





Version 4.6

Prepared By:

UnifyCloud™



Table of Contents

1.Introduction	4
2.Using CloudPilot®	4
2.1 Registration	
2.2 Download CloudPilot [®] Migration Tool	7
3.Cloud migration assessment using CloudPilot®	
3.1 Create Project	
3.1.1 Add Application	
3.1.2 Add Database	
3.1.3 Add Application Dependencies with CloudPilot Tool	
3.1.4 Add Applications with CloudPilot Portal	49
3.1.6 Add Dependencies with CloudPilot Portal	
3.1.7 Upload ZIP files to CloudPilot Portal	
3.3 Scanning Application, Database and Services	
3.3.1 Application Scan	
3.3.2 Database Scan	
3.3.3 Application Dependencies Scan	60
3.4 Upload Scanned Data	62
3.4.1 Assessment Scan Data List	62
3.4.2 Upload Assessment Scanned Data	64
3.4.3 Analyze Data Report	66
3.5 Analysis of Scanned Data	68
3.5.1 Assessment Report	71
3.6 PowerApps Report and Dashboard	86
3.7 Open-Source Component	88
3.8 Java Updates	88
3.8.1 Java Microservice	90
3.8.2 Application Server	91
3.9 Five R Analysis	
4.Cloud migration using CloudPilot®	
4.1 Application Migration to Azure	
4.1.1 Migration Option	
4.2 Application deployed to Azure	
4.3 Post-Migration Report	
4.4 Monitor Application using CloudSupervisor	
4.5 Database Migration	
5. Create Multiple Application Assessment Project	
6. Create Multiple Database Assessment Project	
7.Contact	
7.1 Support	
7.2 Feedback	
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1.Introduction

The purpose of this document is to assist the user (developer) on how to migrate an application, database, or application dependencies to the cloud (Azure) and determine the migration-readiness of an application or database for container services, app services, or virtual machine with the list of recommendations and remedies using **CloudPilot** [®] tool.

2.Using CloudPilot®

2.1 Registration

To use CloudPilot[®] tool, you need to register yourself.

1. Go to https://cloudpilot.cloudatlasinc.com/

You will be directed to the Work or School Account authentication page of the CloudPilot[®] Portal as shown in <u>Figure 1: CloudPilot Home Page</u>.



Figure 1: CloudPilot Home Page

Log in with your Work or School account on CloudPilot portal and click Work
or School Account button to access CloudPilot as shown in Figure 2: Work or
School Account.



NOTE: If you do not have a Work or School account then you can *SignIn with your CloudPilot ID*. To generate a new CloudPilot ID, you can contact our support team on support@unifycloud.com or cloud Pilot ID, you can contact our support gupport@unifycloud.com or cloud Pilot ID, you can contact our support gupport@unifycloud.com or cloud Pilot ID, you can contact our support gupport@unifycloud.com or cloud Pilot ID.

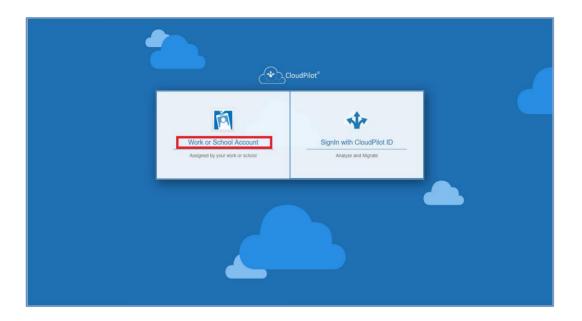


Figure 2: Work or School Account

3. Enter your credentials and click **Next** to login as shown in <u>Figure 3: CloudPilot</u> Portal - Sign In.

NOTE: If you do not have a Microsoft account then you need to create one, click **Create one** button as shown in <u>Figure 3: CloudPilot Portal - Sign In</u>.



Figure 3: CloudPilot Portal - Sign In



Once you have signed into the CloudPilot portal, a report with sample data will appear.

4. On the top right side of the CloudPilot page, click **Already have a license?** button to access the free services of CloudPilot as shown in <u>Figure 4: Sample Report Data</u>.

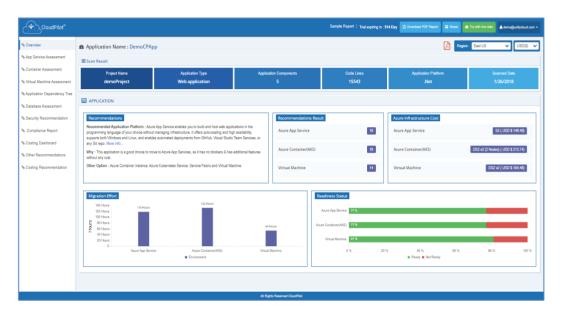


Figure 4: Sample Report Data



2.2 Download CloudPilot[®] Migration Tool

Once you have activated the free trial services of CloudPilot, you will be redirected to the CloudPilot product page as shown in <u>Figure 5: CloudPilot Product Page</u>.

NOTE:

- 1. On the top right side of the CloudPilot product page, click **Reports with Sample Data**, if you need to review the sample reports again, as shown in Figure 5: CloudPilot Product Page.
- 2. Once you are registered with CloudPilot portal, you will be able to download CloudPilot Migration Tool.
- 3. In case, you want to re-download **CloudPilot Migration Tool**, on the top left side of the CloudPilot dashboard, click **Download Product** tab as shown in Figure 5: CloudPilot Product Page.



Figure 5: CloudPilot Product Page

- Click **Download** and follow the instructions to install the **CloudPilot Migration Tool** on your machine as shown in <u>Figure 6: CloudPilot Migration</u>
 Tool.
- 6. For more information on how to use the **CloudPilot Migration Tool**, click **the Download User Guide** button as shown in <u>Figure 6: CloudPilot Migration</u> Tool.

NOTE: CloudPilot Migration Tool is compatible with **Windows 7 and above**. Migration not supported on Windows 7 version



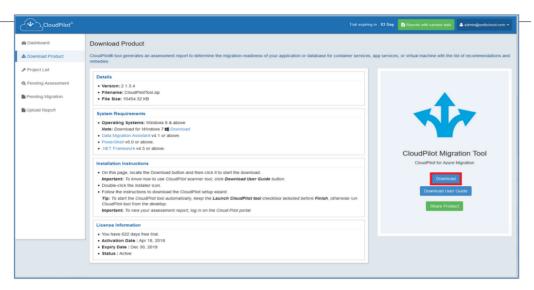


Figure 6: CloudPilot Migration Tool

7. NOTE: After the CloudPilot Migration Tool is downloaded on your machine, you need to upload and scan your data as per the steps mentioned in Chapter - 3: Cloud migration assessment using CloudPilot® of this user guide.

the application is uploaded and scanned by the CloudPilot Migration Tool, click **Try with live data** to check your own application to get its migration assessment as shown in <u>Figure 7: Try with live data</u>.

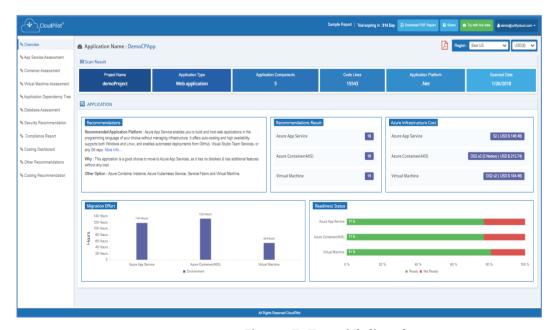


Figure 7: Try with live data



3. Cloud migration assessment using CloudPilot®

Follow the steps below to do cloud migration assessment of an application, database and other application dependencies that need to be migrated to Azure using **CloudPilot** [®] tool:

NOTE: At any time during the cloud migration assessment if you need to know about any text boxes just hover over **Help** button .

NOTE: Fields marked with * are mandatory and needs to be filled or selected as per choice.

NOTE: At any time during the cloud migration assessment if you need to make any changes in your previous windows, click **Back** if applicable.

NOTE: tab on the left-side of the CloudPilot Migration Tool is to add a new project.

NOTE: tab on the left-side of the CloudPilot Migration Tool is to redirect to the window with the list of the projects if any.

NOTE: tab on the left-side of the CloudPilot Migration Tool is to redirect to the window with image about viewing log files.

NOTE: To use the CloudPilot® tool:

- 1. You need to register on https://cloudpilot.cloudatlasinc.com/
- 2. You need to download CloudPilot Migration Tool on your system.

For more details, please go through our Chapter - 2 - Using CloudPilot®.



3.1 Create Project

1. Double-click the icon as shown in <u>Figure 8: CloudPilot Tool Icon</u>.



Figure 8: CloudPilot Tool Icon

A welcome screen with the title **CloudPilot** is displayed as shown in <u>Figure 9: Welcome Screen</u>.

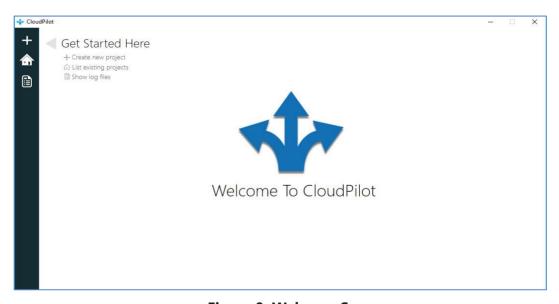


Figure 9: Welcome Screen



2. To start with a **New Project**, click tab on the left-side of the CloudPilot Migration Tool as shown in <u>Figure 10: New Project</u>.

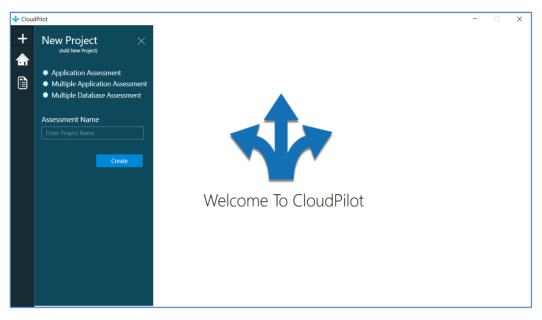


Figure 10: New Project

- 3. Select the specific radio button for the type of project you want to create. There are three options given below
 - **I.** Application Assessment For Assessment of Single Application and Single Database at a time.
 - **II.** Multiple Application Assessment For Assessment of Multiple Application at a time.
 - III. Multiple Database Assessment For Assessment of Multiple Database at a time.
- 4. Select Application Assessment radio button. Enter the project name in the text box and click **Create** as shown in Figure 11: Create Project.

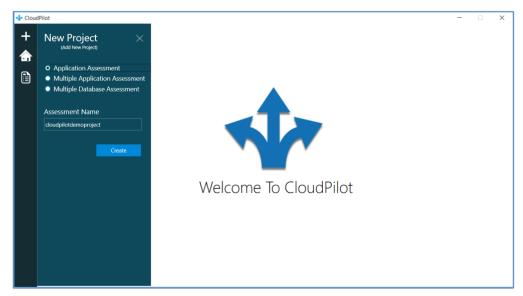


Figure 11: Create Project



3.1.1 Add Application

- 1. Enter the Application name.
- 2. Select Application Type as a Web application.

NOTE: You need to follow the same procedure for Windows services or Console application types.

3. Select Platform as Microsoft.Net as shown in

Figure 12: Add Application Details – Microsoft.Net.

NOTE: If you need to skip the details to be added later, click **Skip** you will be redirected to the screen as shown in <u>Figure 32: Thumbnails</u>.

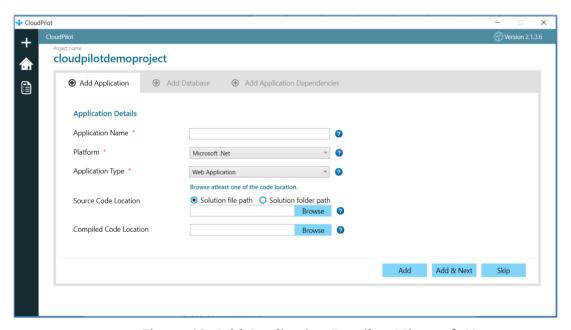


Figure 12: Add Application Details – Microsoft.Net

4. Under the Source Code Location section, click **Browse** and provide the path of your source application.



If you have the solution file, select the **Solution file path** radio button otherwise, you can directly select the project folder path by selecting the **Solution folder path** radio button as shown in <u>Figure 13</u>: <u>Application - Source Code Location</u>.

NOTE: Browse at least one of the Code Location at one time.

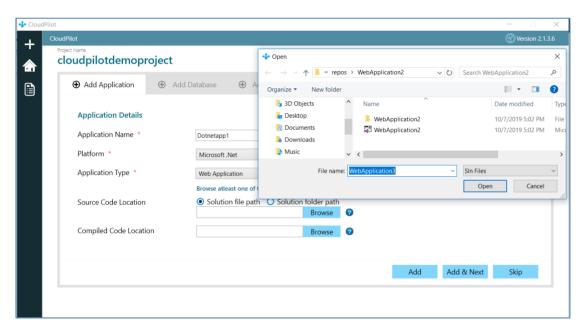


Figure 13: Application - Source Code Location

5. Provide details of Compiled Code Location, click **Browse** and provide the path of your compiled code location as shown in <u>Figure 14</u>: <u>Browse – Compiled Code location</u>.



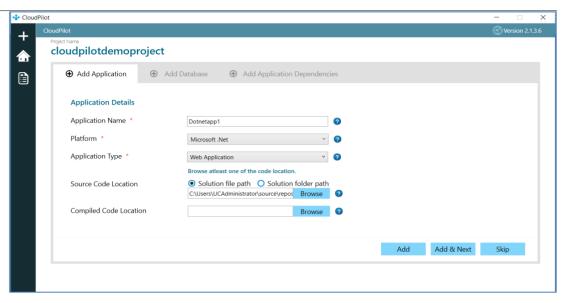


Figure 14: Browse – Compiled Code location



- 6. Once the application details are complete, click Add & Next.
- 7. You will get a dialog box with a message "Application added successfully," click **OK** as shown in Figure 15: Application Added Successfully.

NOTE: If you want to add more than 1 application at one time, click Add.

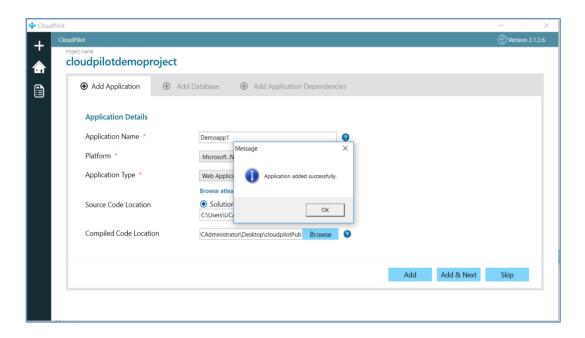
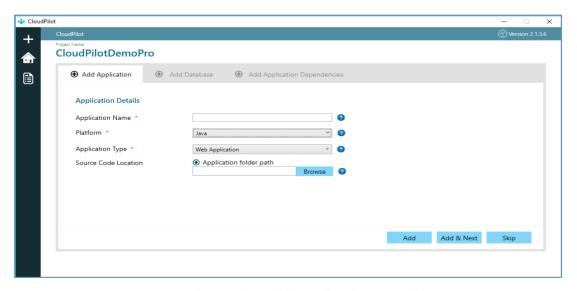


Figure 15: Application Added Successfully

8. Select Platform as Java as shown in Figure 16: Add Application Details – Java.

NOTE: If you need to skip the details to be added later, click **Skip** you will be redirected to the screen as shown in <u>Figure 32: Thumbnails</u>.





9. Under the Application folder path section, click Browse and provide the path of your Java source application.

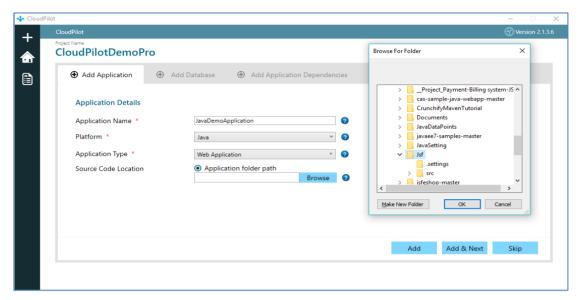


Figure 17: Java Application - Source Code Location

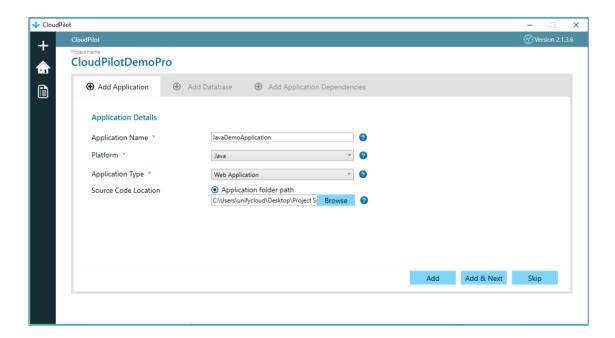


Figure 18: All Details for Java Application provided

10. Once the Java application details are complete, click **Add & Next.**



11. You will get a dialog box with a message "Application added successfully," click **OK** as shown in Figure 19: Java Application Added Successfully.

NOTE: If you want to add more than 1 Java application at one time, click Add.

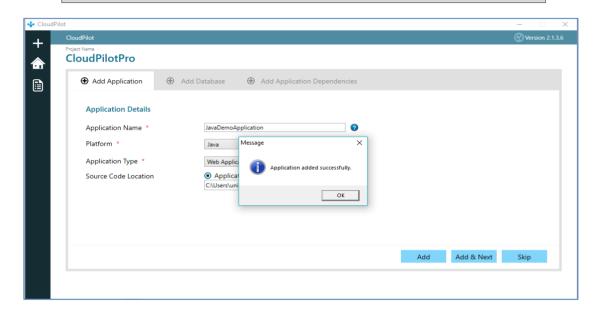


Figure 19: Java Application Added Successfully

NOTE: In a project, you can add applications and dependencies with either the .Net or Java or PHP application platform. You cannot have applications of multiple platforms in a single project.



12. Select Platform as PHP as shown in Figure 19 A: Add Application Details – Php.

NOTE: If you need to skip the details to be added later, click **Skip** you will be redirected to the screen as shown in <u>Figure 32: Thumbnails</u>.

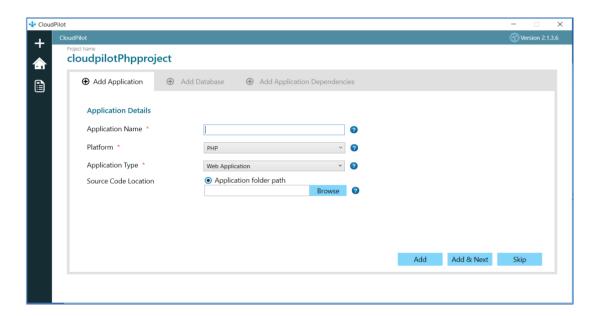


Figure 19 A: Add Application Details -PHP

13. Under the Application folder path section, click Browse and provide the path of your PHP source application.



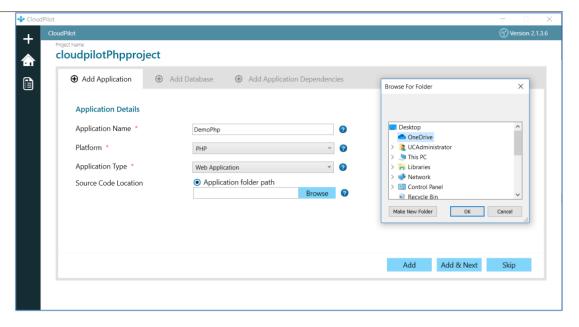


Figure 19 B: PHP Application - Source Code Location



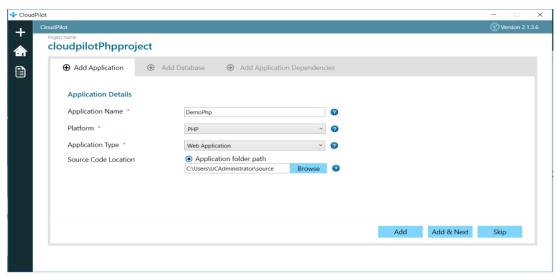


Figure 19 C: All Details for PHP Application provided

- 14. Once the PHP application details are complete, click Add & Next.
- 15. You will get a dialog box with a message "Application added successfully," click **OK** as shown in Figure 19 D: PHP Application Added Successfully.

NOTE: If you want to add more than 1 Java application at one time, click **Add**.

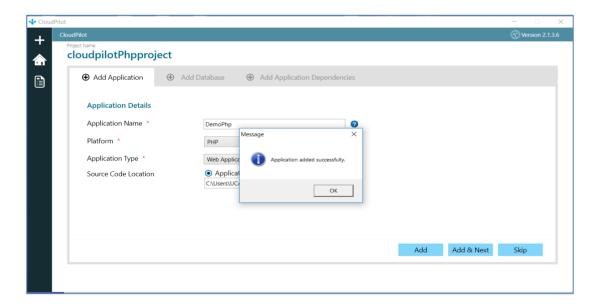


Figure 19 D: PHP Application Added Successfully



3.1.2 Add Database

IMPORTANT: *Logged in user must have SysAdmin permission to the Database server.

IMPORTANT: Microsoft Data Migration Assistant should be installed to assess database. If you haven't downloaded, click on **click here** button to download as shown in <u>Figure 20</u>: Add <u>Database Details</u>.

1. After the installation of Microsoft Data Migration Assistant. Enter the details of your **On-premises Database Server** as shown in <u>Figure 20</u>: Add <u>Database Details</u>.

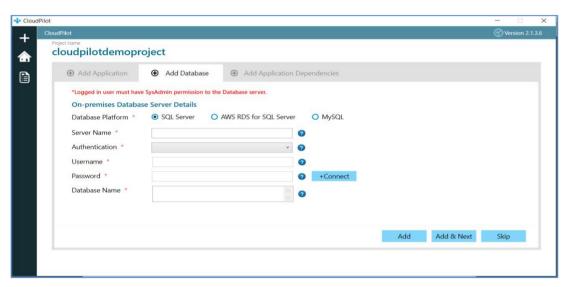


Figure 20: Add Database Details

2. Select the desired Database Platform radio button.

NOTE: For MySQL, database platform refer to Figure 26: MySQL - Database Platform.

SQL Server – Database Platform

- 1. Enter Server Name.
- 2. Select the Authentication to your choice either to **SQL Server Authentication or** Windows Authentication.



NOTE: For SQL Server Authentication, you need to enter your credentials and click **+Connect** to connect to the cloud remote server.



SQL Server Authentication

- 1. Select authentication as SQL Server Authentication.
- 2. Enter your credentials and click **+Connect** to connect to the cloud remote server as shown in <u>Figure 21: Authentication SQL Server</u>.

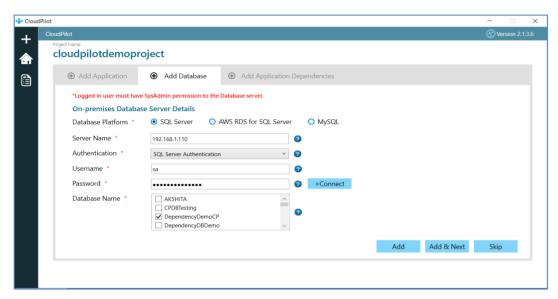


Figure 21: Authentication – SQL Server

3. Click Add & Next.

NOTE: If you want to add more than 1 database select the **Database Name** check box and click **Add**.

4. You will get a dialog box with a message "1 Database (s) added", click **OK** as shown in Figure 22: Database Added.

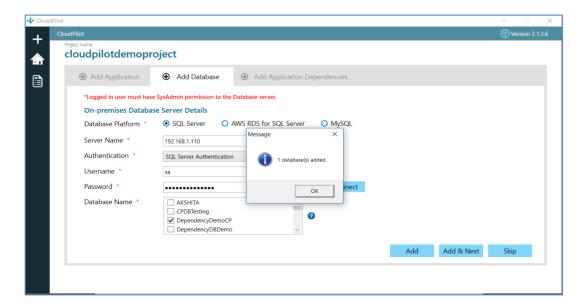




Figure 22: Database Added



Windows Authentication

1. Select authentication as Windows as shown in <u>Figure 23: Authentication – Windows</u>.

NOTE: If you select **Windows Authentication**, no username and password need to be entered.

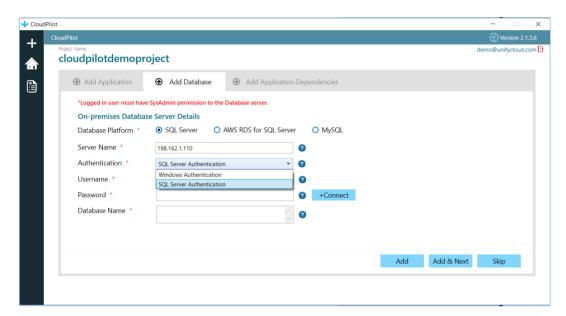


Figure 23: Authentication – Windows

2. Select the specific Database Name check box as shown in <u>Figure 24: Select Database Name</u>.

NOTE: If you want to add more than 1 database, select the **Database Name** check box and click **Add**.



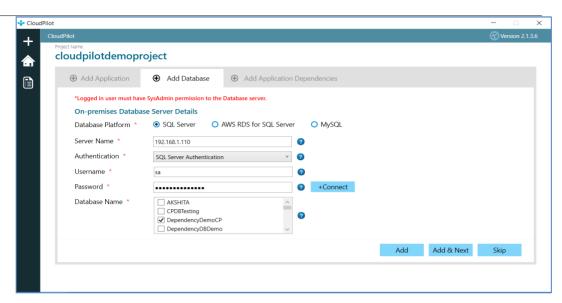


Figure 24: Select Database Name



- 3. Once the Database details are complete, click **Add & Next**.
- 4. You will get a dialog box with a message "1 Database(s) added successfully ", click **OK** as shown in Figure 25: Database Added.

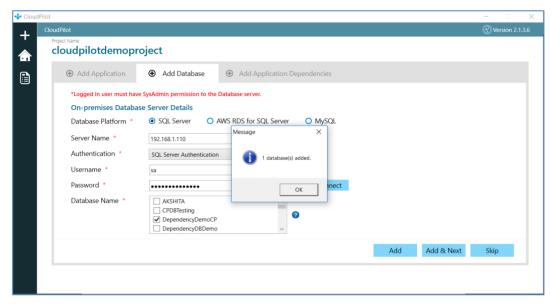


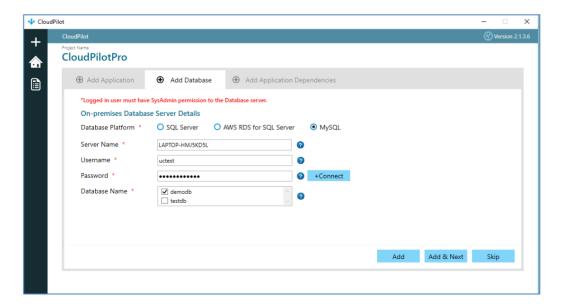
Figure 25: Database Added

MySQL - Database Platform

- 1. Enter the Server Name. Enter your credentials and click **+Connect** to connect to the cloud remote server as shown in Figure 26: MySQL Database Platform .
- Select the specific Database Name check box as shown in Figure 26: MySQL

 Database_Platform.

NOTE: If you want to add more than 1 database, select the **Database Name** check box and click **Add**.





- 3. Once the Database details are complete, click **Add & Next**.
- 4. You will get a dialog box with a message "1 Database(s) added successfully ", click **OK** as shown in Figure 27: MySQL Database Added.

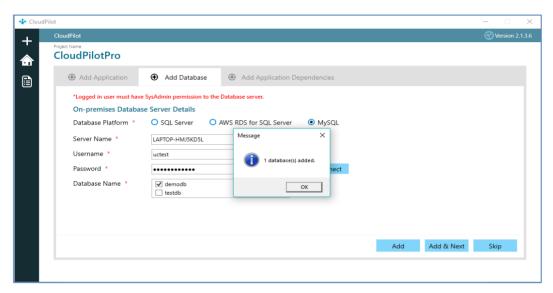
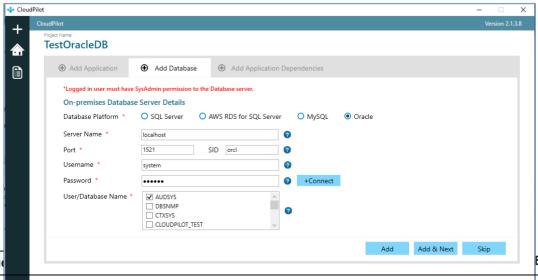


Figure 27: MySQL Database Added

Oracle- Database Platform

- 1. Enter the Server Name.
- 2. Enter your credentials and click **+Connect** to connect to the cloud remote server as shown in <u>Figure 28: Oracle- Database Platform.</u>
- Select the specific Database Name check box as shown below <u>Figure 28:</u> <u>Oracle</u>
 - Database Platform.

NOTE: If you want to add more than 1 database, select the **Database Name** check box and click **Add**.



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Figure 28: Oracle- Database Platform

- 4. Once the Database details are complete, click Add & Next.
- 5. You will get a dialog box with a message "1 Database(s) added successfully ", click **OK** as shown in Figure 28: Oracle Database Added.

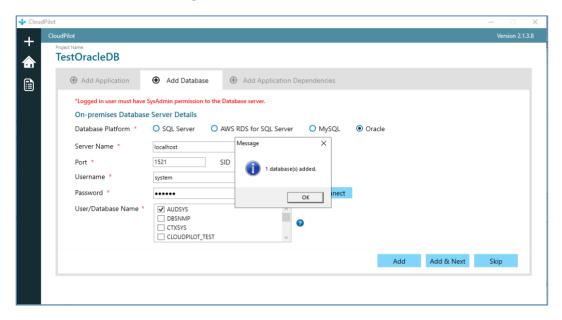


Figure 28: Oracle Database Added

PostgreSQL - Database Platform

- Enter the Server Name. Enter your credentials and click +Connect to connect to the cloud remote server as shown in Figure 28A: PostgreSQL - Database Platform.
- 6. Select the specific Database Name check box as shown in Figure 28A: MySQL Database_Platform.

NOTE: If you want to add more than 1 database, select the **Database Name** check box and click **Add**.



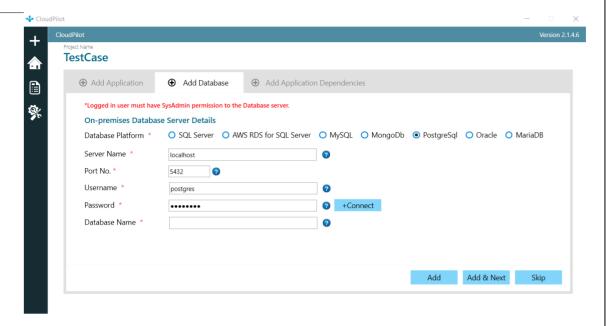


Figure 28A: PostgreSQL - Database Platform

7. If you want to add more than one database, select database names as shown in Figure 28B below.

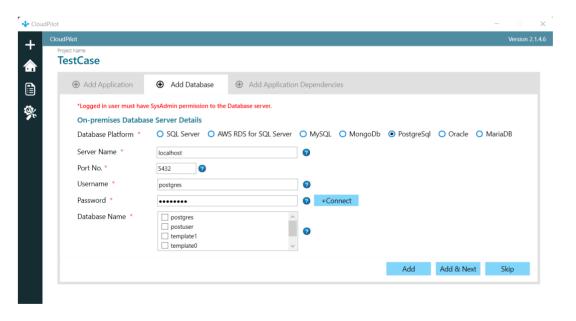


Figure 28B: PostgreSQL – Select Database Name

- 8. Once the Database details are complete, click **Add & Next.**
- 9. You will get a dialog box with a message "1 Database(s) added successfully ", click **OK** as shown in Figure 28C: PostgreSQL Database Added.



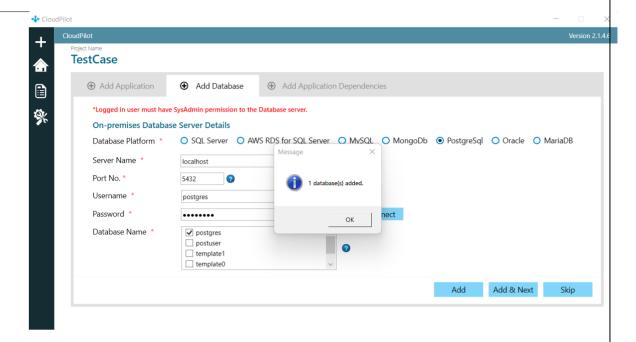


Figure 28C: PostgreSQL - Database added successfully

10. . After the database is added successfully, you can start the assessment. Click on the button shown in <u>Figure 28D: Start Assessment.</u>

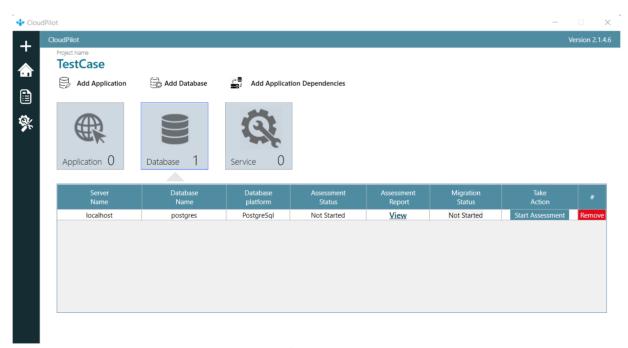


Figure 28D: Start Assessment

11. After the database is assessed, you can sign in and upload as shown in <u>Figure 28E: Sign in & Upload.</u>



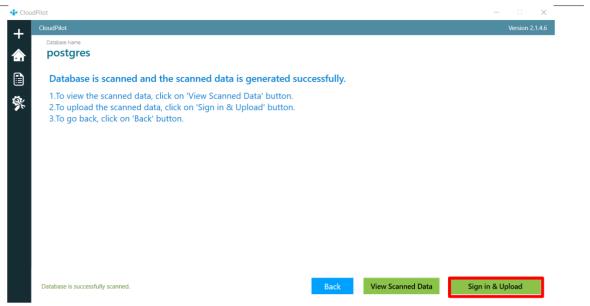


Figure 28E: Sign in and upload

12. After clicking on sign and upload, you will land on the sign-in page for the CloudPilot portal. Enter your credentials and click on sign in as shown in <u>Figure 28 Ei.</u> below.

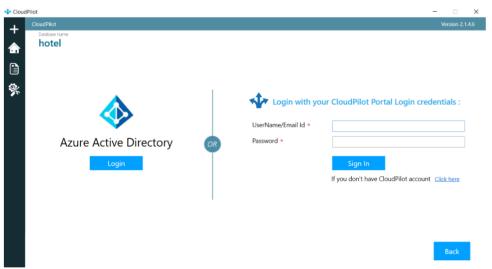


Figure 28E i: CloudPilot Portal Sign-in

13. After signing in to the CloudPilot portal, please access the dashboard, and click on the 'analysis' button as shown in <u>Figure 28F.</u>

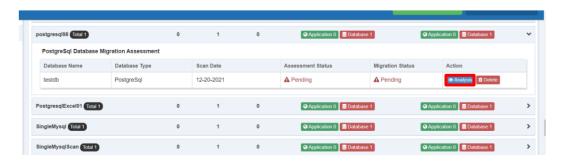




Figure 28F: PostgreSQL Assessment Dashboard

14. After database analysis is conducted by the tool, click on 'Overview' section as shown in Figure 28G: PostgreSQL Database Report.

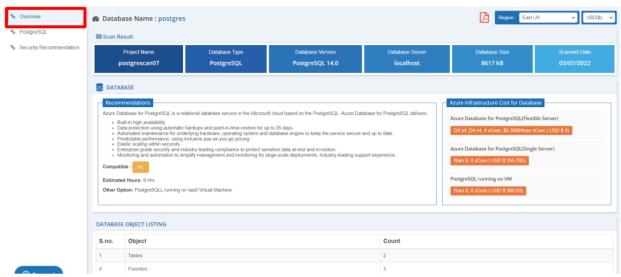


Figure 28G: PostgreSQL Database Report

15. Click on the 'Postgre SQL' section to get access to PostgreSQL recommendations, as shown in Figure 28H: PostgreSQL Recommendations.

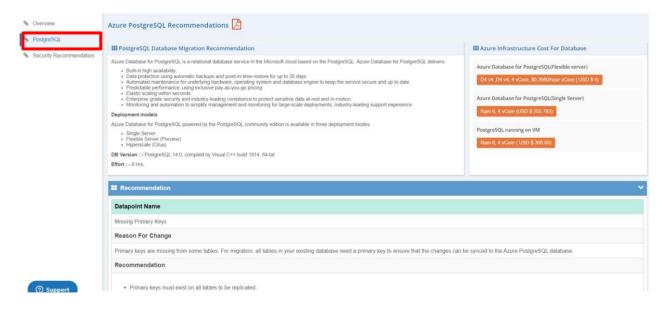


Figure 28H: PostgreSQL Recommendations

16. In the CloudPilot portal, click on the "Go to Portfolio" button. You will get access to a page as shown in Figure 281: PostgreSQL Portfolio Dashboard. Click



on the button displaying the number of PostgreSQL Databases, as shown in the figure below.

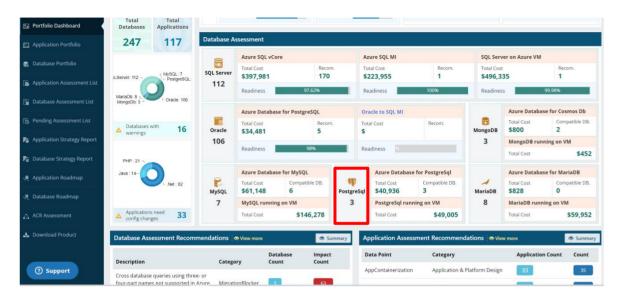


Figure 28I: Database Portfolio Dashboard

17. After clicking on the PostgreSQL Database number, you will get access to PostgreSQL Assessment Portfolio as shown in Figure 28J: PostgreSQL Assessment Portfolio.

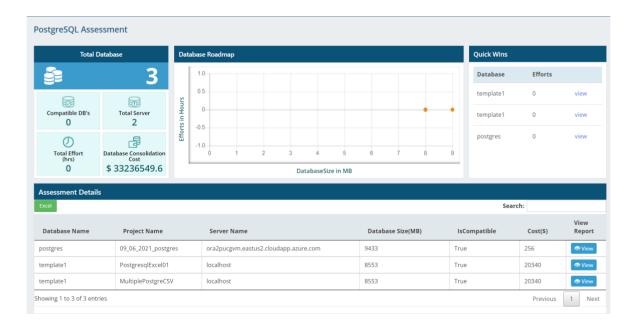


Figure 28J: Database Portfolio Dashboard

MongoDB Database Platform

1. Enter the Server Name. Enter your credentials and click **+Connect** to connect to the



cloud remote server as shown in Figure 28K: MongoDB - Database Platform.

2. Select the specific Database Name check box as shown in <u>Figure 28K: MongoDB</u> - <u>Database Platform.</u>

NOTE: If you want to add more than 1 database, select the **Database Name** check box and click **Add**.

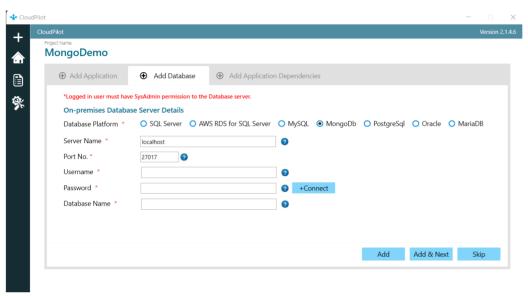


Figure 28K: MongoDB Database Platform

3. If you want to add more than one database, select database names as shown in <u>Figure 28L below.</u>

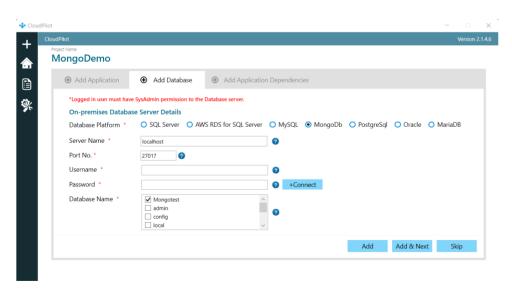


Figure 28L: MongoDB Select Database Name

- 4. Once the Database details are complete, click **Add & Next.**
- 5. You will get a dialog box with a message "1 *Database(s) added successfully* ", click **OK** as shown in Figure 28M: MongoDB Database Added.



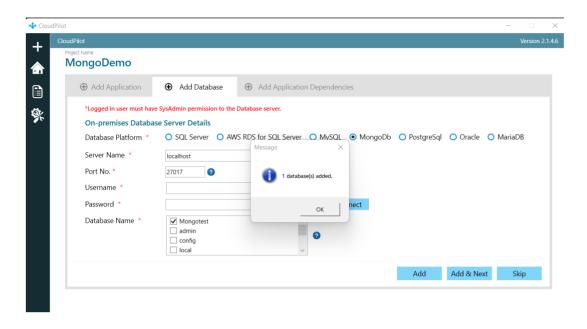


Figure 28M: MongoDB Database added successfully

6. After the database is added successfully, you can start the assessment. Click on the button shown in Figure 28N: Restart Assessment.

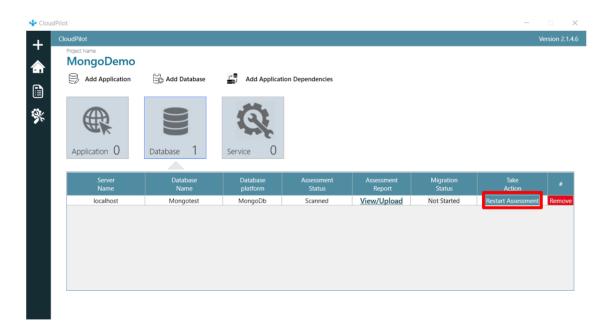


Figure 28N: Restart Assessment

7. After the database is assessed, you can sign in and upload as shown in <u>Figure 280: Sign in & Upload.</u>



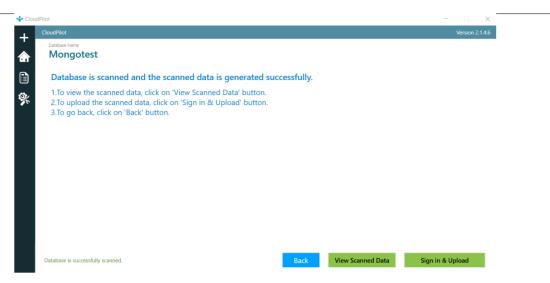


Figure 280: Sign in and upload

8. After clicking on sign and upload, you will land on the sign-in page for the CloudPilot portal. Enter your credentials and click on sign in as shown in Figure 28 P below.

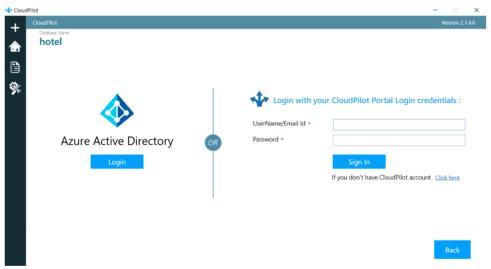


Figure 28P: CloudPilot Portal Sign-in

9. After signing in to the CloudPilot portal, please access the dashboard, and click on the 'analysis' button as shown in <u>Figure 28Q.</u>



Figure 28Q: MongoDB Assessment Dashboard

10. After database analysis is conducted by the tool, click on 'Overview' section as shown in 2023[©] UnifyCloud LLC | Confidential | For Internal Use Only Page | 37



Figure 28R: PostgreSQL Database Report.

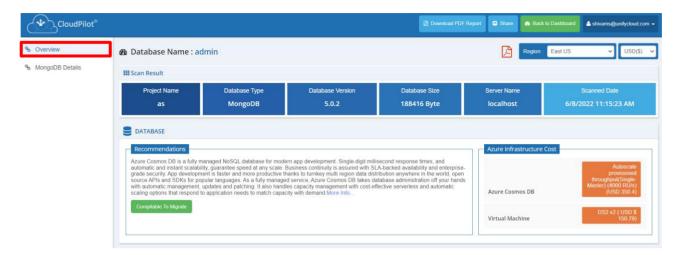


Figure 28R: MongoDB Database Report

11. Click on the 'MongoDB' section to get access to MongoDB recommendations, as shown in <u>Figure 28S: MongoDB Recommendations.</u>

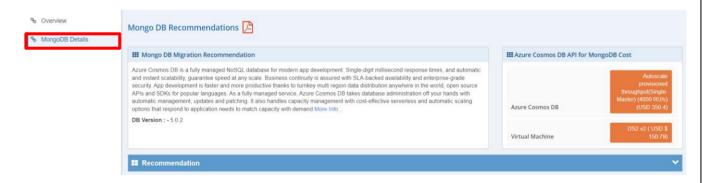


Figure 28S: MongoDB Recommendations

12. In the CloudPilot portal, click on the "Go to Portfolio" button. You will get access to a page as shown in Figure <u>28T: MongoDB Portfolio Dashboard.</u> Click on the button displaying the number of MongoDB Databases, as shown in the figure below.



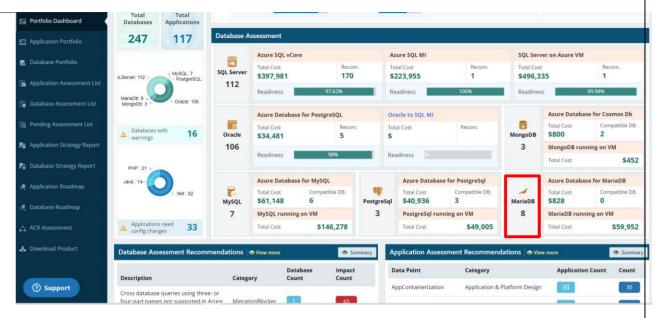


Figure 28T: Database Portfolio Dashboard

13. After clicking on the MongoDB Database number, you will get access to MongoDB Assessment Portfolio as shown in Figure 28U: MongoDB Assessment Portfolio.

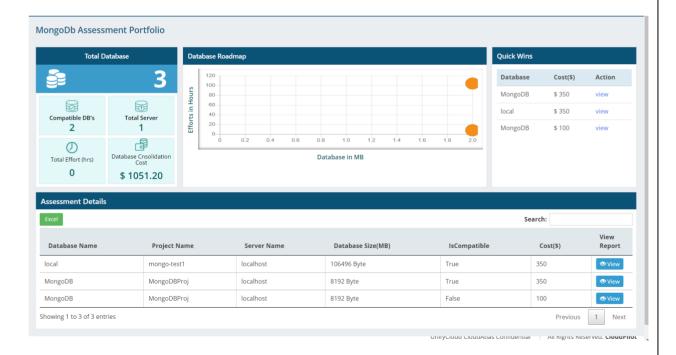


Figure 28U: Database Portfolio Dashboard



MariaDB Database Platform

- 1. Enter the Server Name. Enter your credentials and click **+Connect** to connect to the cloud remote server as shown in <u>Figure 28 V: MariaDB Database Platform</u>.
- 2. Select the specific Database Name check box as shown in <u>Figure 28 V: MariaDB</u> <u>Database Platform.</u>

NOTE: If you want to add more than 1 database, select the **Database Name** check box and click **Add.**

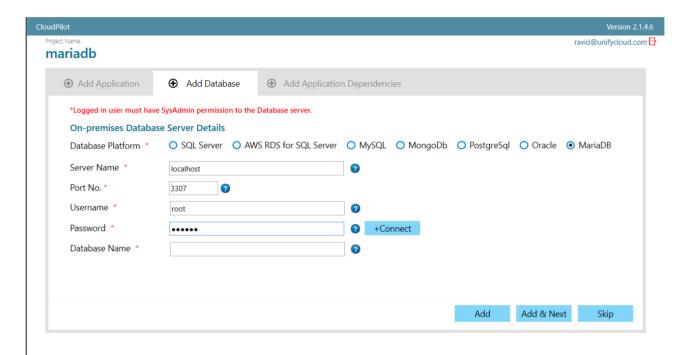


Figure 28 V: MariaDB Database Platform

3. If you want to add more than one database, select database names as shown in <u>Figure 28 W below.</u>



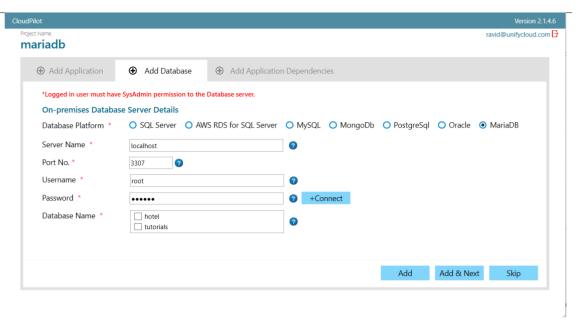


Figure 28 W: MariaDB Select Database Name

4. Alternatively, you can also import credentials by uploading an excel sheet, as shown in Figure 28 X.

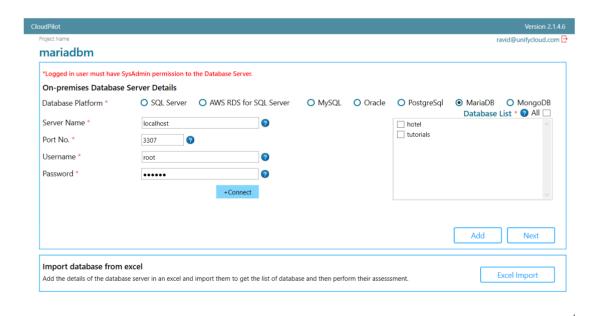


Figure 28 X: MariaDB Import Excel file

- 5. Once the Database details are complete, click **Add & Next.**
- 6. You will get a dialog box with a message "1 Database(s) added successfully ", click **OK** as shown in Figure 28 Y: MariaDB Database Added.



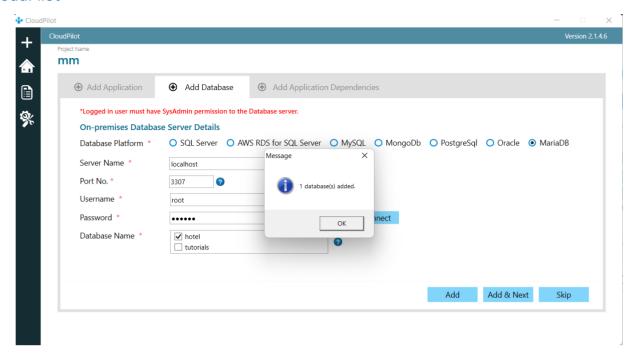


Figure 28 Y: MariaDB Database added successfully

7. After the database is added successfully, you can start the assessment. Click on the button shown in <u>Figure 28 Z: Start Assessment</u>.

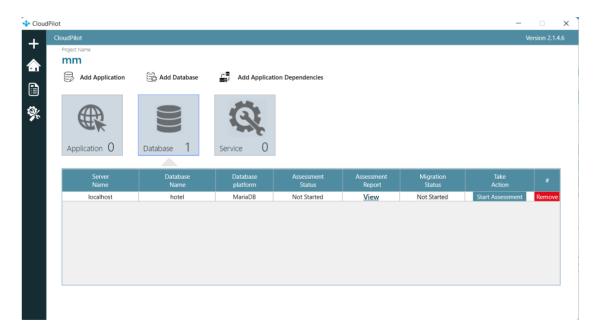


Figure 28 Z: Start Assessment

8. After the database is assessed, you can sign in and upload as shown in <u>Figure 28AA: Sign</u> in & <u>Upload</u>.



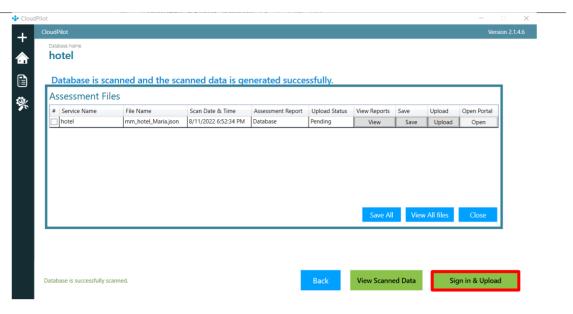


Figure 28 AA: Sign in and upload

9. After clicking on sign and upload, you will land on the sign-in page for the CloudPilot portal. Enter your credentials and click on sign in as shown in Figure 28 AB below.

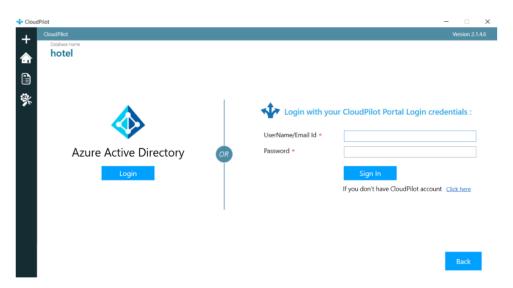


Figure 28 AB: CloudPilot Portal Sign-in

10. After signing in to the CloudPilot portal, please access the dashboard, and click on the 'analysis' button as shown in Figure 28 AC.



Figure 28 AC: MariaDB Assessment Dashboard



11. After database analysis is conducted by the tool, click on 'Overview' section as shown in Figure 28 AD: PostgreSQL Database Report.

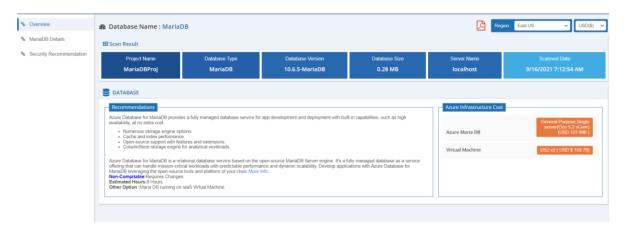


Figure 28 AD: MariaDB Database Report

12. Click on the 'MariaDB' section to get access to MariaDB recommendations, as shown in <u>Figure 28</u> <u>AE: MariaDB Recommendations.</u>

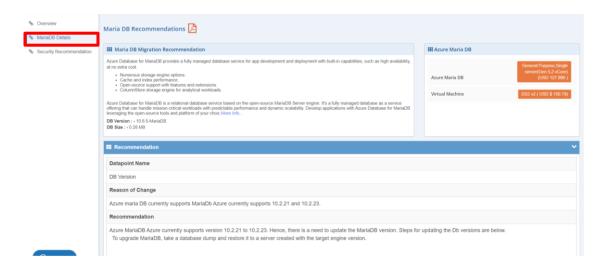


Figure 28 AE: MariaDB Recommendations

13. In the CloudPilot portal, click on the "Go to Portfolio" button. You will get access to a page as shown in Figure 28 AF: MariaDB Portfolio Dashboard. Click on the button displaying the number of MariaDB Databases, as shown in the figure below.



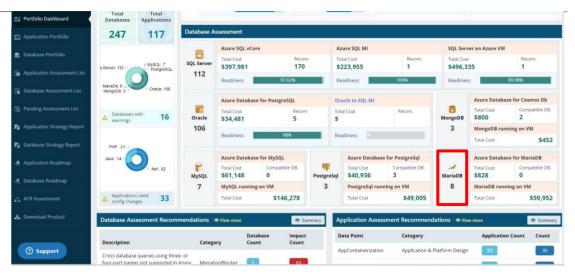


Figure 28 AF: Database Portfolio Dashboard

14. After clicking on the MariaDB Database number, you will get access to MariaDB Assessment Portfolio as shown in Figure 28 AG: MariaDB Assessment Portfolio.



Figure 28 AG: Database Portfolio Dashboard



3.1.3 Add Application Dependencies with CloudPilot Tool

- 1. Enter the Service name.
- 2. Select Service Type as Web API.

NOTE: You need to follow the same procedure for Web services or WCF service types.

3. Select Platform as Microsoft.Net as shown in <u>Figure 29: Add Application</u> <u>Dependencies</u>.

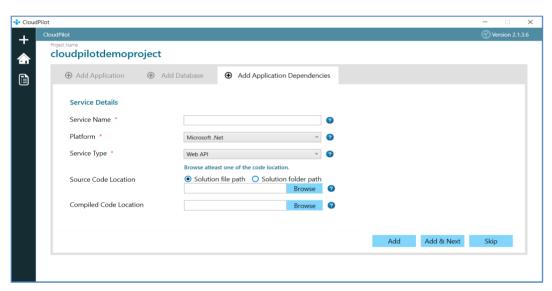


Figure 29: Add Application Dependencies

4. Under the Source Code Location section, click **Browse** and provide the path of your source application.

If you have the solution file, select the **Solution file path** radio button otherwise, you can directly select the project folder path by selecting the **Solution folder path** radio button as shown in <u>Figure 29A: Application Dependencies - Source Code Location</u>.

NOTE: Browse at least 1 of the Code Location at one time.



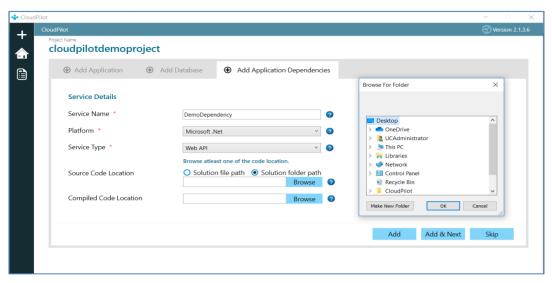


Figure 29A: Application Dependencies - Source Code Location

5. Provide details of Compiled Code Location, click **Browse** and provide the path of your compiled code location as shown in <u>Figure 30: Browse – Compiled Code location</u>.

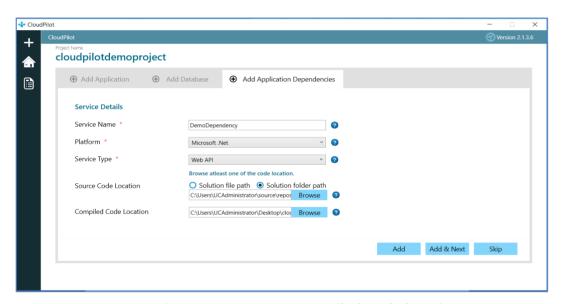


Figure 30: Browse - Compiled Code location

- 6. Once the application details are complete click **Add & Next.**
- 7. You will get a dialog box with a message "Service added successfully," click **OK** as shown in Figure 31: Application Added Successfully.



NOTE: If you want to add more than 1 application dependencies at one time, click **Add**.

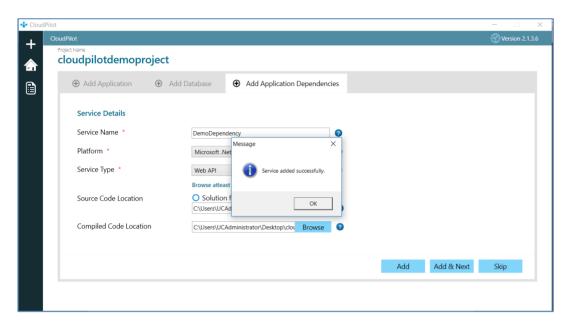


Figure 31: Application Dependencies Added Successfully

8. Once the Application, Database and Service details are added, respective thumbnails are seen with the quantity as shown in <u>Figure 32: Thumbnails</u>.

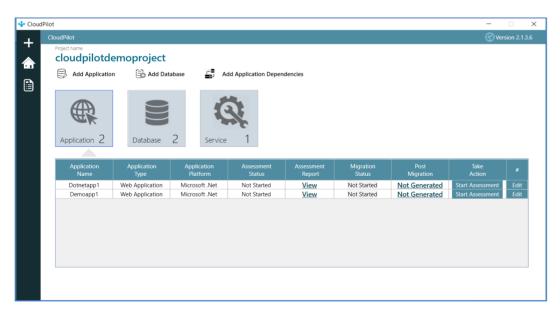


Figure 32: Thumbnails



3.1.4 Add Applications with CloudPilot Portal

- 1. Go to the CloudPilot portal: https://cloudpilot.cloudatlasinc.com/ and login with your credentials.
- **2.** Once dashboard is launched, click on the 'Upload Report' option, as shown in <u>Figure 32</u> A: CloudPilot Portal Dashboard.



Figure 32 A: CloudPilot Portal Dashboard

3. In the upload report screen, you will see the upload application option. Choose your application language and browse for XML file, as shown <u>Figure 32 B: Upload Report Page.</u>

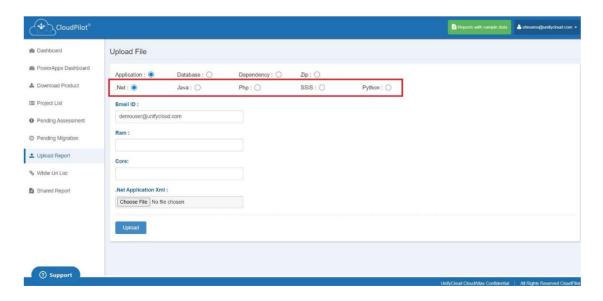


Figure 32 B: Upload Report Page

4. Once you have selected your .xml file, click on the 'upload' button as shown in Figure 32



C: Application Upload Report.

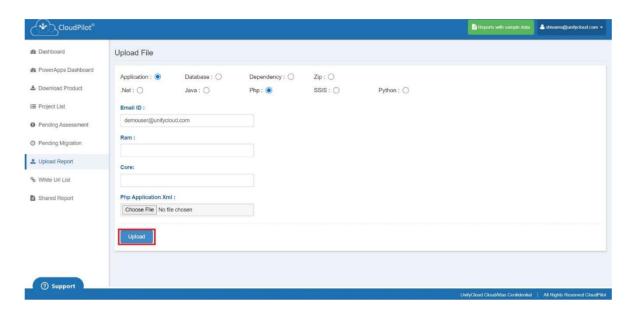


Figure 32 C: Application Upload Report

5. Your application report is successfully uploaded and can be accessed through the dashboard.

3.1.5 Add Database with CloudPilot Portal

- **1.** Go to the CloudPilot portal: https://cloudpilot.cloudatlasinc.com/ and login with your credentials.
- 2. Once dashboard is launched, click on the 'Upload Report' option, as shown in <u>Figure 32</u> D: CloudPilot Portal Dashboard.





3. In the upload report screen, you will see the upload database option. Choose your database language and browse for .JSON file, as shown in <u>Figure 32 E: Application Upload Report Page.</u>

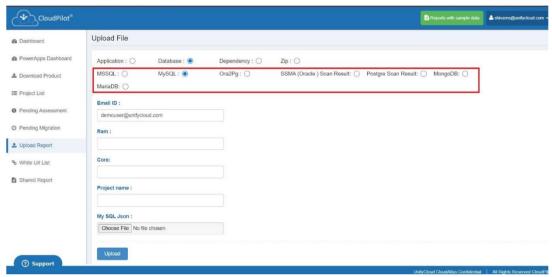


Figure 32 E: Application Upload Report Page

4. If you select MS SQL database language, you will be required to upload three types of SQL files - Azure SQL JSON, SQL on VM JSON and SQL Managed Instance JSON as shown in Figure 32 F: MS SQL Database Upload Page.



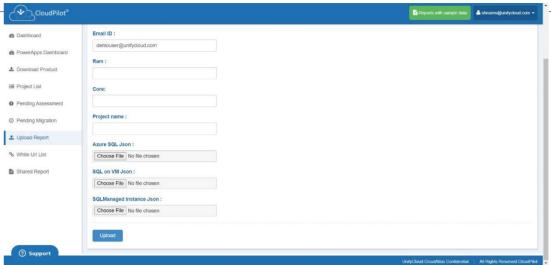


Figure 32 F: MS SQL Database Upload Page

5. Once you have browsed for your file/files, click on the 'Upload' button as shown in Figure 32 G: Database Upload Report Page.

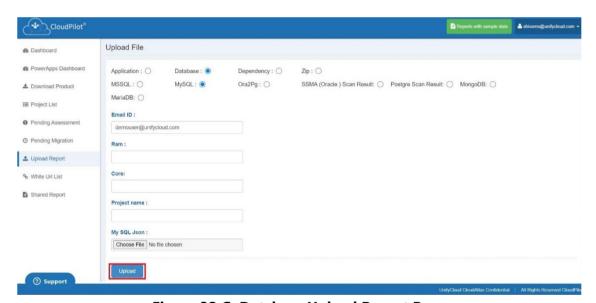


Figure 32 G: Database Upload Report Page

6. Your database report is successfully uploaded and can be accessed through the dashboard.



3.1.6 Add Dependencies with CloudPilot Portal

- **1.** Go to the CloudPilot portal: https://cloudpilot.cloudatlasinc.com/ and login with your credentials.
- 2. Once dashboard is launched, click on the 'Upload Report' option, as shown in <u>Figure 32</u> H: CloudPilot Portal Dashboard.



Figure 32 H: CloudPilot Portal Dashboard

3. In the upload report screen, you will see the upload dependency option. Choose your application dependency language and choose .NET or Java XML file from the pop-up browser, as shown in Figure 32 I: Choose XML file for upload.

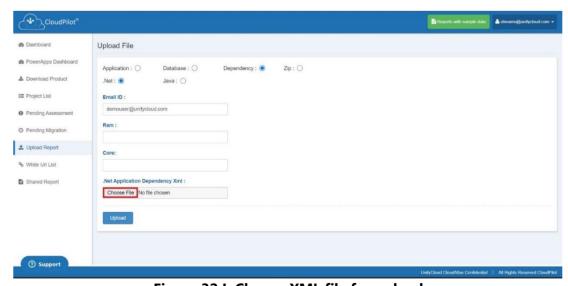


Figure 32 I: Choose XML file for upload



4. If you select MS SQL database language, you will be required to upload three types of SQL files - Azure SQL JSON, SQL on VM JSON and SQL Managed Instance JSON as shown in Figure 32 J: MS SQL Database Upload Page.

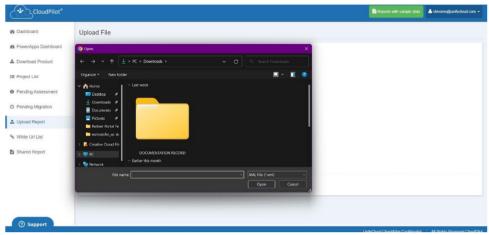


Figure 32 J: MS SQL Database Upload Page

5. Once you have selected the file, click on the 'Upload' button **as shown in** Figure 32 K:

<u>Database Upload Report Page.</u>

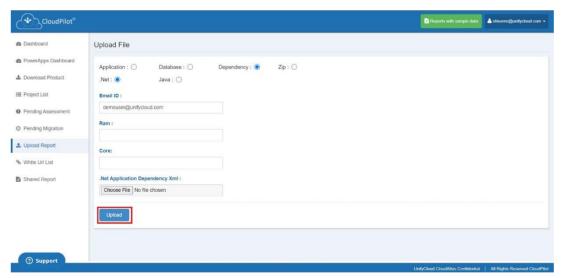


Figure 32 K: Database Upload Report Page

6. Your dependency report is successfully uploaded and can be accessed through the dashboard.



3.1.7 Upload ZIP files to CloudPilot Portal

- **1.** Go to the CloudPilot portal: https://cloudpilot.cloudatlasinc.com/ and login with your credentials.
- **2.** Once dashboard is launched, click on the 'Upload Report' option, as shown in <u>Figure 32</u> L: CloudPilot Portal Dashboard.



Figure 32 L: CloudPilot Portal Dashboard

3. In the upload report screen, you will see the upload ZIP file option. This option enables users to upload their applications, databases, and dependencies together in a single folder, as shown in Figure 32 M: Zip File Upload.

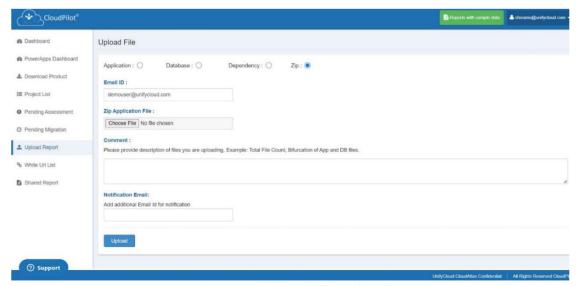


Figure 32 M: ZIP File Upload



4. Once you have created a ZIP file containing the XML and JSON files for your application, databases, and dependencies; click on the 'choose file' option as shown in Figure 32 N:

Choose ZIP File.

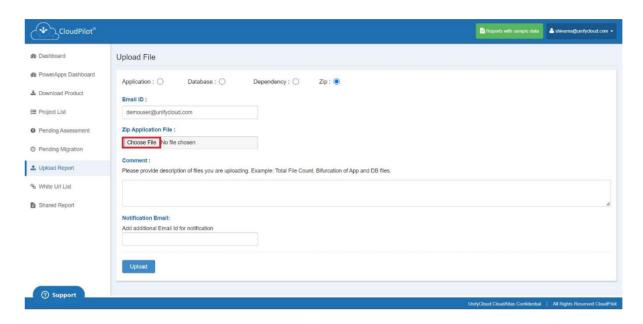


Figure 32 N: Choose ZIP File

5. Once you have selected the file, click on the 'Upload' button as shown in <u>Figure 32 O:</u>

<u>Database Upload Report Page.</u>

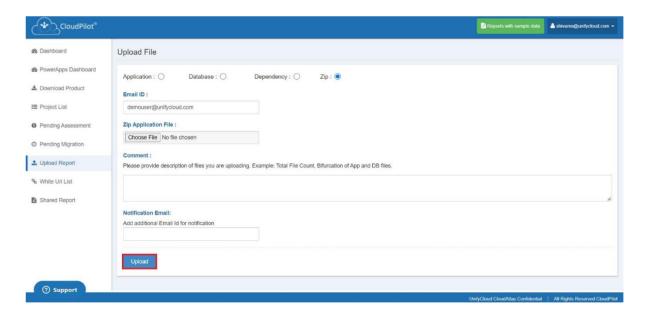


Figure 32 O: Database Upload Report Page

6. Your ZIP File is successfully uploaded, and your applications, databases, and dependencies can be accessed through the CloudPilot dashboard.



3.3 Scanning Application, Database and Services

3.3.1 Application Scan

Microsoft. Net Technology

 To start the assessment of the application, click **Application** thumbnail and then click **Start Assessment** as shown in <u>Figure 33</u>: <u>Microsoft.Net Application</u> – Scan.

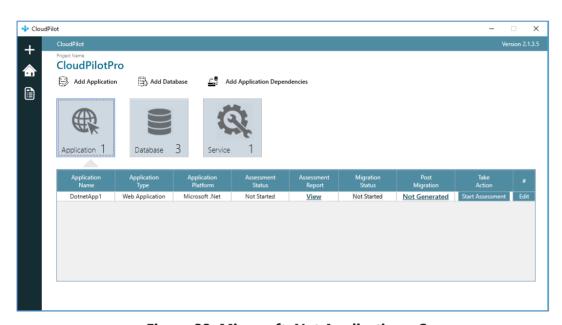


Figure 33: Microsoft. Net Application – Scan

NOTE: Based on the survey conducted on Application and Infrastructure Platform, the questionnaire has been created here.

Application Platform Details

1. Select the specific radio button for Application Platform then click **Next** as shown in <u>Figure 34</u>: <u>Dot Net Web Application Platform</u>.



NOTE: At any time during the questionnaire, if you need to make any changes in your previous windows, click **Back** if applicable.

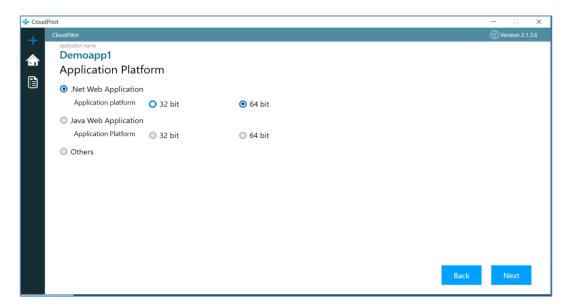


Figure 34: Dot Net Web Application Platform

Java Platform

 To start the assessment of the Java application, click **Application** thumbnail and then click **Start Assessment** as shown in <u>Figure 35</u>: <u>Java Application – Scan</u>.





Figure 35: Java Application – Scan

3.3.2 Database Scan

1. To start the assessment of the database, click **Database** thumbnail and then click **Start Assessment** as shown in <u>Figure 38: Database – Scan</u>.

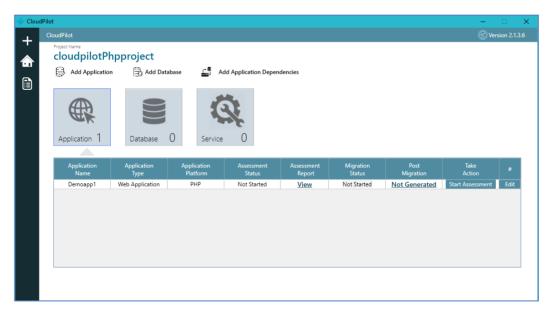


Figure 38: Database – Scan

2. Provide appropriate details based on the survey questions about infrastructure of your database and click on **Start Scan**.



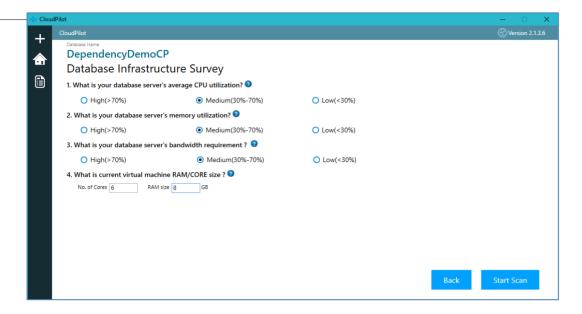


Figure 38 A: Database Infrastructure Survey – Questionnaire

3.3.3 Application Dependencies Scan

1. To start the assessment of the services, click **Services** thumbnail and then click **Start Assessment** as shown in <u>Figure 39</u>: <u>Services – Scan</u>.

NOTE: To scan for application dependencies there must be at least one application details added.

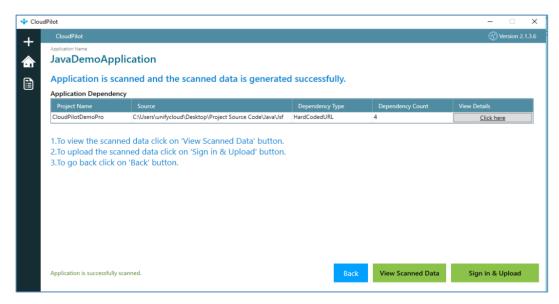


Figure 39: Services – Scan

Once the details for application, database and application dependencies are complete, the "scanning progress bar" appears as shown in Figure 40: Scanning Progress Bar Window.



NOTE: If you want to pause the current scanning, click **Pause** but it is advised to continue the scanning.

NOTE: If you want to stop the scanning at any time, click **Stop Scan** which will redirect you to Figure 32: Thumbnails.

WARNING: If you stop scan during the scanning partial report will be generated, so it is advised to continue the scanning.

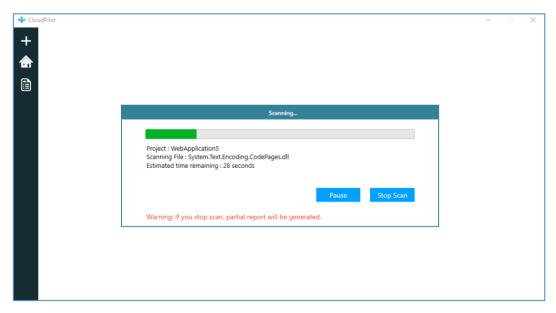


Figure 40: Scanning Progress Bar Window

Once the scanning is completed, you will get a window to **View Scanned Data** or **Sign in & Upload** on CloudPilot [®] tool as shown in Figure 41: Dependency Details.



3.4 Upload Scanned Data

3.4.1 Assessment Scan Data List

Once the scanning of application, database and application dependencies are completed. You will be redirected to the Dependency Details window as shown in <u>Figure 41: Dependency Details</u>.

IMPORTANT:

- 1. For more information on dependencies, click on **Click here** button as shown in <u>Figure 41: Dependency Details.</u>
- 2. To add new dependencies, click **Add New Dependency** button which will redirect you to screen as shown in <u>Figure 28: Add Application Dependencies</u>.
- **3.** To upload the scanned application data directly, click **Sign In & Upload** button as shown in Figure 43: Sign in & Upload Scanned Data.
- **4.** At any time during the scanning if you need to make any changes in your previous windows, click **Back.**



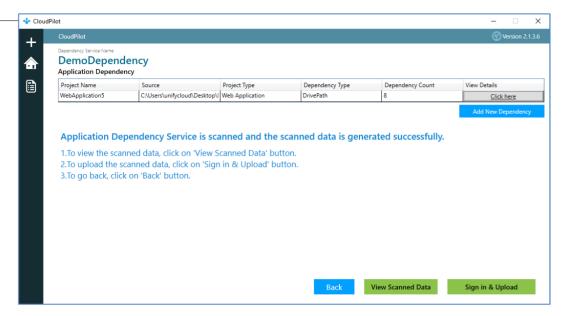


Figure 41: Dependency Details

1. Click **View Scanned Data** to view the multiple assessment file data list as shown in

Figure 42: Assessment Files Data List.

2. To view multiple files, select multiple **Assessment files** check box and click **View All files** as shown in <u>Figure 42</u>: <u>Assessment Files Data List</u>.

NOTE: You can click either of the following function buttons with the list of assessment scanned files:

Open button: Directly open the scanned data.

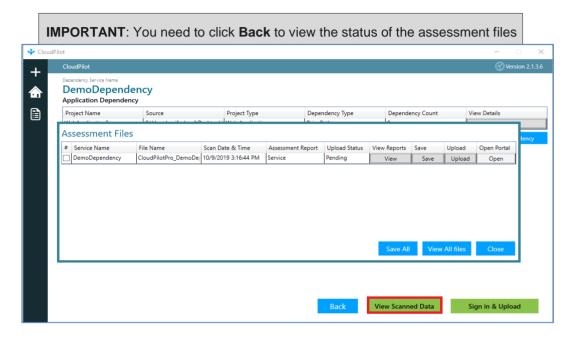
Save button: Save the scanned data to the existing location as per the user.

Upload button: Upload the scanned data on the CloudPilot® portal. **View button:** View the assessment report on the CloudPilot® portal.



Figure 42: Assessment Files Data List

3. Click **Close** to close the assessment file dialog box.



3.4.2 Upload Assessment Scanned Data

1. To upload the scanned application data, click **Sign in & Upload** as shown in Figure 43: Sign in & Upload Scanned Data.

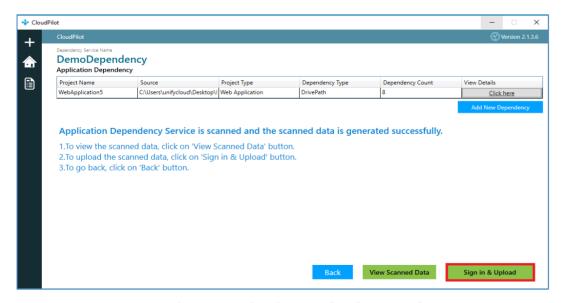


Figure 43: Sign in & Upload Scanned Data

A window will display login details to be entered to access the CloudPilot Migration Tool as shown in <u>Figure 44: Login Details - CloudPilot Migration Tool</u>.



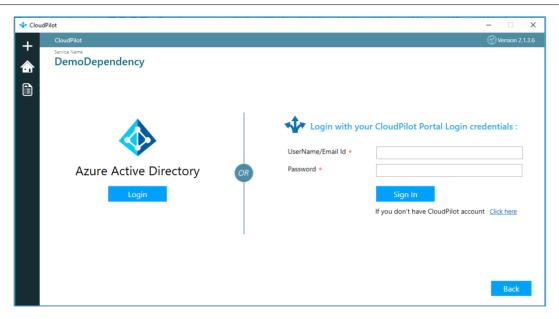


Figure 44: Login Details - CloudPilot Migration Tool

You will be redirected to the CloudPilot[®] portal where you need to again enter the *login credentials* to access the CloudPilot[®] portal for uploading the application data as shown in <u>Figure 45: Login Details - CloudPilot Portal</u>.

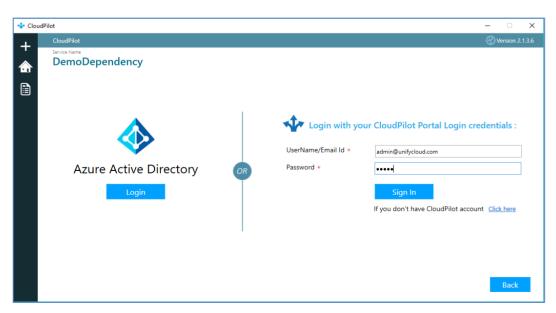


Figure 45: Login Details - CloudPilot Portal



After the application data is uploaded, a dialog box will appear with a message "Successfully uploaded." "Application's Scanned Data is successfully uploaded."

2. Click **OK** as shown in Figure 46: Application Data – Scanned.

IMPORTANT: You need to click **Back** to view the status of the assessment files uploaded.

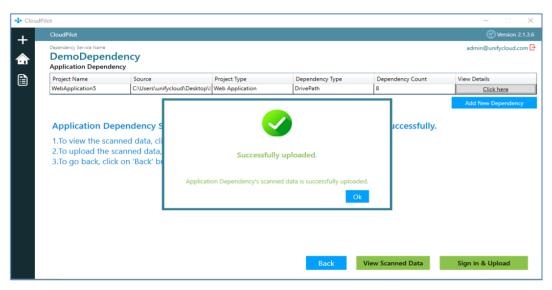


Figure 46: Application Data -

Scanned

3.4.3 Analyze Data Report

There are two ways to analyze the scanned data results:

1. To analyze the scanned results, click **View** button on the assessment file dialog box as shown in <u>Figure 47: Application – View Portal Button</u>.



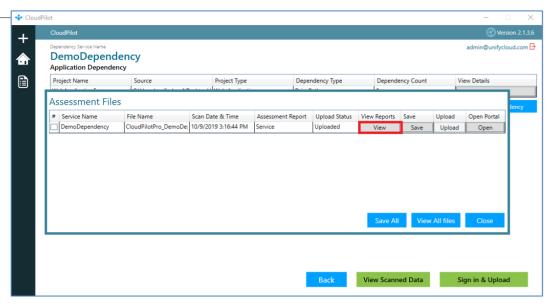


Figure 47: Application – View Portal Button

You will be navigated to the CloudPilot Portal as shown in <u>Figure 49</u>: <u>Work or School Account – Assessment Reports.</u>

OR

2. To analyze the scanned results, click on **Click here to view the report(s) on CloudPilot portal** button on the CloudPilot Tool window as shown in <u>Figure 48</u>: Application – View CloudPilot Portal Link.

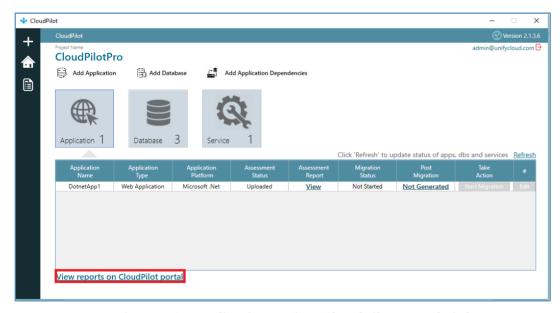


Figure 48: Application – View CloudPilot Portal Link

IMPORTANT: You need to click **Back** to view the status of the assessment files uploaded and to view the CloudPilot reports on CloudPilot portal.



You will be navigated to the CloudPilot Portal as shown in <u>Figure 49: Work or School Account – Assessment</u> Reports.

3.5 Analysis of Scanned Data

After uploading the scanned data, you will be redirected to **CloudPilot**® portal to analyze the application, database and application dependencies scanned reports.

1. Click **Work or School Account or Sign in with CloudPilot ID** button and enter your credentials to access CloudPilot dashboard as shown in <u>Figure 49: SignIn with CloudPilot ID – Assessment Reports.</u>

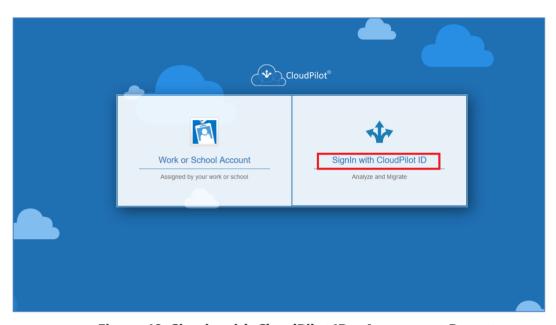


Figure 49: Sign in with CloudPilot ID - Assessment Reports



of the application, database and application dependencies assessment as shown in Figure 50: CloudPilot® - Dashboard.

NOTE: You need to implement all the recommendations to remediate your application, database and application dependencies.



Figure 50: CloudPilot[®] - Dashboard

2. Click **Analysis** button as shown in Figure 51: Analysis Dashboard.

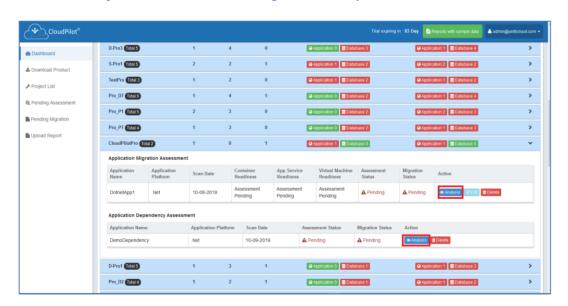


Figure 51: Analysis Dashboard



A list of the questionnaire related to your application appears.

3. Select the specific radio button and click **Next** as shown in <u>Figure 52: List of</u> Questionnaire.

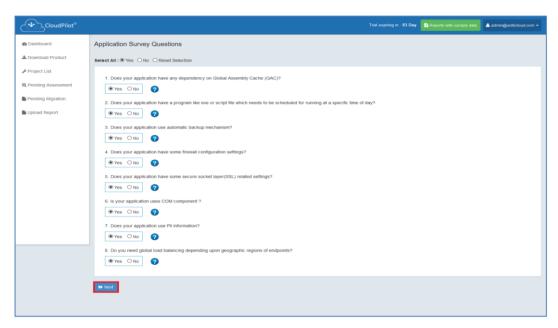


Figure 52: List of Questionnaire

A window appears with Azure Compliance Certificates.

- 4. Select the Azure Compliance Certificate check box.
- 5. Click **Show Report** to generate the recommendation report based on your application scanned as shown in <u>Figure 53</u>: Azure Compliance Certificate.

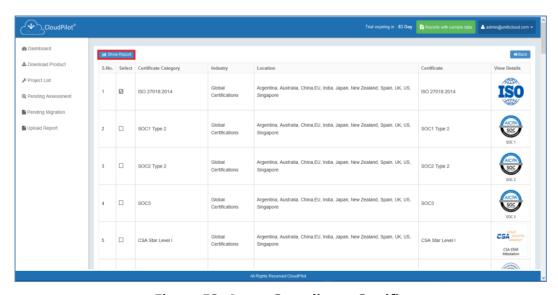


Figure 53: Azure Compliance Certificate



3.5.1 Assessment Report

Microsoft. Net Technology

Application Name: MyApp26Jan, the report appears as shown in <u>Figure 54:</u> <u>CloudPilot® - Overview Report</u>.

Recommendation report contains recommendation setting related to source code based on the scanning as well as recommendation setting for configuration, security, network, and database based on the answers provided by the user/developer.

Overview Report

Refer to Figure 54: CloudPilot® - Overview Report: This is the overall summary received after the application and database are scanned. It shows the number of files/projects scanned, how many data points were found in the application, the reason for the change, the percentage of changes that are mandatory, optional, and the percentage of files, which are ready to migrate to Azure and file details.

NOTE: Identity readiness recommendation depends on the application and database platform.

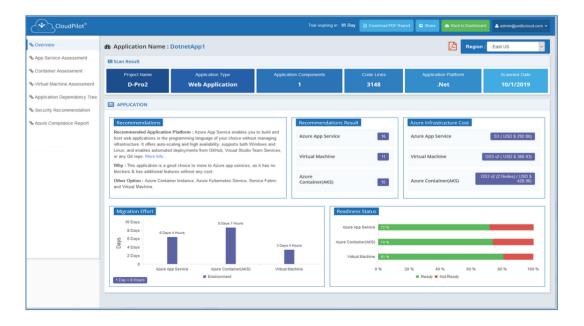


Figure 54: $CloudPilot^{\$}$ - Overview Report

Application Recommendation

- 1. Container Assessment
- 2. App Service Assessment



3. Virtual Machine Assessment

Database Recommendation

- 1. Database Assessment
 - a. Azure SQL Readiness
 - b. SQL on Virtual Machine Readiness
 - c. SQL Managed Instance Readiness

Security Recommendation

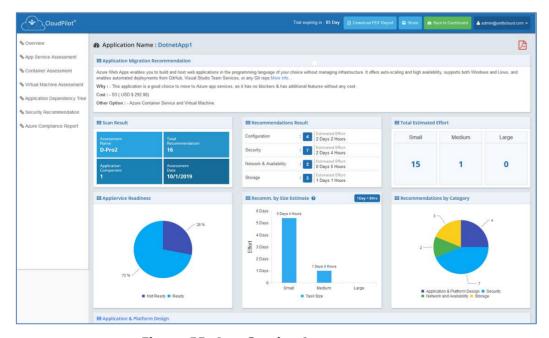
- 1. Application Security Readiness
- 2. Database Security Readiness

Application Assessment Report

This report shows the list of recommendations for all the application script scanned.

App Service Assessment

Refer to <u>Figure 55: App Service Assessment</u>: The recommendation report for app service readiness contains recommendation setting related to source code based on the scanning as well as recommendation setting for configuration, security, network, and storage based on the answers provided by the user/developer.





Container Assessment

Refer to <u>Figure 56: Container Assessment</u>: The recommendation report for container readiness contains recommendation setting related to source code based on the scanning as well as recommendation setting for configuration, security, network, and storage based on the answers provided by the user/developer.



Figure 56: Container Assessment

Virtual Machine Assessment

Refer to <u>Figure 57: Virtual Machine Assessment:</u> The recommendation report for virtual machine readiness contains recommendation setting related to source code based on the scanning as well as recommendation setting for configuration, security, network, and storage based on the answers provided by the user/developer.



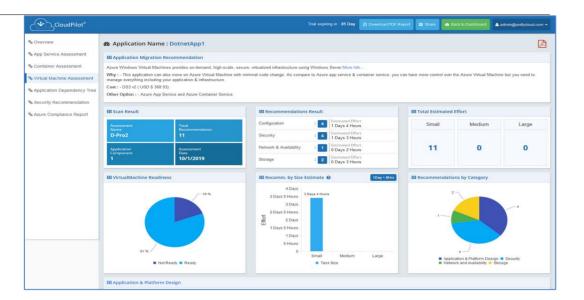


Figure 57: Virtual Machine Assessment

Application Dependency Tree

Refer to <u>Figure 58: Project Dependency Tree</u>: This report shows the dependency of the application component.

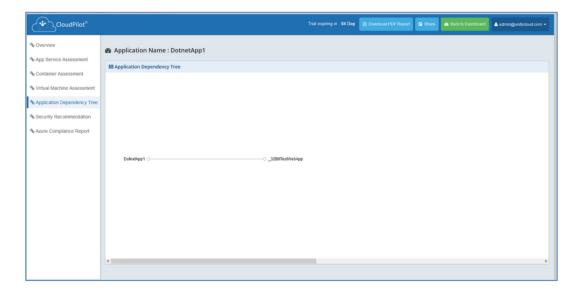


Figure 58: Project Dependency Tree

Security Assessment Report

Refer to <u>Figure 59</u>: <u>Security Recommendation</u>: This report shows the list of security-related recommendations for application and database security readiness.



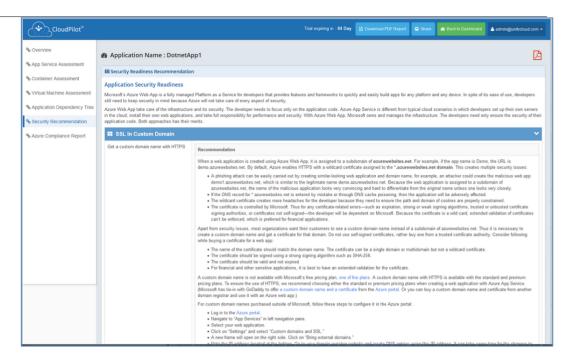


Figure 59: Security Recommendation

Azure Compliance Report

Refer to <u>Figure 60: Azure Compliance Report</u>: This report shows the compliance status of the services.

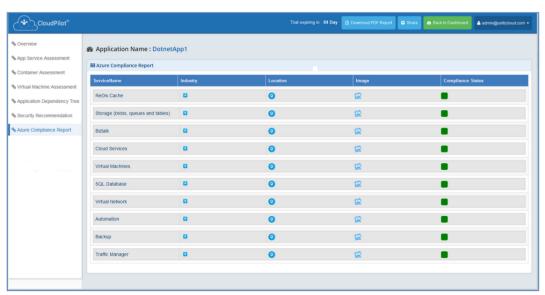


Figure 60: Azure Compliance Report

Java Application Assessment Report

Recommendation report contains recommendation setting related to source code based on the scanning as well as recommendation setting for configuration, security, network, and database based on the answers provided by the user/developer.



Overview Report

Refer to Figure 61: CloudPilot® - Overview Report: This is the overall summary received after the Java application and database are scanned. It shows the number of files/projects scanned, how many data points were found in the Java application, the reason for the change, the percentage of changes that are mandatory, optional, and the percentage of files, which are ready to migrate to Azure and file details.

NOTE: Identity readiness recommendation depends on the application and database platform.



Figure 61: CloudPilot® - Overview Report

Java Application Recommendation

- 1. Container Assessment
- 2. App Service Assessment
- 3. Virtual Machine Assessment

Database Recommendation

- 1. Database Assessment
 - a. Azure SQL Readiness
 - b. SQL on Virtual Machine Readiness
 - c. SQL Managed Instance

Security Recommendation



- 1. Application Security Readiness
- 2. Database Security Readiness

Application Assessment Report

This report shows the list of recommendations for all the Java application script scanned.

App Service Assessment

Refer to <u>Figure 62: App Service Assessment</u>: The recommendation report for Azure app service readiness contains recommendation setting related to source code based on the scanning as well as recommendation setting for configuration, security, network, and storage based on the answers provided by the user/developer.

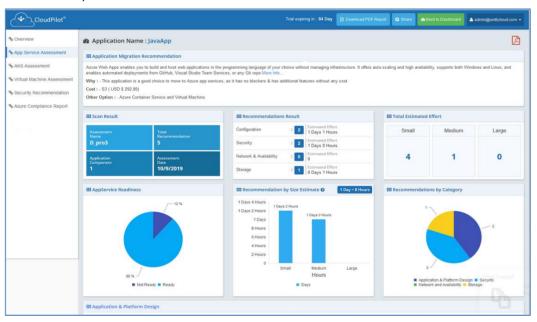


Figure 62: App Service Assessment

Container Assessment

Refer to <u>Figure 63: Container Assessment</u>: The recommendation report for container readiness contains recommendation setting related to source code based on the scanning as well as recommendation setting for configuration, security, network, and storage based on the answers provided by the user/developer.



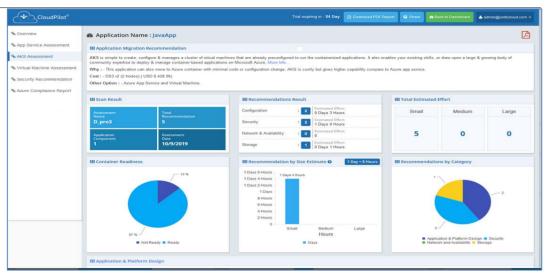


Figure 63: Container Assessment

Virtual Machine Assessment

Refer to <u>Figure 64</u>: <u>Virtual Machine Assessment</u>: The recommendation report for virtual machine readiness contains recommendation setting related to source code based on the scanning as well as recommendation setting for configuration, security, network, and storage based on the answers provided by the user/develop

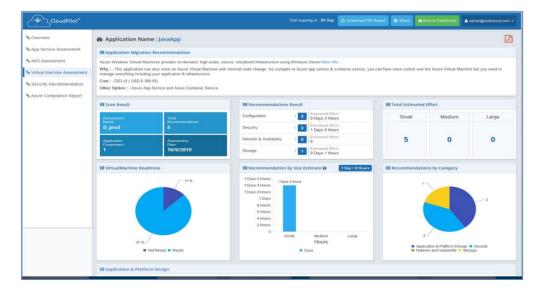


Figure 64: Virtual Machine Assessment



Refer to <u>Figure 65: Security Recommendation</u>: This report shows the list of security-related recommendations for Java application and database security readiness.

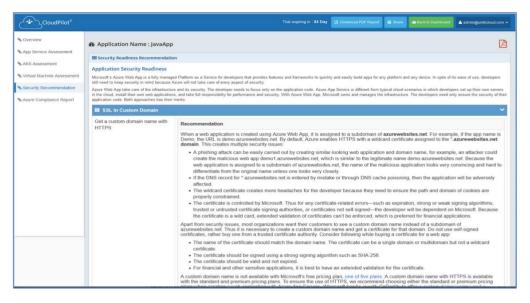


Figure 65: Security Recommendation

NOTE:

- 1. You can analyze the reports and select application questions as described in <u>Section 3.4.1: Assessment Report</u>.
- 2. These reports will share the information for those application, database and application dependencies files which are applicable to migrate under cloud readiness recommendations.

MS SQL Database Assessment Report

In first, a list of the questionnaire related to your application appears.

1. Select the specific radio button and click Next as shown in below List of Ouestionnaire.



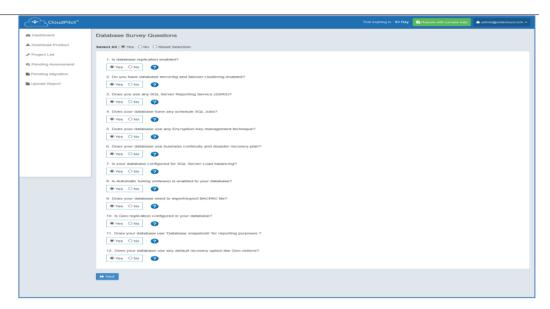


Figure 66 A: List of Questionnaire

Overview Report

This is the overall summary received after the application and database are scanned. It shows the number of files/projects scanned, how many data points were found in the application, the reason for the change, the percentage of changes that are mandatory, optional, and the percentage of files, which are ready to migrate to Azure and file details



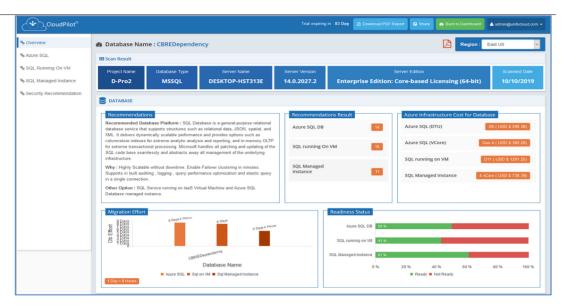


Figure 66 B: Overview Report

Azure SQL

The recommendation report for database SQL Azure contains recommendation setting for impacted objects, total efforts, and total recommendations.



Figure 66 C: Security Recommendation

SQL Running on VM (Virtual Machine)

The recommendation report for database SQL Running on VM Azure contains recommendation setting for impacted objects, total efforts, and total recommendations also total estimated effort.



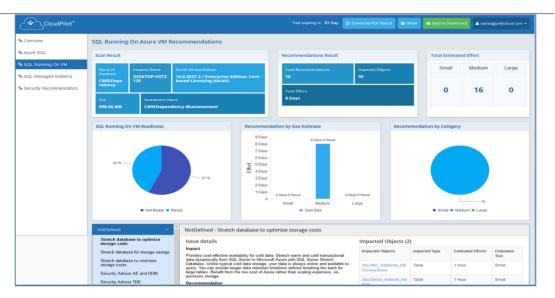


Figure 66 D: Security Recommendation

SQL Managed Instance

The recommendation report for database SQL Managed Instance that contains recommendation setting for impacted objects, total efforts, and total recommendations also total estimated effort.

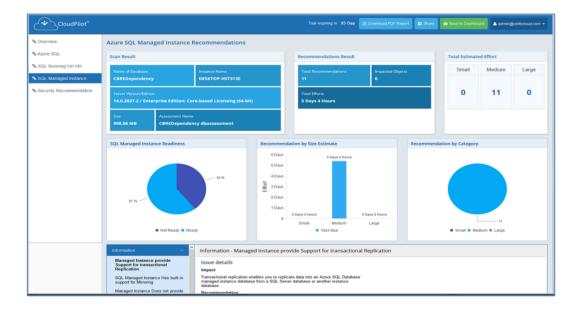


Figure 66 E: Security Recommendation

Security Recommendation

This report shows the list of security-related recommendations for Java application and database security readiness.



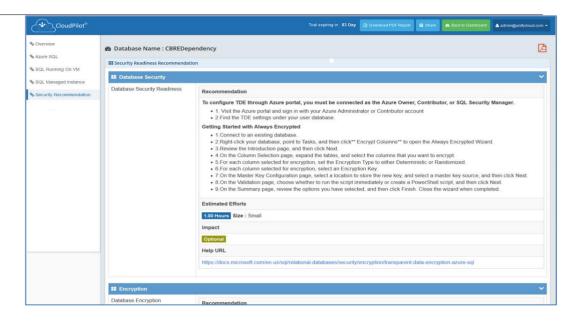


Figure 66 F: Security Recommendation

Oracle Database Assessment Report

In first, a list of the questionnaire related to your application appears. Select the specific radio button and click Next as shown in below List of Questionnaire.

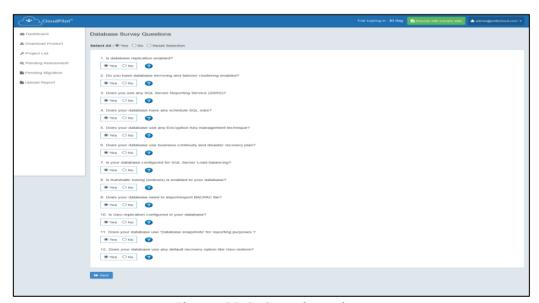


Figure 66 G: Questionnaire



Overview Report

This is the overall summary received after the application and database are scanned. It shows the number of files/projects scanned, how many data points were found in the application, the reason for the change, the percentage of changes that are mandatory, optional, and the percentage of files, which are ready to migrate to Azure and file details



Figure 66 H: Overview Report

PostgreSQL

The recommendation report for database PostgreSQL contains recommendation setting for impacted objects, total efforts, and total recommendations.

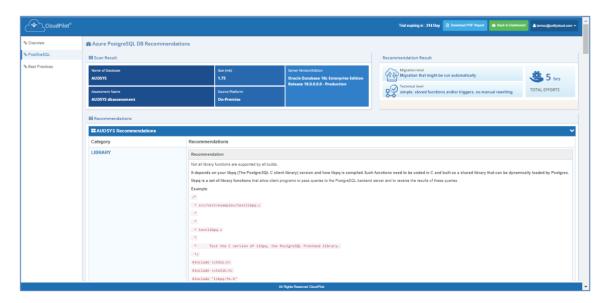


Figure 66 I: PostgreSQL Report



Best Practices

This report shows the list of security-related recommendations for database security readiness.

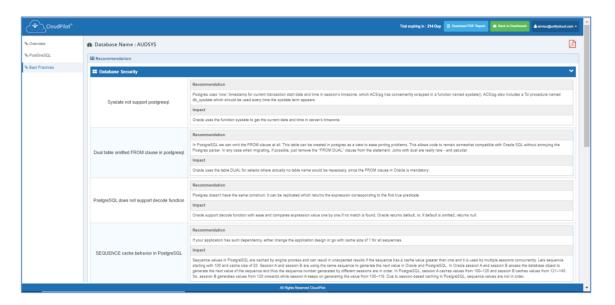


Figure 66 J: Best Practice Security Recommendation



3.6 PowerApps Report and Dashboard

PowerApps Report and Dashboard can be accessed through the CloudPilot portal. Users get access to analytics such as - PowerApps report, number of components, number of code lines, migration complexity, effort hours, and PowerApps Active Score which grades applications on a scale of 0-10.

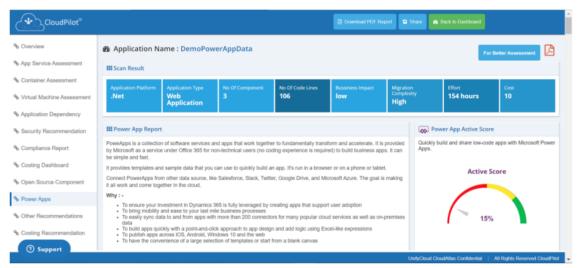


Figure 66 K: PowerApps Report

```
<PowerAppScanList>
<PowerAppScanList>
<PowerAppScanList>
<PowerAppScanList>
<PowerAppScanList>
<PowerAppScanList>
<PowerAppScanList>
<Prior Control Contro
```

Figure 66 L: PowerApps Report (Scanned Datapoints from your Application)



1. PowerApps dashboard has some of the following analytics in overview - cost comparison between PowerApps, PaaS and IaaS, graphical representation of migration complexity, quick wins and code rating based on PowerApps score.



Figure 66 M: PowerApps Dashboard

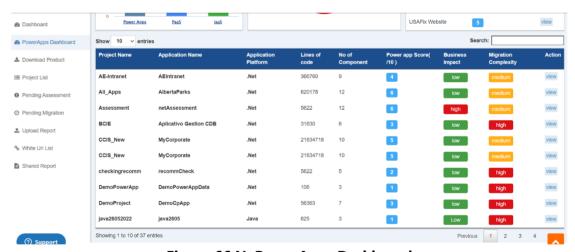


Figure 66 N: PowerApps Dashboard



3.7 Open-Source Component

1. The library used components show recommendations to help resolve security issues. The overview shows details such as number of components, number of securities threats/vulnerabilities and component details.



Figure 66 O: Open-Source Components

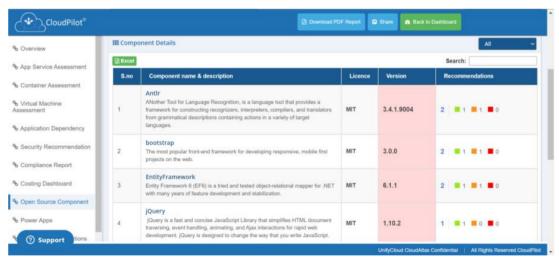


Figure 66 P: Detailed overview of component library



1. On the Dashboard of the CloudPilot portal, click on the "Pending Migration" side-menu, as shown in the figure below.



Figure 66 Q: CloudPilot Dashboard

2. On the Pending Migration list, scroll down to the Java Applications list. Click on the "View" button, as shown in the figure below.

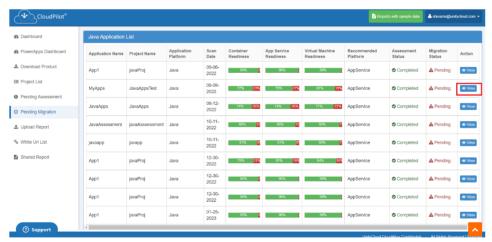


Figure 66 R: Applications Pending Migration List

3. In the JavaApps Overview, you can see details such as, Application recommendations, Migration effort, Readiness status, Recommendations results, Azure Infrastructure cost, Code lines and other Application assessment details.



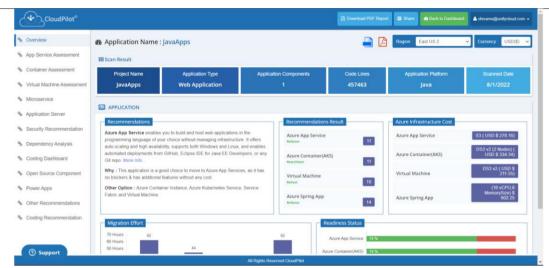


Figure 66 S: Java Apps Assessment Overview

3.8.1 Java Microservice

Java Microservice is a software architecture pattern that structures an application as a collection of small, independent services, each running its own process and communicating with lightweight mechanisms, often an HTTP resource API. The goal of this architecture is to achieve greater scalability, resilience, and deployment flexibility compared to a monolithic architecture.

The Microservice scorecard provides a systematic assessment of various aspects of the microservice architecture, including reliability, scalability, security, maintainability, and overall design, as shown in Figure 5: Java Apps Microservice.

1. Click on the "Microservice" section of the left side-menu to access this feature, as shown in the figure below.



Figure 66 T: Java Apps Microservice



3.8.2 Application Server

1. Under the "Application Server" side-menu, you can access the Java Apps Application Server Assessment details, as shown in the figure below.

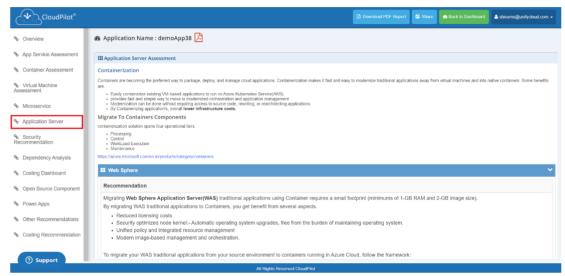


Figure 66 U: Java Apps Application Server

2. The application server section contains a questionnaire. These set of questions are used to assess the suitability and capabilities of a particular application server for a specific use case or project.

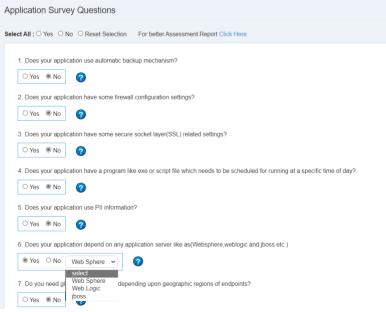


Figure 66 V: Application Survey Questions



3.9 Five R Analysis

The goal of Five R Analysis in a cloud environment is to maximize the benefits of cloud and minimizing costs to improve resource utilization. Under the left side-menu, click on "Five R Analysis" to access this feature.

Rehost: This is the simplest migration strategy, where the application is moved to a new environment without making any changes to the code or architecture.

Refactor: This involves making changes to the code or architecture to optimize it for the new environment, while retaining the existing functionality of the application.

Rebuild: This strategy involves completely rebuilding the application from scratch, taking advantage of new technology and architecture patterns.

Replace: This involves replacing the existing application with a different solution that provides equivalent functionality.

Retire: This strategy involves retiring the application, either because it is no longer needed or because it has been replaced by a different solution.

1. Click on the "Five R Analysis" tab on the left side-menu of the Portfolio Dashboard to access this feature.

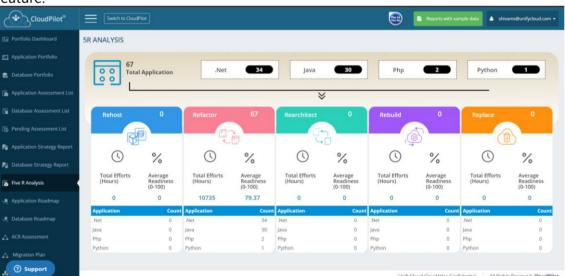


Figure 66 W: Five R's Analysis



4. Cloud migration using CloudPilot®

4.1 Application Migration to Azure

Follow the steps below to migrate your application to Azure using **CloudPilot** [®] tool:

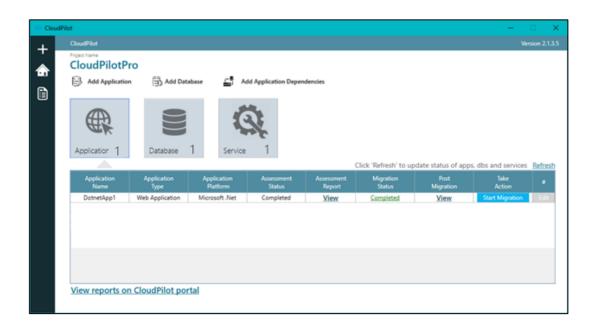
NOTE: At any time during the migration if you need to know about any text boxes or option button just hover over **Help** button?

NOTE: At any time during the migration if you need to make any changes in your previous windows, click **Back** if applicable.

NOTE: Fields marked with * are mandatory and needs to be filled or selected as per choice.

2. Once the assessment report is generated, click **Start Migration** to migrate the application to Azure as shown in <u>Figure 67</u>: <u>Application Migration</u>.

IMPORTANT: You to need to click pupdate the assessment status and to make the **Start Migration** button active.





4.1.1 Migration Option

There are three services of application migration:

- 1. Azure App Service
- 2. Container Services
- 3. Azure Virtual Machine

4.1.1.1 Azure App Service

1. Select the specific radio button for migration option and click **Next** as shown in <u>Figure 68: Migration Option</u>.

NOTE: As per the Assessment report generated earlier, we recommended Azure App Service the best Azure service to migrate your application.

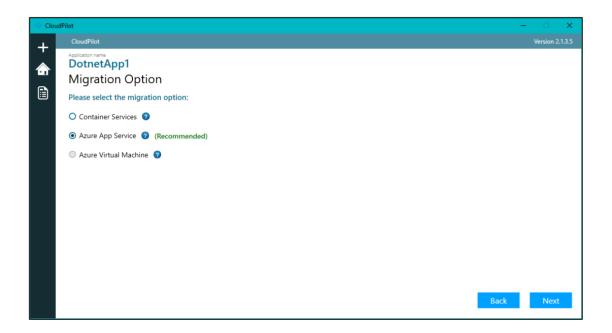


Figure 68: Migration Option – Azure App Service



Azure App Service Migration Option

- 1. Select the specific radio button for Azure App Service Migration Option.
- 2. Click Next.

You will be redirected to the Migration Ready Application Compiled Code Details window, where the project name, application platform and other details need to be confirmed as shown in <u>Figure 69</u>: <u>Migration Ready Application – Compiled Code</u>.

NOTE: Select **Browse** to change Compile Code Location, if required as shown in <u>Figure 71</u>: <u>Migration Ready Application – Compiled Code</u>

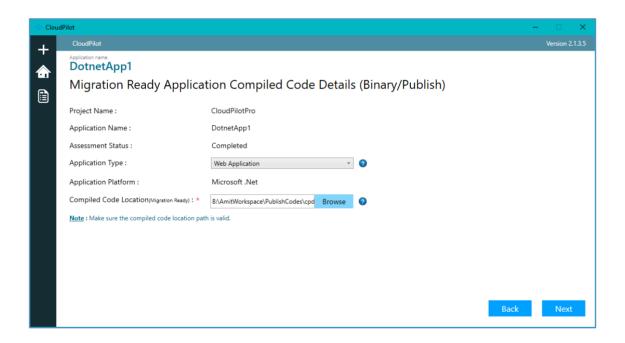


Figure 69: Migration Ready Application – Compiled Code



3. A message box will be prompted and click **Yes** to proceed.

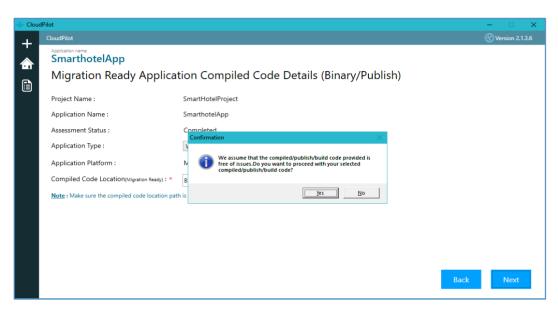


Figure 70: Migration Ready Application – Compiled Code

Login Details with Active Directory

You can sign in with your Active Directory and you will redirect to <u>Figure 71</u>: <u>Azure AD (Active Directory) Login.</u>

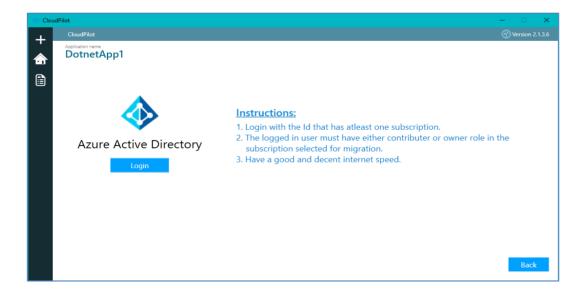


Figure 71: Azure AD Login



Azure Subscription

A window displays "Getting Subscription" as shown in Figure 72: Azure Subscription-In progress

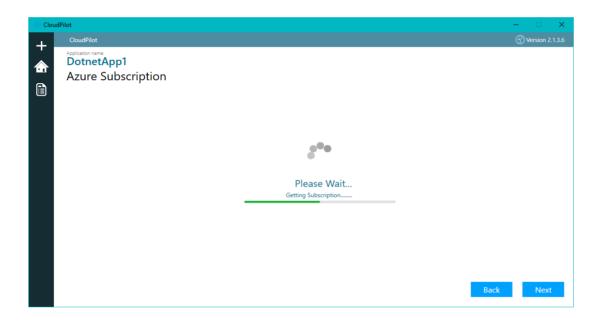


Figure 72: Azure Subscription- In progress

1. Enter your credentials to login to your Microsoft Azure account as shown in <u>Figure 73: Microsoft Azure - Log in Page</u>.

NOTE: If you don't have a Microsoft account then you need to create one.



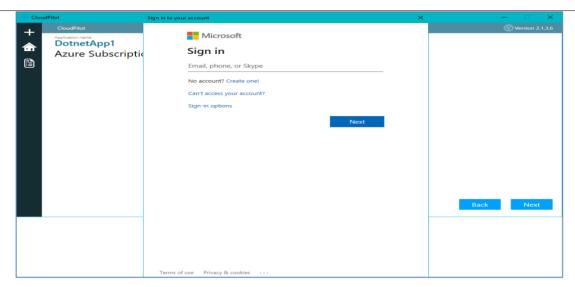


Figure 73: Microsoft Azure - Log in Page

2. Log in with your credentials and click **Sign In** as shown in <u>Figure 74: Microsoft Azure Log In Details</u>.

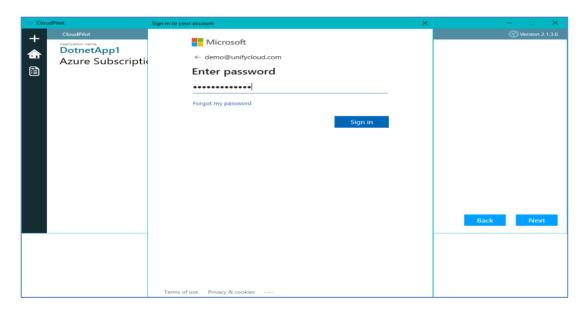


Figure 74: Microsoft Azure Log in Details

3. Select the Azure Subscription as per your account as shown in <u>Figure 75: Azure Subscriptions</u>.

NOTE: If you don't have any subscription try with another account.



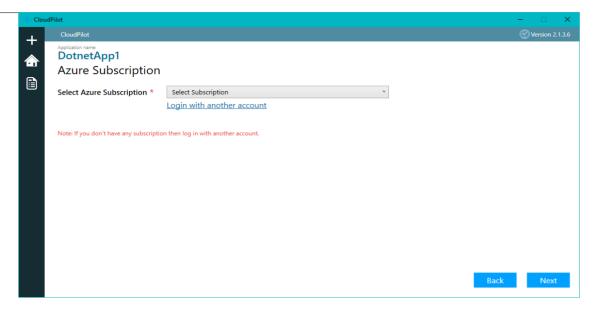


Figure 75: Azure Subscriptions

4. Select the Visual Studio Enterprise - MPN as per the dropdown list as shown in Figure 76: Azure Subscription List.

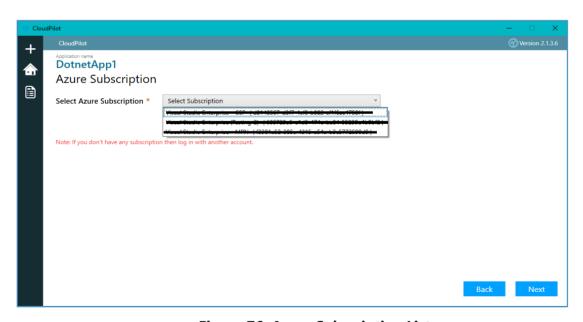


Figure 76: Azure Subscription List

5. Select the Visual Studio Enterprise – MPN and click **Next** as shown in <u>Figure 77:</u> Select Azure Subscription.



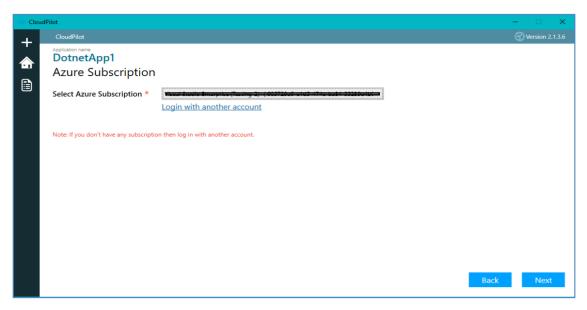


Figure 77: Select Azure Subscription



App Service Deployment

1. Select the Resource Group from the dropdown list as shown in <u>Figure 78:</u> Resource Group List.

NOTE: Resource group are created as per your Azure subscription plans.

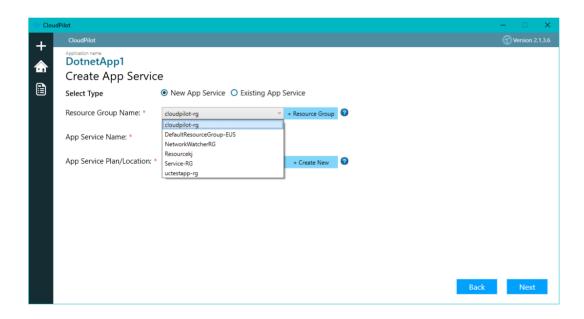
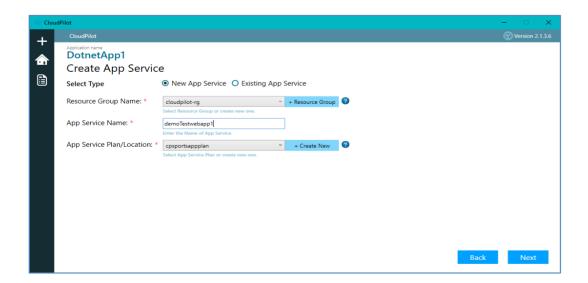


Figure 78: Resource Group List

2. Enter the App Service name in Figure 79 : App Service Name.





3. Select App Service Plan/Location from the dropdown list. If you want to create a new App Service Plan, click on **+ Create New** as shown in Figure 80: App Service Plan.

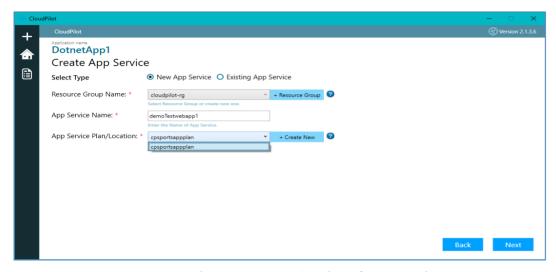


Figure 80: App Service Plan/Location

4. Once complete, click **Next.** A message box will appear asking for the confirmation. Click **Yes a**s shown in Figure 81: Conditional.

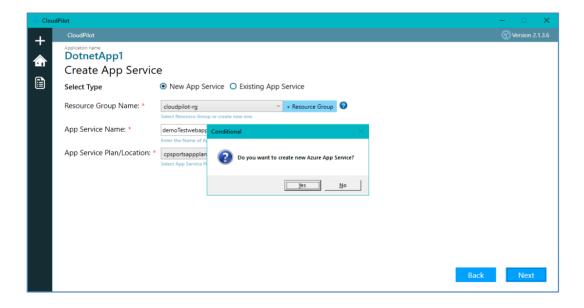


Figure 81: Conditional



"Creation of New Azure App Service" is in progress as shown in <u>Figure 81: New Azure App Service - In Progress</u>.

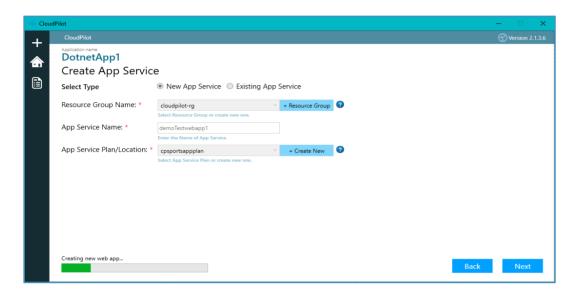


Figure 81: Creating New Web App - In Progress

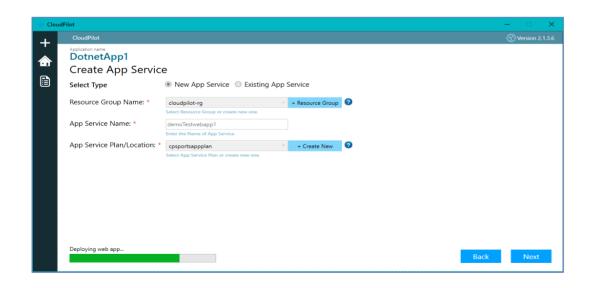


Figure 81 A: Deploying application to New Web App - In

Progress



4.1.1.2 Container Services

1. Select the specific radio button for migration option and click **Next** as shown in <u>Figure 82: Migration Option</u>.

NOTE: As per the Assessment report generated earlier, we recommended container services the best Azure service to migrate your application.



Figure 82: Migration Option – Container Services

Container Service Migration Option

- 1. Select the specific radio button for Container Service Migration Option.
- 2. Select **Azure Container Instances radio** button.



3. Click **Next** as shown in <u>Figure 83: Container Service Migration - Azure Container.</u>

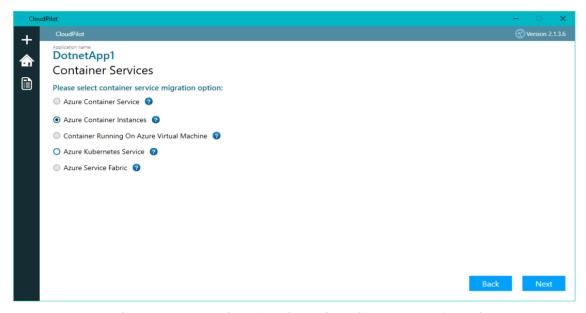


Figure 83: Container Service Migration - Azure Container Instances

Follow the steps after this till selection of subscription list.

Container Registry Options

1. Select the specific radio button for Container Repository Options as shown in <u>Figure 84: Container Registry Options</u>.

NOTE: If you have an existing **Docker hub** account, you can choose Docker hub option.



Azure Container Registry - New Account

1. For New account of Azure Container Registry, select the **new** radio button and click **Next** as shown in <u>Figure 84</u>: <u>Container Registry Options</u>.

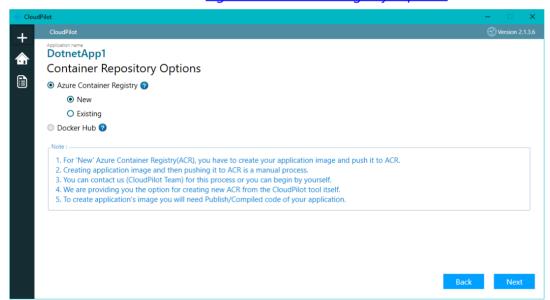


Figure 84: Container Registry Options

- 2. Carefully read the note and then Click Next.
- 3. Select the Resource Group from the dropdown list as shown in <u>Figure 85:</u> Resource Group List.

NOTE: Resource group are created as per your Azure subscription plans.



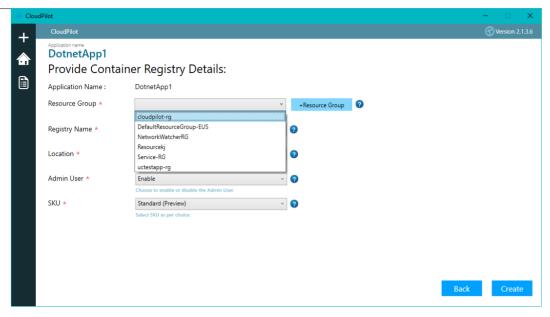


Figure 85: Resource Group List

4. Enter the Registry name and select the Location from the dropdown list as shown in Figure 86: Location List.

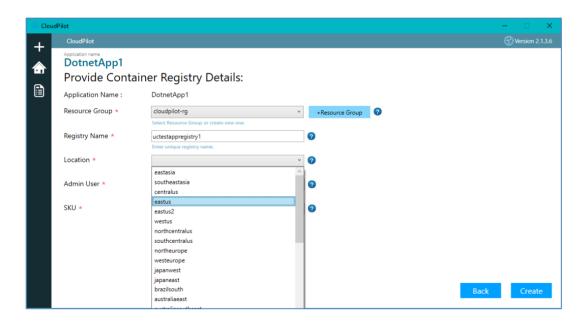


Figure 86: Location List

5. Select enable (**by Default**) to enable the Admin User and select SKU from the dropdown list as shown in <u>Figure 87: Container Registry Details Added</u>.



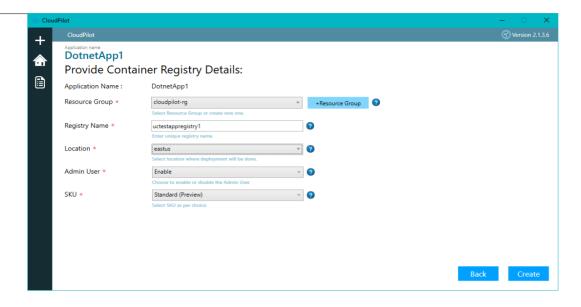


Figure 87: Container Registry Details Added



6. Once complete, click **Create.** Azure Container Registry will be created immediately within 5-10 seconds.

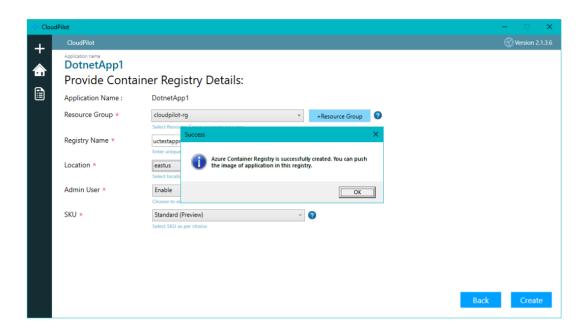
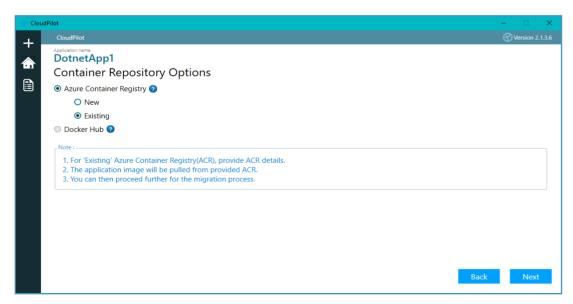


Figure 88: New Azure Container Registry - Created

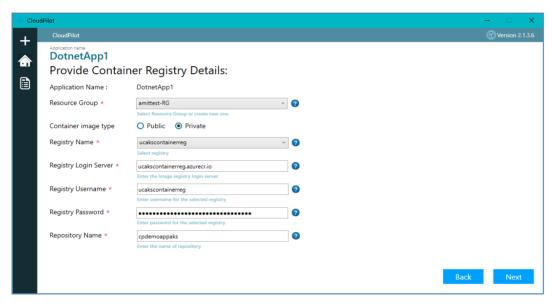
7. After completion of all the steps and pushing the application to new Azure Container Registry (steps described in note in Fig. 79) navigate to the below screen (Click **Back**) and select the **Existing** radio button.



8. Click Next.



- 9. Provide valid details of the Container Registry which you just created.
 - Select Resource Group from the dropdown list.
 - Select Container Image type as Private.
 - Select the registry name from the dropdown (which you just created).
 - Enter the registry login server details, username, and password.
 - Enter the repository name. This application will be deployed to the container.



- 10. Provide valid details for Azure Container
 - Enter the container name.
 - Enter the resource group name. The new resource group will be created with this name.
 - Select the location from the dropdown list. Other details are selected by default.



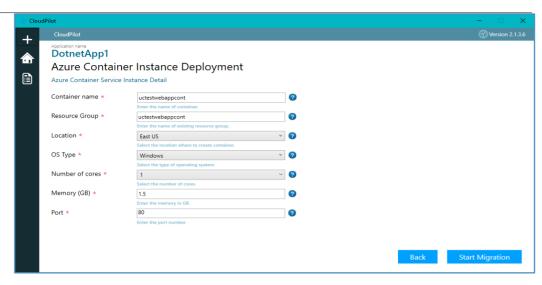


Figure 89: Azure Container Instance – Added

11. Click **Start Migration** and the migration process will start.

The deployment of the application to Azure is in progress as shown in <u>Figure 90: Deployment in Progress</u>.

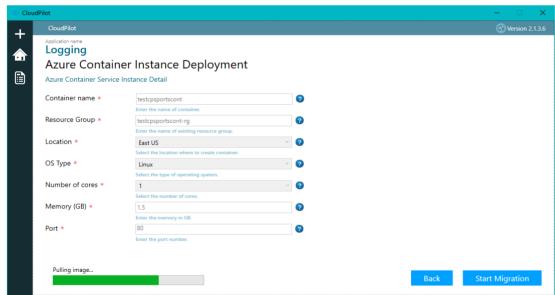


Figure 90: Deployment in Progress

4.2 Application deployed to Azure

Once deployed "Application successfully deployed in Cloud Azure." message appears on the screen as shown in Figure 91: Application Deployed.



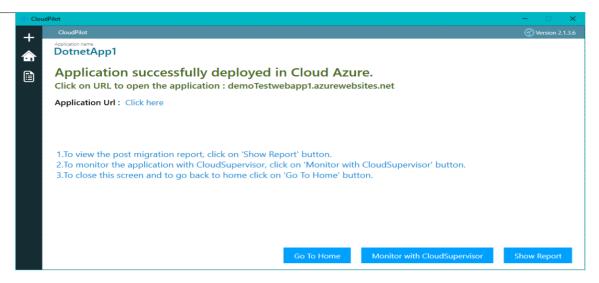


Figure 91: Application Deployed - Azure App Service

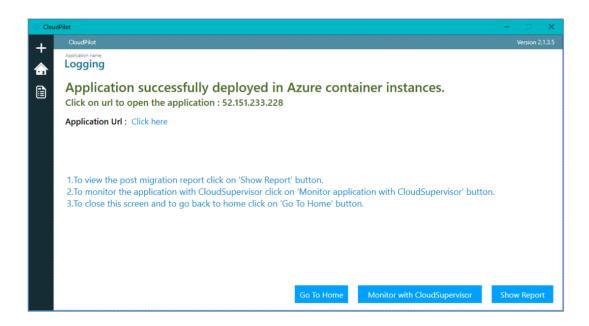


Figure 91 A: Application Deployed - Azure Container Instance

4.3 Post-Migration Report

 Click Show Report to open and know about the migration report of the deployed application on Azure App Service as shown in <u>Figure 97: Post</u> <u>Migration Report</u>.



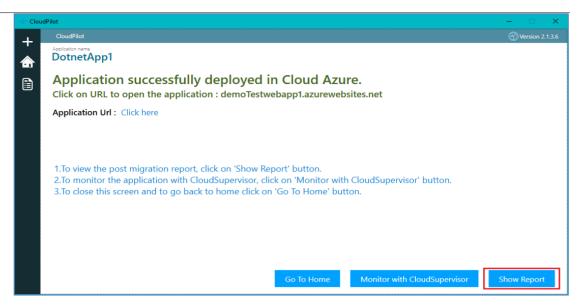


Figure 92: Post Migration Report

You will be redirected to the post application migration report as shown in <u>Figure 93</u>: <u>Application Migration Report</u>. The Post application migration report consists of the application details, deployment details with the total time duration of application deployment and provides additional security recommendations.



Figure 93: Application Migration Report

4.4 Monitor Application using CloudSupervisor



 For detailed reports on migration, click Monitor Application with CloudSupervisor[®] as shown in <u>Figure 94: Monitor Application with</u> <u>CloudSupervisor</u>.

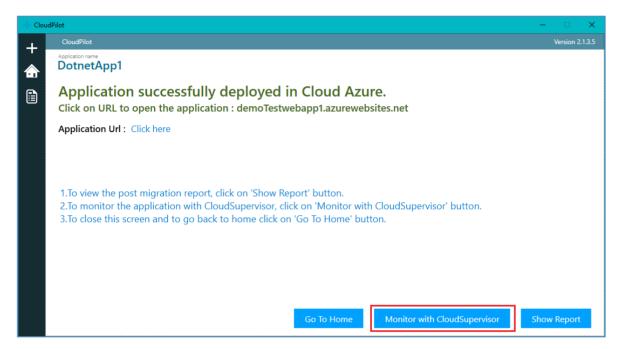


Figure 94: Monitor Application with CloudSupervisor

You will be redirected to the **CloudSupervisor** [®] dashboard as shown in <u>Figure 95:</u> <u>CloudSupervisor</u> • <u>Dashboard.</u>

NOTE: For more details on monitoring of the application, we recommend that you should buy **CloudSupervisor**® tool.

To know more click https://www.cloudatlasinc.com/cloudsupervisor/

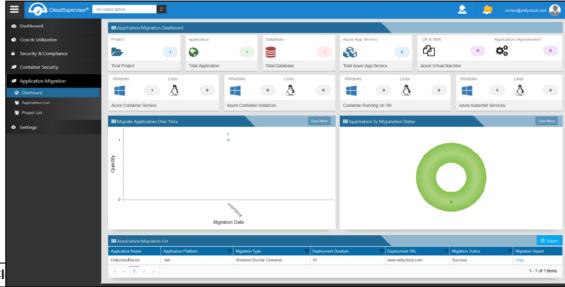




Figure 95: CloudSupervisor® - Dashboard

You will be redirected to the CloudPilot tool window with the migration status **completed** as shown in <u>Figure 96: CloudPilot Tool Window - Migration Completed</u>.

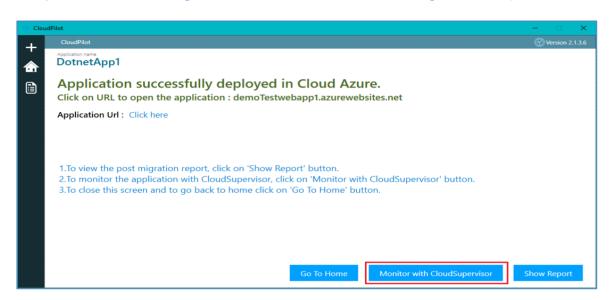


Figure 96: CloudPilot Tool Window - Migration Completed

You can click on 'Completed' to view the migration details.

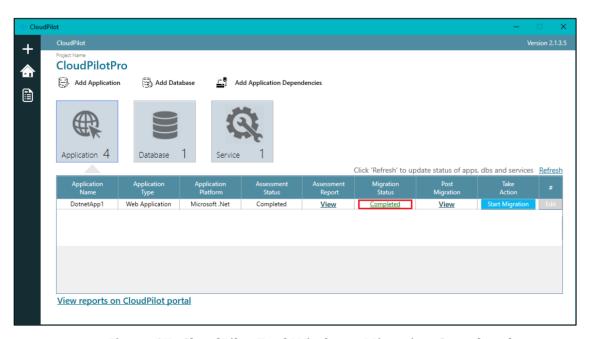


Figure 97: CloudPilot Tool Window - Migration Completed



The following are the details shown. You can click on the Application URL to browse your application.

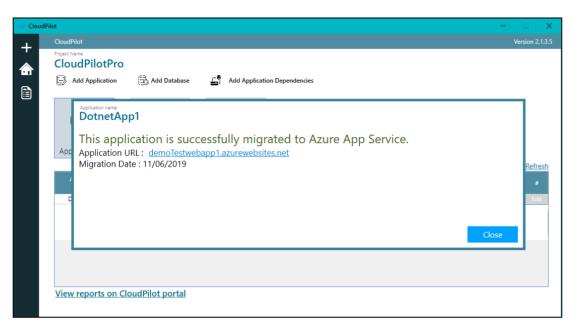


Figure 98: View Migration Details - Migration Completed

4.5 Database Migration

- 1. The process of migration of database is like application migration.
- 2. Click on **the Start Migration** button on the grid for the database you want to migrate to.
- 3. Next select the environment to which you want to migrate your database. Currently, **Azure SQL Database** is supported by CloudPilot Tool. More support for migrating to other types of environments will be coming in upcoming versions in future.
- 4. **Login** with your **Active Directory credentials** that has at least one subscription. The subscription must have **owner** or **contributor** role to perform migration.
- 5. Next you must provide valid details for Azure SQL Database.
- 6. After all required fields are validated, click on **Proceed** to start the migration.
- 7. The migration process will start. It will take some time to create the resources in Azure.
- 8. After the creation of the resources in Azure, you will get the connection string of the Azure SQL database.
- 9. Further migration process requires **Microsoft Database Migration Assistant** (**DMA**) to be installed in the system.
- 10. Microsoft DMA can be launched from the CloudPilot tool itself.
- 11. Provide source server details and select the database for migration in Microsoft DMA.
- 12. Provide target server details and select the database for migration in Microsoft DMA.





- 13. Follow the steps as the flow goes on in Microsoft DMA.
- 14. Within some time, your database will be successfully migrated to Azure.



5. Create Multiple Application Assessment Project

 Select the radio button as Multiple Application Assessment as shown in Figure 1: New Project.

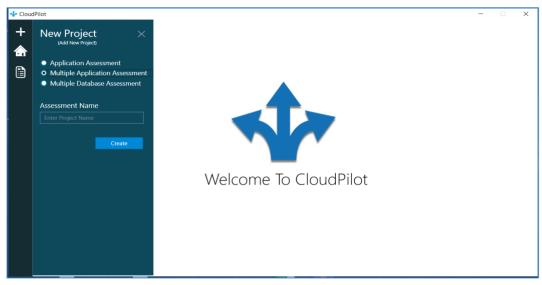


Figure 1: New Project

2. Enter the project name in the text box and click Create as shown in <u>Figure 2:</u>
<u>Create Project</u>

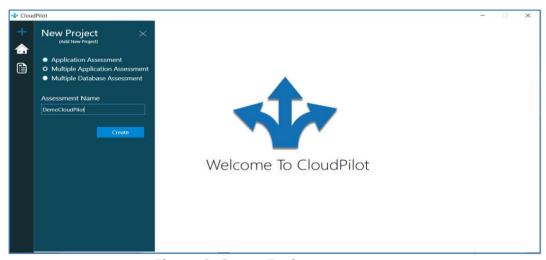


Figure 2: Create Project

- 3. Enter the application name.
- 4. Select Application Type as Web application.

NOTE: You need to follow the same procedure for Windows services or Console application types.



5. Select Platform as Microsoft. Net as shown in <u>Figure 3 : Add Application</u> Details – Microsoft.Net.

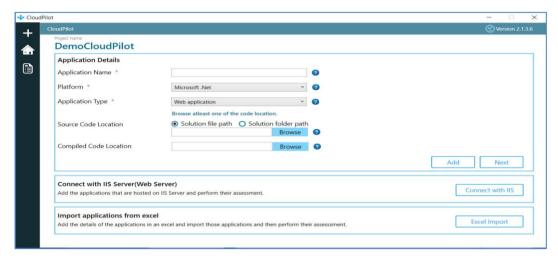


Figure 3: Add Application Details – Microsoft. Net

Under the Source Code Location section, click **Browse** and provide the path of your source application.

If you have the solution file, select the **Solution file path** radio button otherwise, you can directly select the project folder path by selecting the **Solution folder path** radio button as shown in <u>Figure 4</u>: <u>Application - Source</u> Code Location.

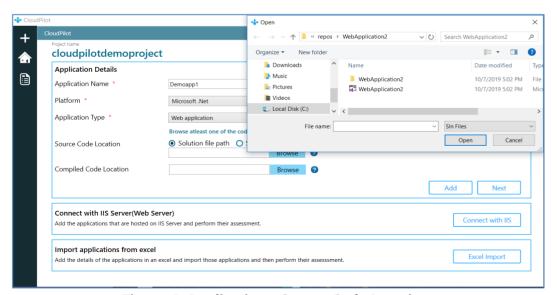


Figure 4: Application - Source Code Location

NOTE: Browse at least one of the Code Location at one time.



6. Provide details of Compiled Code Location, click **Browse** and provide the path of your compiled code location as shown in <u>Figure 5: Browse – Compiled Code location</u>.

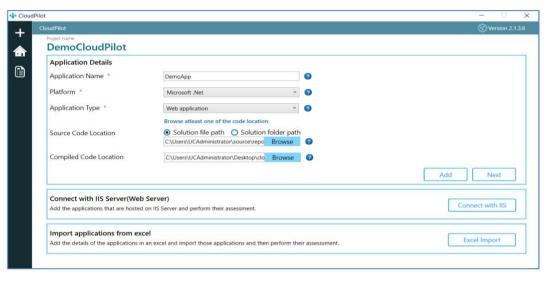


Figure 5: Browse - Compiled Code location

- 7. Once the application details are complete, click **Add.**
- 8. You will get a dialog box with a message "Application added successfully," click **OK** as shown in Figure 6: Application Added Successfully.

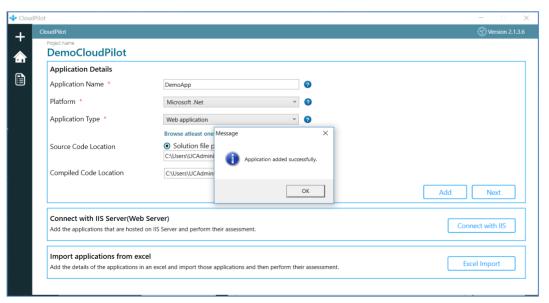


Figure 6: Application Added Successfully



To add another application for assessment, follow the steps written below -

- 1. Enter the application name.
- 2. Select Application Type as a Web application.
- 3. Under the Source Code Location section, click **Browse** and provide the path of your source application
- 4. Provide details of Compiled Code Location, click **Browse** and provide the path of your compiled code location as shown in <u>Figure 7: Browse Compiled Code location</u>

Other methods to add Applications-

- A. Connect with IIS
- B. Excel Import

A. Connect with IIS

a. The applications that are hosted on IIS Server can be directly added to CloudPilot tool for assessment. Click on **Connect with IIS** as shown in <u>Figure 6 A: Connect with IIS</u>

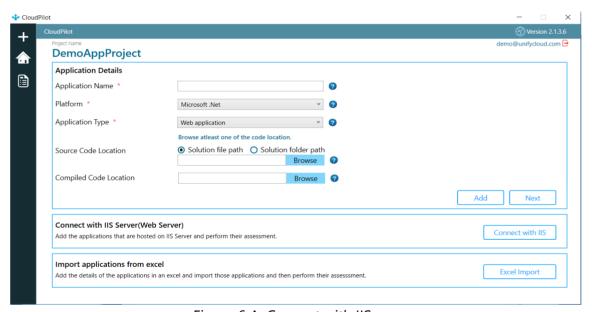


Figure 6 A: Connect with IIS



b. The application hosted on IIS Server will be shown in the grid as shown in <u>Figure 6 B:</u>
<u>Application list hosted on IIS Server</u>

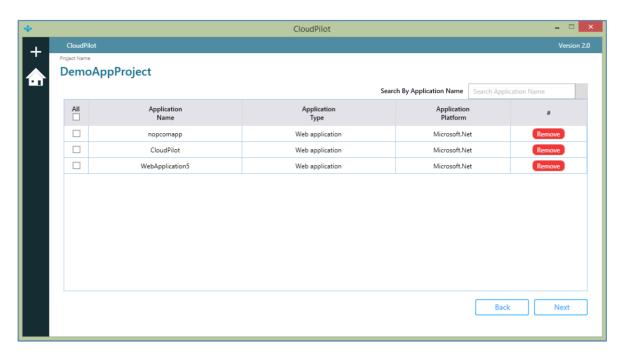


Figure 6 B: Application list hosted on IIS Server

c. Select the specific check box for application you want to scan as shown in <u>Figure 6 C:</u>
<u>Application Details-hosted on IIS Server</u>

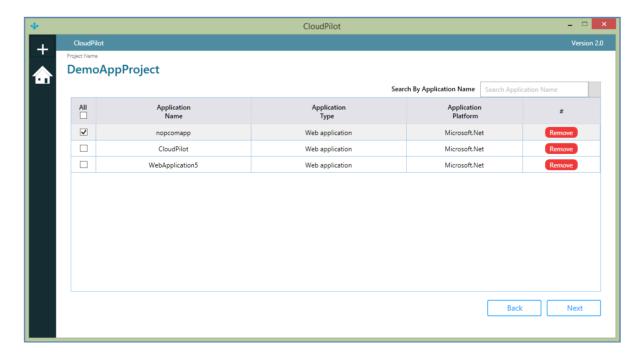


Figure 6 C: Application Details-hosted on IIS Server



d. Click **Next** to proceed further for scanning.

B. Excel Import

a. Click on **Download sample excel** as shown in Figure 6 D: Download Sample Excel

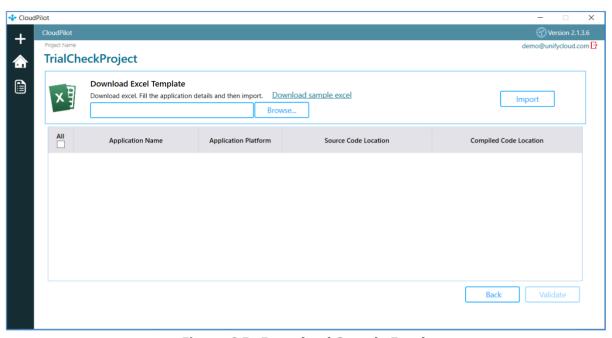


Figure 6 D: Download Sample Excel

- b. Fill in the excel by providing the details of your application like application name, application platform, source code location/compiled code location, etc.
- c. Browse the excel in the tool by clicking on **Browse** button as shown in <u>Figure 6 E: Browse</u> <u>Excel Path</u>

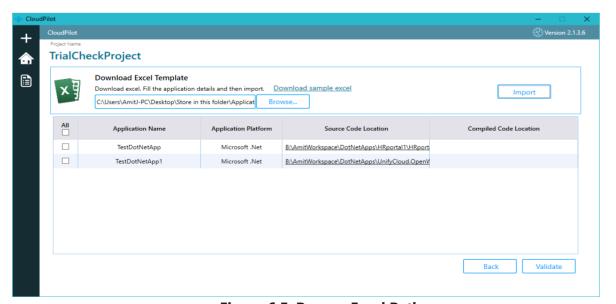


Figure 6 E: Browse Excel Path

d. Click on **the Import** button to import details from excel to tool.



- e. The list of applications will be displayed on the grid.
- f. Click Validate to verify the path of the applications. If the paths are correct, then the color of the application paths changes to green or red as shown in Figure 6 F: Application
 Details-Validate Path
- g. Click Next.
- h. Select the specific check box for the Application you want to scan as shown in <u>Figure 6 G:</u>
 <u>Application Details</u>

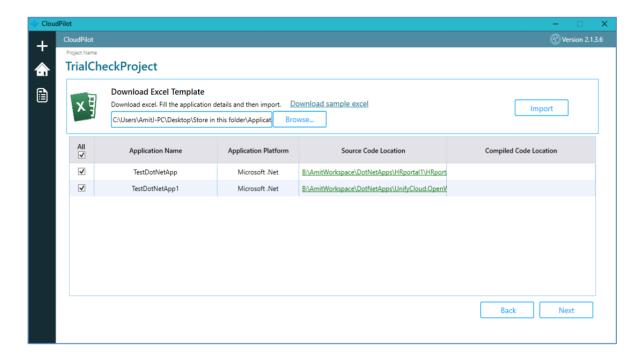
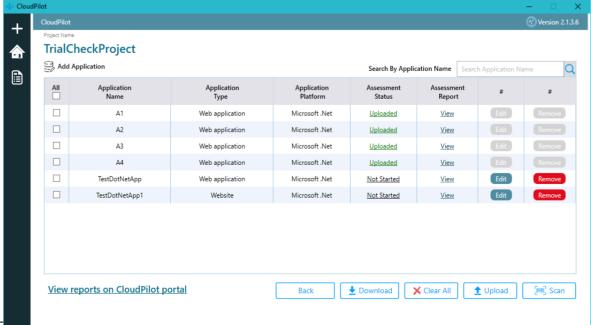


Figure 6 F: Application Details-Validate Path



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Figure 6 G: Application Details

 Select the specific check box for the application you want to scan and click Scan to perform the scanning of selected Applications as shown in <u>Figure 7: Application</u> <u>Details</u>

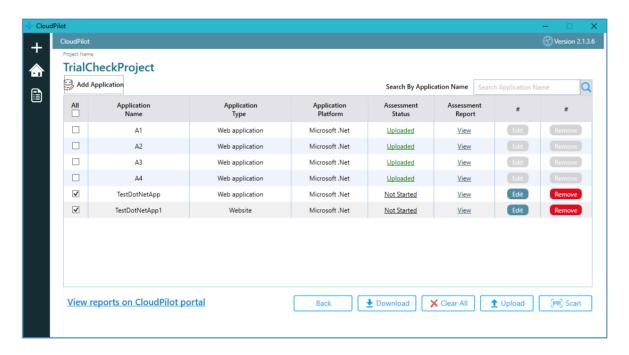


Figure 7: Application Details

10. The scanning of selected Applications is in process as shown in Figure 7 A: Scanning

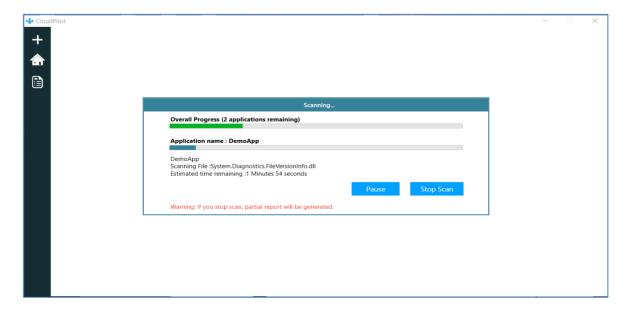


Figure 7 A: Scanning



11. Applications are scanned, and the scanned data is generated successfully as shown in Figure 8: Applications Scanned Successfully

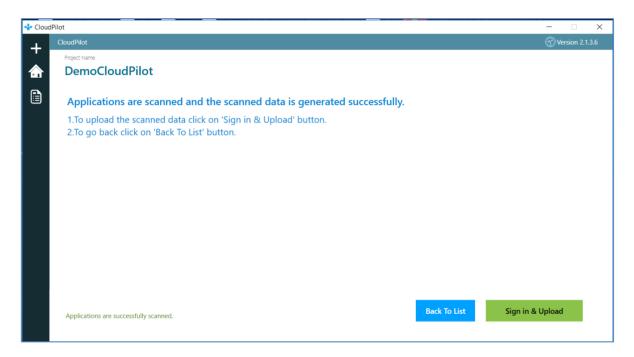


Figure 8: Application Scanned Successfully

12. Click on Sign in & Upload button and Login Window appear on the screen as in Figure 9: Login.



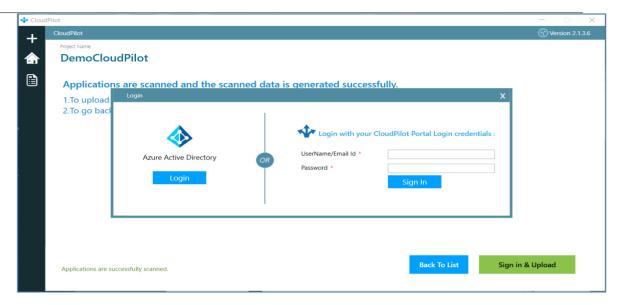


Figure 9: Login

13. Enter your credentials and click **Next** to login as shown in <u>Figure 10: Login-Enter Credentials</u>.

NOTE: If you do not have a Microsoft account then you need to create one, click **Create one** button as shown in Figure 10: Login -Enter Credentials.

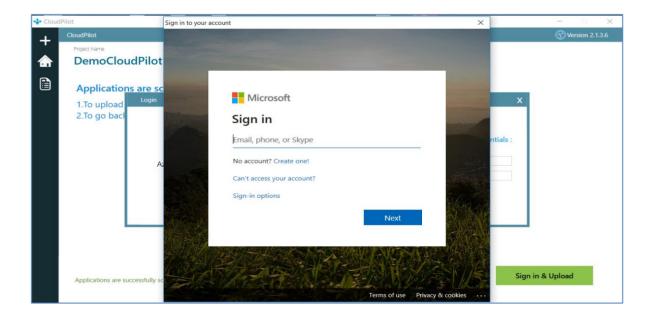


Figure 10: Login – Enter Credentials



14. The files are being uploaded to CloudPilot Portal as shown in: Figure 11: Uploading report

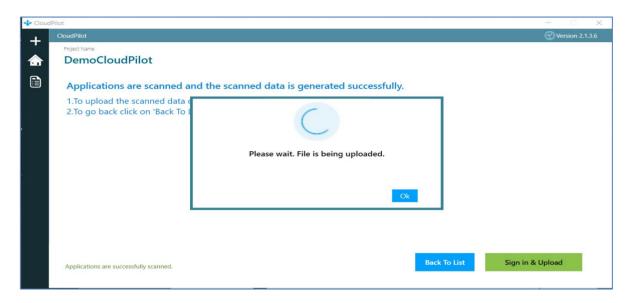


Figure 11: Uploading report

15. Applications reports are successfully uploaded as shown in <u>Figure 11 A: Successfully Uploaded</u>

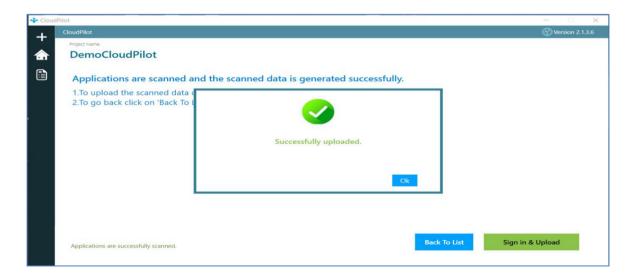
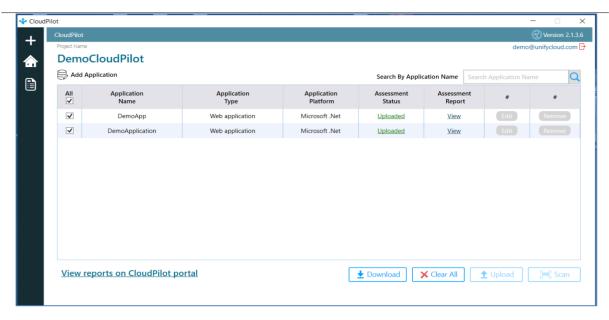


Figure 11 A: Successfully Uploaded





- You can click on View Button in the grid to view Assessment report.
- Click on View reports on CloudPilot portal link and

You will be directed to the Work or School Account authentication page of the CloudPilot [®] Portal as shown in <u>Figure 12: CloudPilot Home Page</u>.

16. Log in with your Work or School account on CloudPilot portal and click **Work or School Account** button to access CloudPilot.

NOTE: If you do not have a Work or School account then you can *SignIn with your CloudPilot ID*. To generate a new CloudPilot ID, you can contact our support team on support@unifycloud.com or click here.



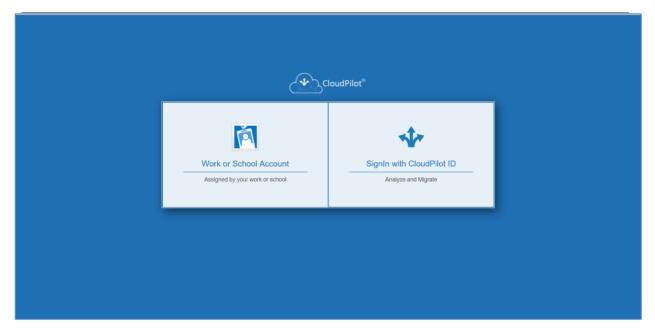
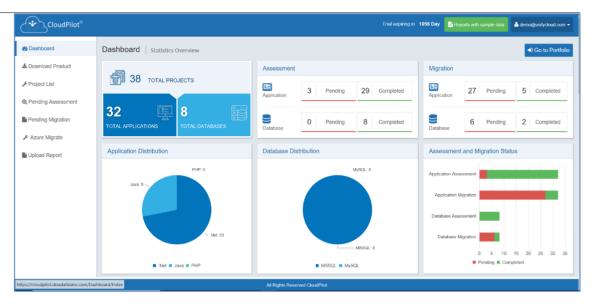


Figure 12: CloudPilot Home Page

17. You will login to the CloudPilot Dashboard which contains the statistical overview of the application, database, and application dependencies assessment.

NOTE: You need to implement all the recommendations to remediate your application, database and application dependencies.





18. Click **Analysis** button as shown in Figure 13: Analysis Dashboard.

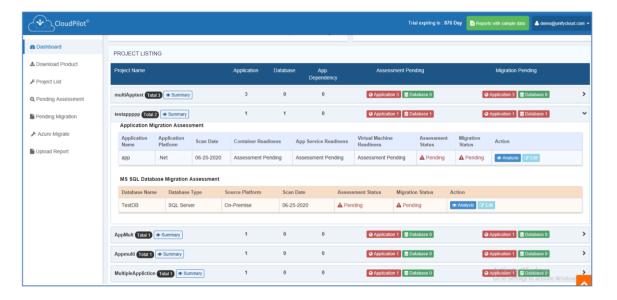
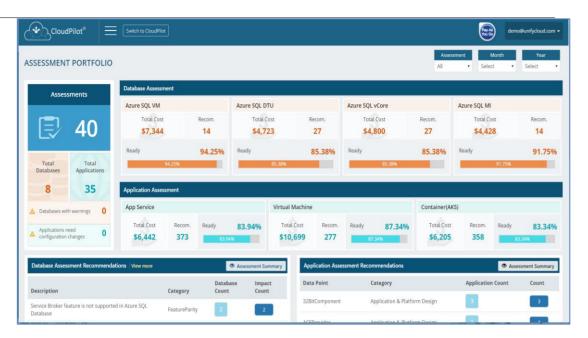


Figure 13: Analysis Dashboard

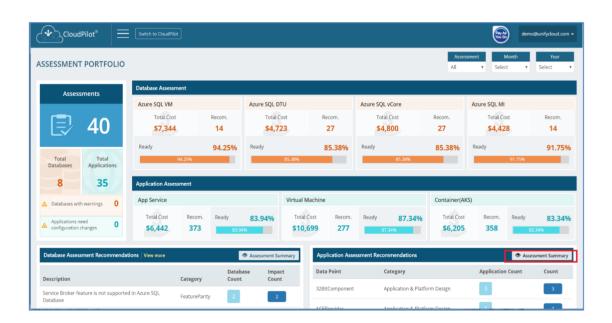
NOTE: You can follow the steps to perform analysis of Application as described in Section 3.4.

19. In the Dashboard on the top right corner click on Go to Portfolio. You will be redirected to CloudPilot Portfolio Dashboard where user can see the Assessment list of all application and database those has been scanned/uploaded into the portal.



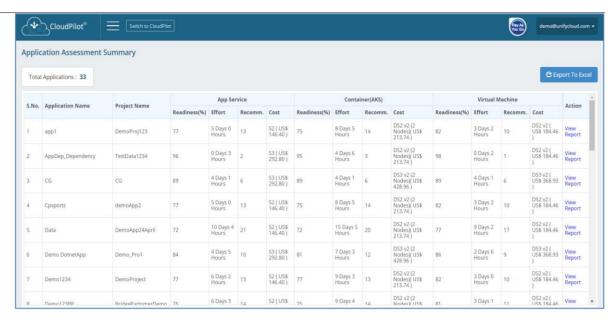


20. Click on **the Assessment Summary** button then the user will see the Assessment summary of all the Applications.

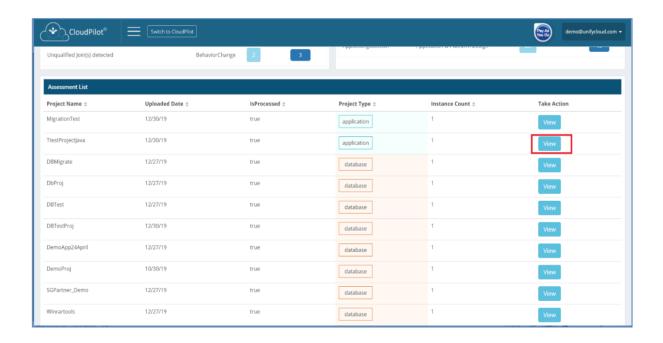


Application Assessment Summary





21. When User click on the "View" Button from portfolio overview page then User can view the details of assessment of applications.





22. By Clicking the view button User will see the Application Assessment Overview page with cost, recommendations, and efforts.





6. Create Multiple Database Assessment Project

1. Enter the project name in the text box and click Create as shown in <u>Figure 1</u>: <u>Create Project</u>

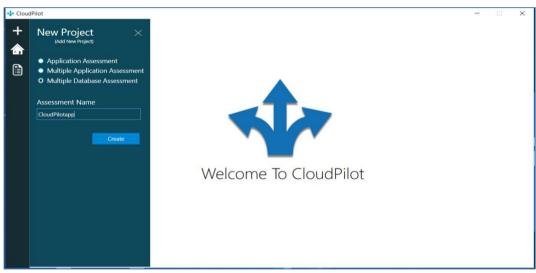


Figure 1: Create Project

Add Database

IMPORTANT: *Logged in user must have SysAdmin permission to the Database server.

IMPORTANT: Microsoft Data Migration Assistant should be installed to assess database. If you haven't downloaded, click on **click here** button to download as shown in <u>Figure 2</u>: <u>Add Database Details</u>.

2. After the installation of Microsoft Data Migration Assistant. Enter the details of your **On-premises Database Server** as shown in <u>Figure 2: Add Database Details</u>.



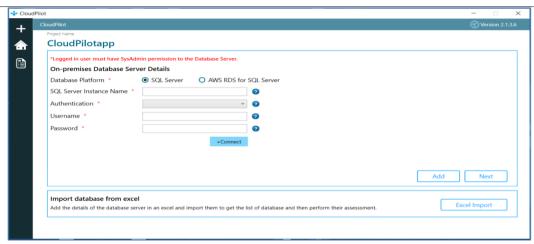


Figure 2: Add Database Details

3. Select the desired Database Platform radio button.

SQL Server – Database Platform

- 4. Enter Server Name.
- 5. Select the Authentication to your choice either to **SQL Server Authentication or** Windows Authentication.

NOTE: For SQL Server Authentication, you need to enter your credentials and click **+Connect** to connect to the cloud remote server.

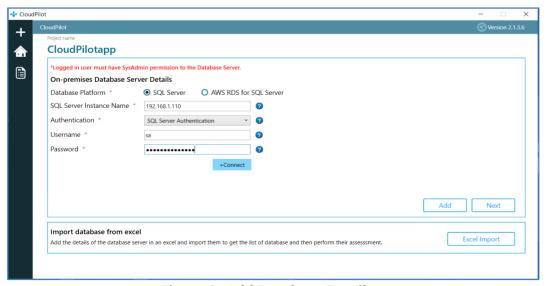


Figure 3: Add Database Details

6. Click on +**Connect** and select the database as shown in <u>Figure 4: Database</u>
Added



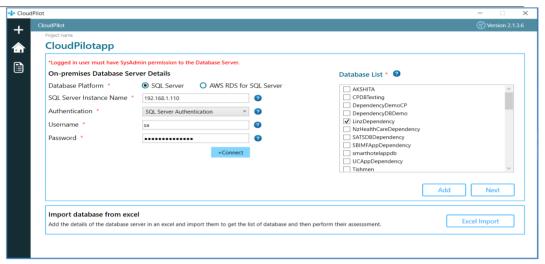


Figure 4: Database Added

- 7. Once the Database details are complete, click **Add**.
- 8. Click on Next button and you will get a dialog box with a message "1 Database(s) added successfully ", click **OK** as shown in Figure 5: Database Added Successfully

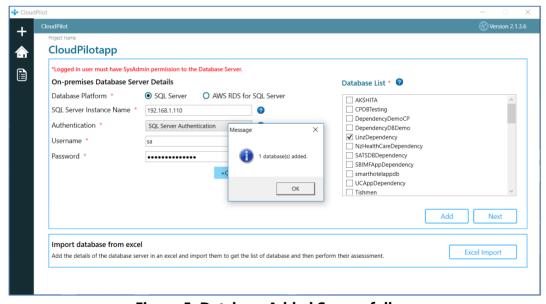


Figure 5: Database Added Successfully

9. To add more databases, select the multiple databases by clicking the checkbox where list of databases is displayed and click Add.



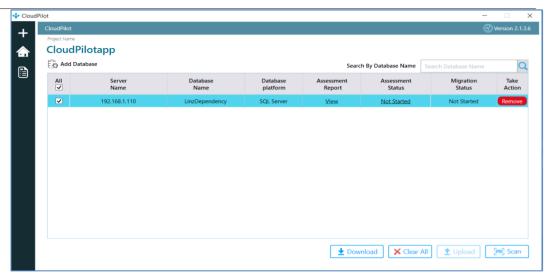
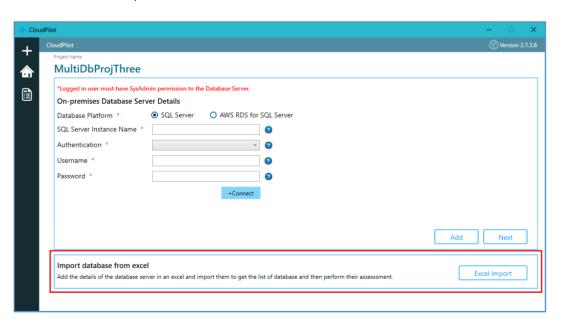


Figure 6: Database Details

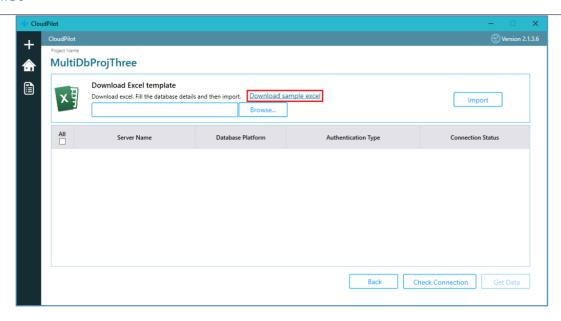
10. ANOTHER WAY TO ADD DATABASE A. IMPORT EXCEL

1. You can also add databases by importing the excel that contains server information. Click on Excel Import.

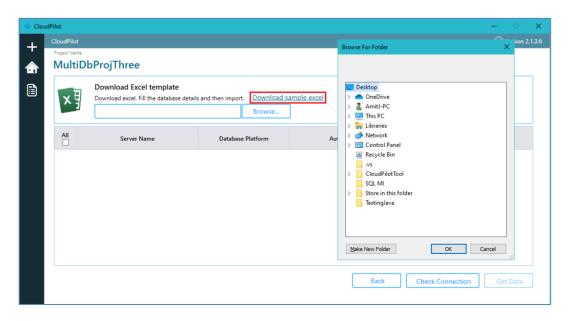


2. Click on Download sample excel button that appears as hyperlink.





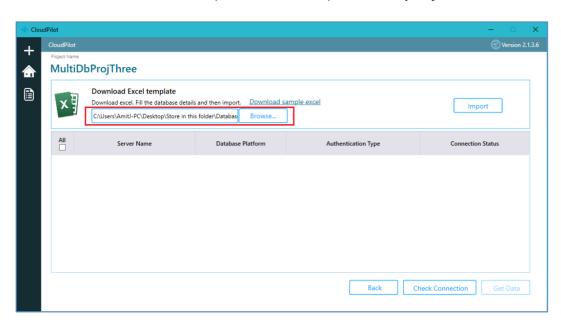
3. Save the excel template to your desired location.



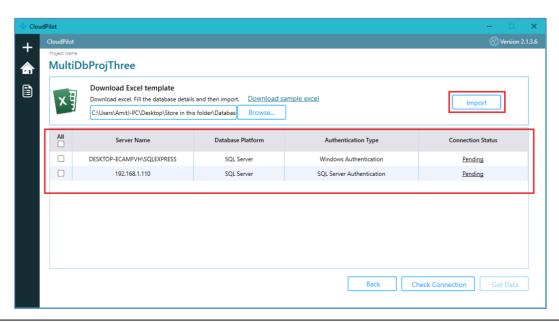
4. Fill in the excel form by providing correct details about server name, authentication



5. Click on Browse. Provide the path of excel template which you just filled.

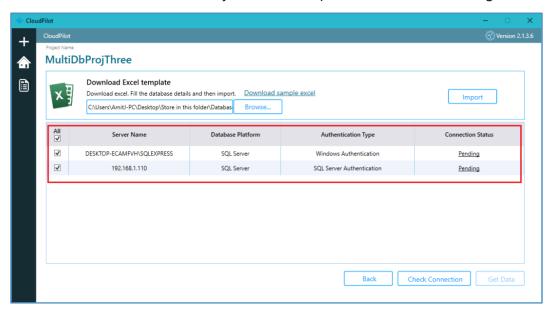


6. Click Import. The details are imported from excel to tool and are displayed in the grid.



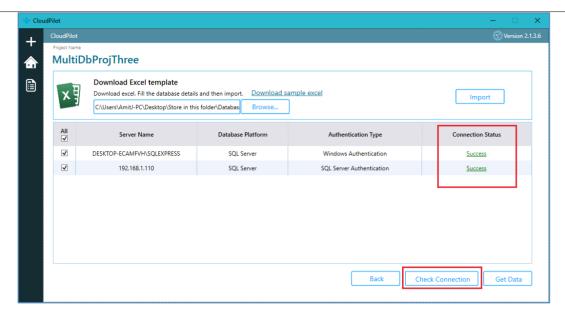


7. Select the server from which you want to import database for scanning.

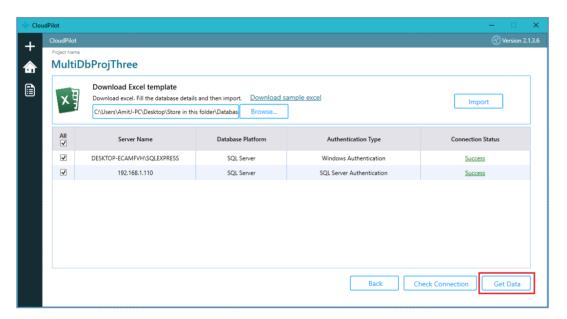


8. Click on the Check Connection button which will check if the connection to the selected server is made or not. If the connections are successful success status will be displayed in green color in the grid.





9. Click on Get Data to fetch the list of databases from the selected server. The list of databases from those servers will be displayed in the next screen from where you can proceed for the scanning process.



10. The Scanning of Selected Databases is in process as shown in Figure 7: Scanning



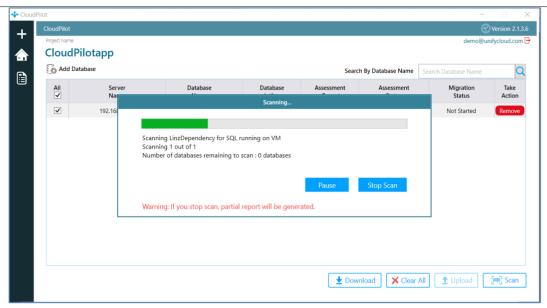


Figure 7: Scanning

11. Databases are scanned and the scanned data is generated successfully as shown in Figure 8: Databases Scanned Successfully

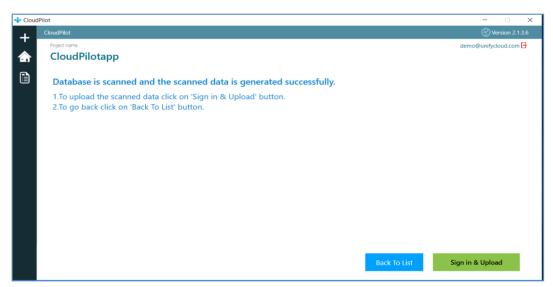


Figure 8: Database Scanned Successfully



12. Click on the Sign in & Upload button and Login Window will appear on the screen as in Figure 9: CloudPilot - Sign In.

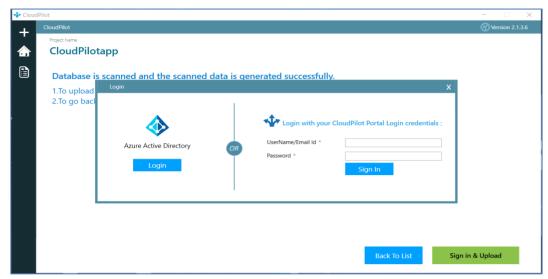


Figure 9: CloudPilot - Sign In

13. Enter your credentials and click **Next** to login as shown in <u>Figure 10: Login - Enter Credentials</u>

NOTE: If you do not have a Microsoft account then you need to create one, click **Create one** button as shown in Figure 11: Login -Enter Credentials.

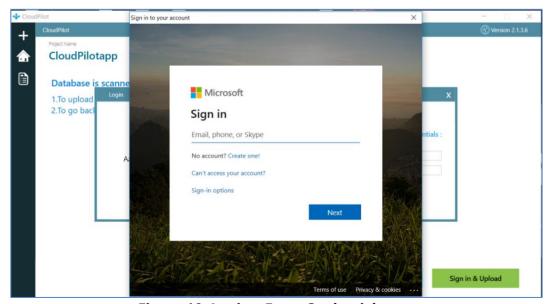


Figure 10: Login – Enter Credentials



14. Applications reports are successfully uploaded as shown in <u>Figure 11: Successfully Uploaded</u>

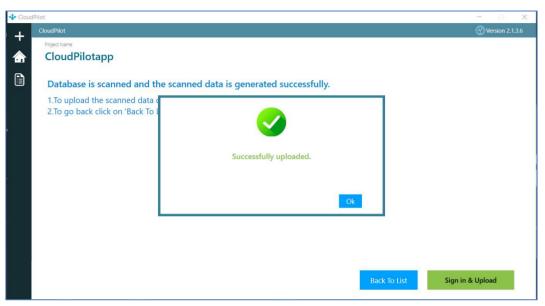


Figure 11: Successfully Uploaded

15. Once the assessment report is generated, click Start Migration to migrate the database to Azure as shown in Figure 12: Database Migration

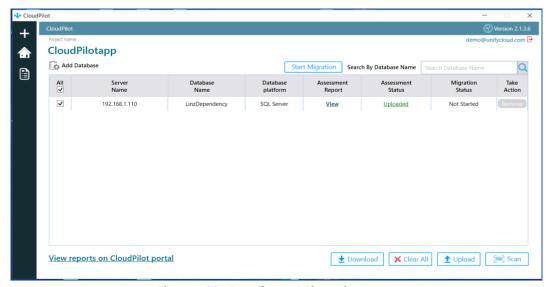


Figure 12: Database Migration



You can click on View Button in the grid to view Assessment report. Click on View reports on CloudPilot portal link and You will be directed to Work or School Account authentication page of the CloudPilot[®] Portal as shown in <u>Figure 13: CloudPilot Home Page</u>. Log in with your Work or School account on CloudPilot portal and click **Work or School Account** button to access CloudPilot.

NOTE: If you do not have a Work or School account then you can *SignIn with your CloudPilot ID*. To generate a new CloudPilot ID, you can contact our support team on support@unifycloud.com or click here.

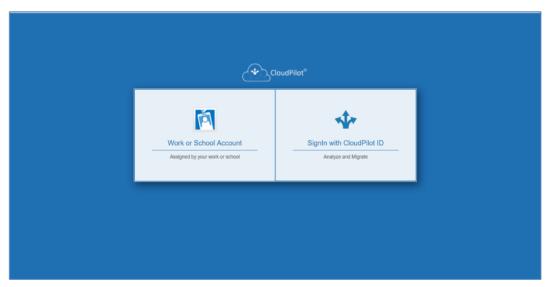
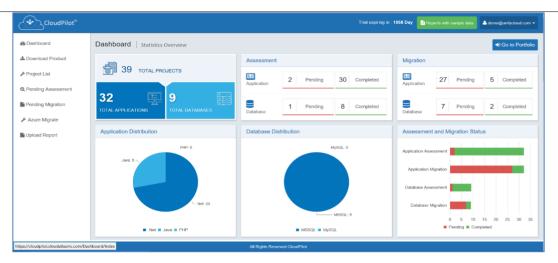


Figure 13: CloudPilot Home Page

16. You will login to the CloudPilot Dashboard which contains the statistical overview of the application, database, and application dependencies assessment.

NOTE: You need to implement all the recommendations to remediate your application, database and application dependencies.





17. Click Analysis button as shown in Figure 14: Analysis Dashboard

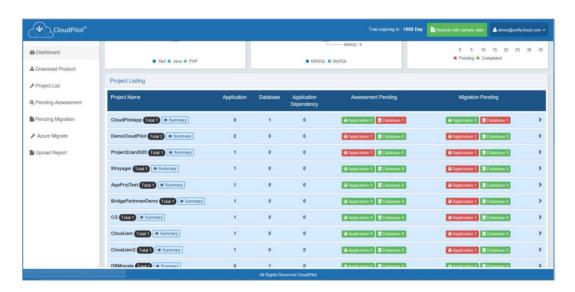
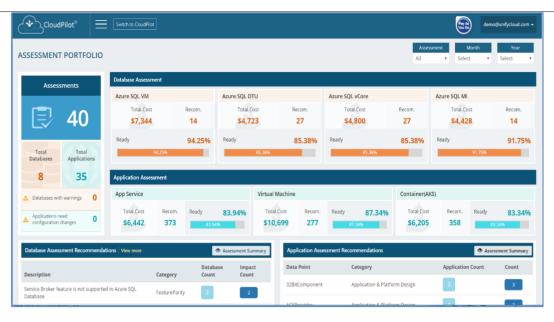


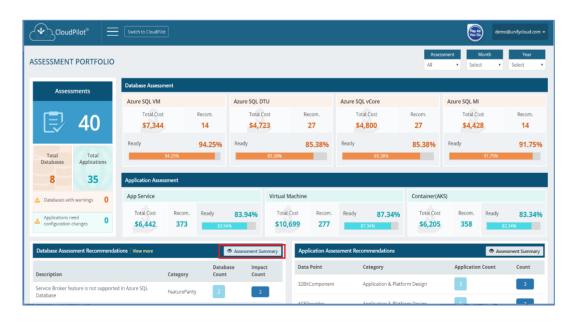
Figure 14: Analysis Dashboard

18. In the Dashboard on the top right corner click on Go to Portfolio. You will be redirected to CloudPilot Portfolio Dashboard where user can see the Assessment list of all application and database those has been scanned/uploaded into the portal.



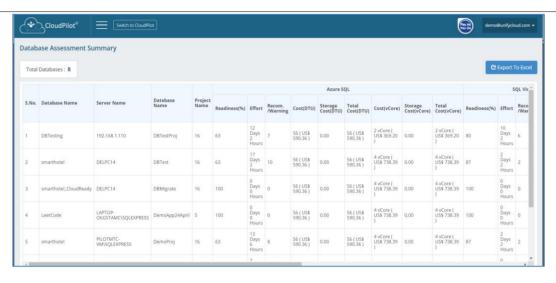


19. Click on the Assessment Summary button then the user will see the Assessment details of all the databases.

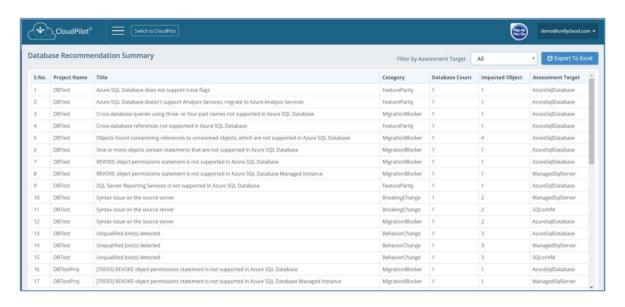


Database assessment summary on different azure service.



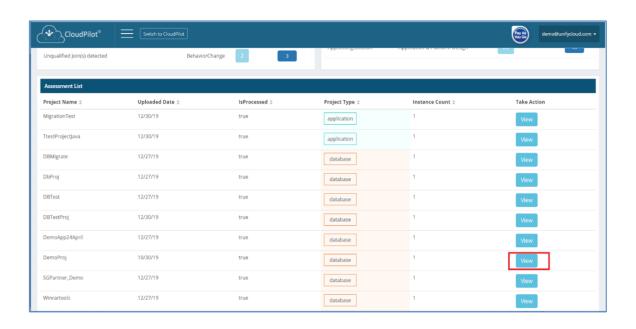


Recommendation list for all the assessments on diiferent Assessment target.





20. When User click on the "View" Button from portfolio overview page then User can view the details of assessment of databases.



21. By Clicking the view button User will see the Database Assessment Overview page with cost, recommendations, and effort on different platforms.





DATABASE MIGRATION

For the migration of database follow the steps as described in Section 4.5.



7.Contact

7.1 Support

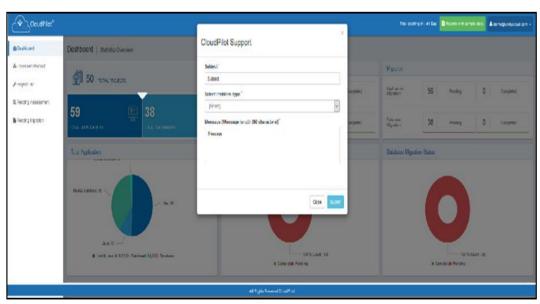
1. For any problems or clarifications, click **Support** on the top right side of CloudPilot Dashboard dropdown list as shown in <u>Figure 99: Support</u>.



Figure 99: Support

A CloudPilot Support window appears as shown in Figure 100: CloudPilot Support.

Figure 100: CloudPilot Support



- 1. Enter the value for **Subject.**
- 2. Select the **Problem Type.**
- 3. Type your message in the **Message box.**
- 4. Click **Submit** when complete



NOTE: A system-generated mail will be sent to your registered Email - Id with the tracking number of your support ticket.



7.2 Feedback

1. For any feedback, click **Feedback** on the top right side of CloudPilot Dashboard dropdown list as shown in <u>Figure 101: Feedback</u>.

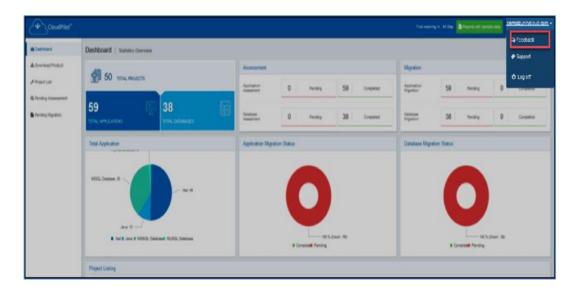


Figure 101: Feedback

A CloudPilot Feedback window appears as shown in Figure 102: CloudPilot

Feedback.

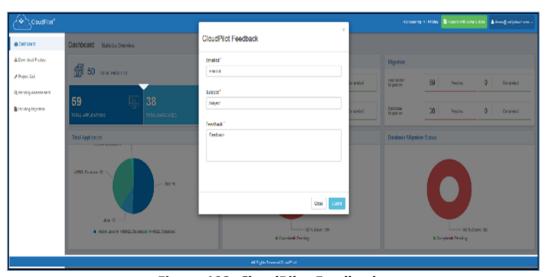


Figure 102: CloudPilot Feedback

- 2. Enter your valid Email ID.
- 3. Enter the value for Subject.
- 4. Type your message in the **Feedback box**.
- 5. Click **Submit** when complete.

NOTE: A system-generated mail will be sent to your registered Email - Id with the tracking number of your support ticket.