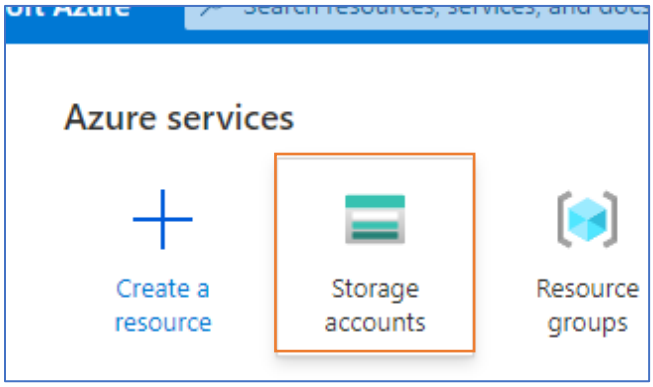
Case 1 This case is divided into the following 3 main Steps A, B, C

A. Storge account---→ B. Azure SQL DB---→ C. Power Bi Desktop.

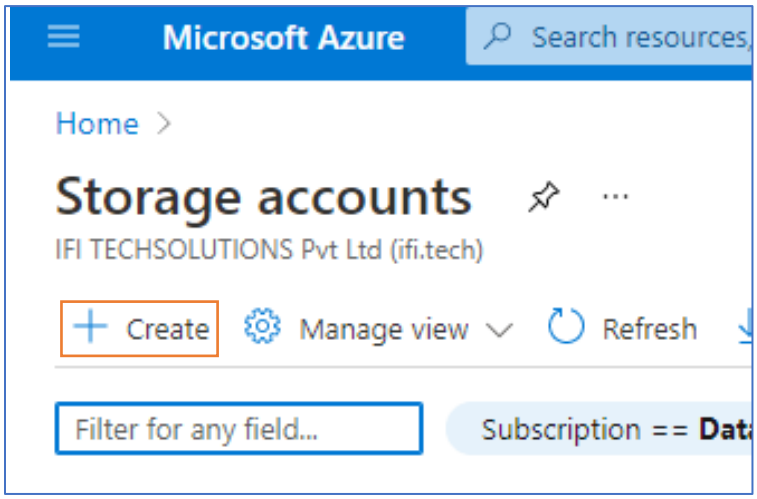
In step **A** we will create a Storge account and configure it with data lake gen 2 then create a container and upload a bacpac file in it.
In Step **B** we will create an Azure SQL Server using Azure portal and connect that to MSSM and Restore bacpac file in Azure SQL Server.
In Step **C** we will connect the Azure SQL Database to Power BI Desktop.

A. Storage account Gen2 and Upload a bacpac file in a Container.
In the following steps, we will Create - Storage Account Data Lake Gen2 > Container > Upload "sample. bacpac".

Step1 Select a Storage Account. Note: <Create using Azure Portal>.

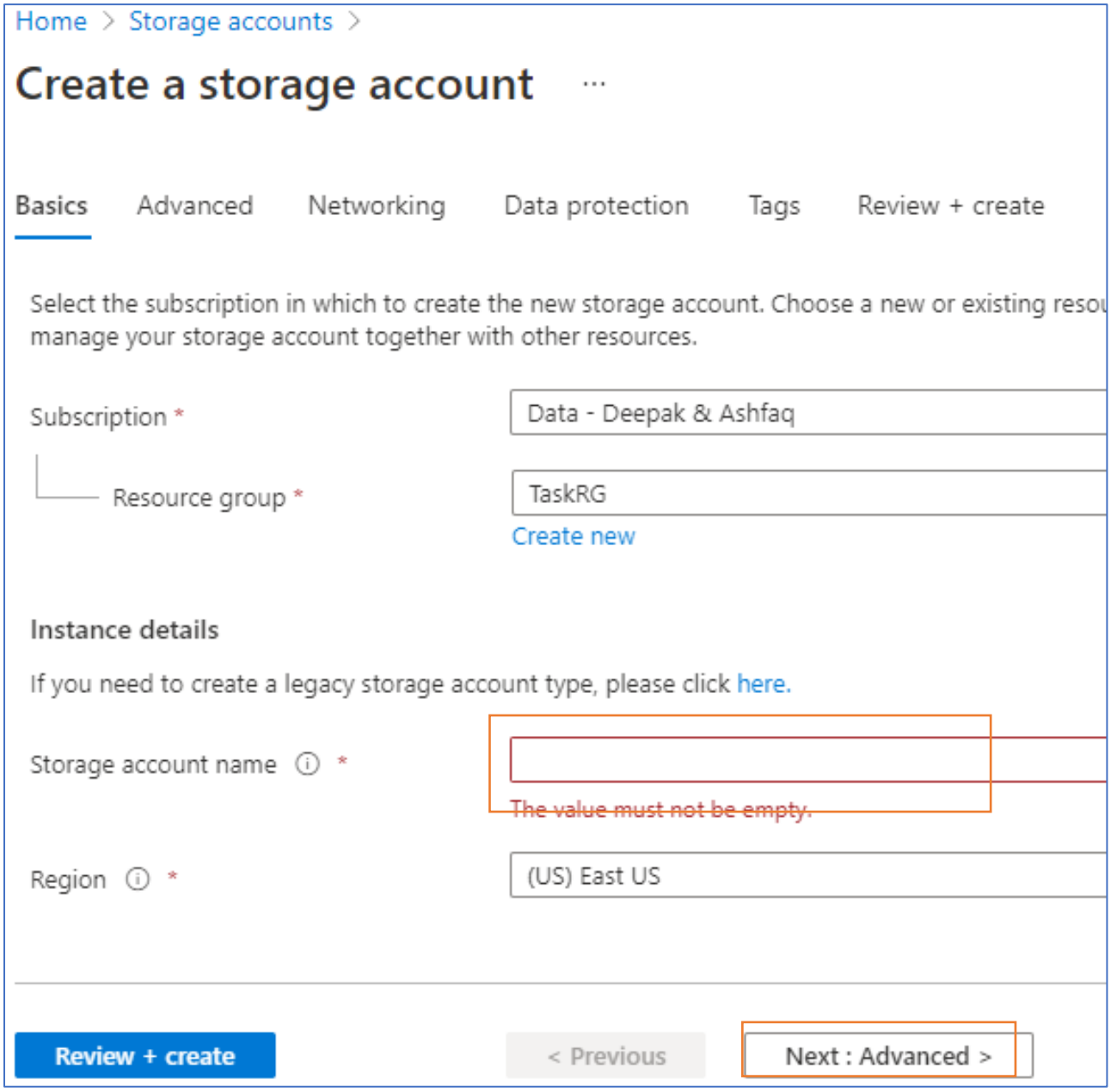


Step2 Click on the **"+ Create** "Button.

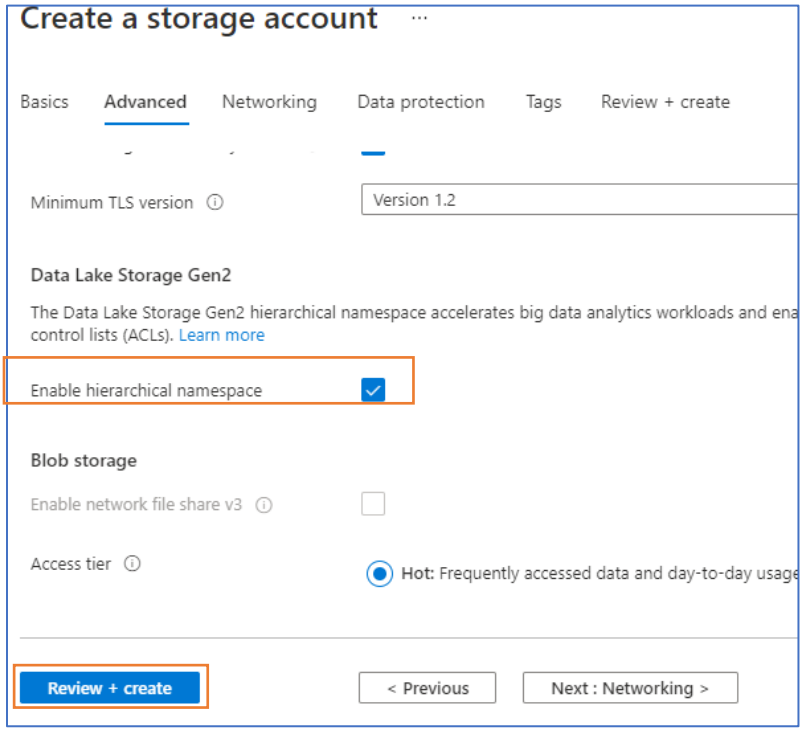


Step3 Enter data as shown below and click the "**Next: Advanced**" Button.

Subscription:<Your azure Subscription select from Drop-Down>
Resource group:<Select from Drop-Down / Create a new one>
Storage account name:<Give any Name for Storage account>

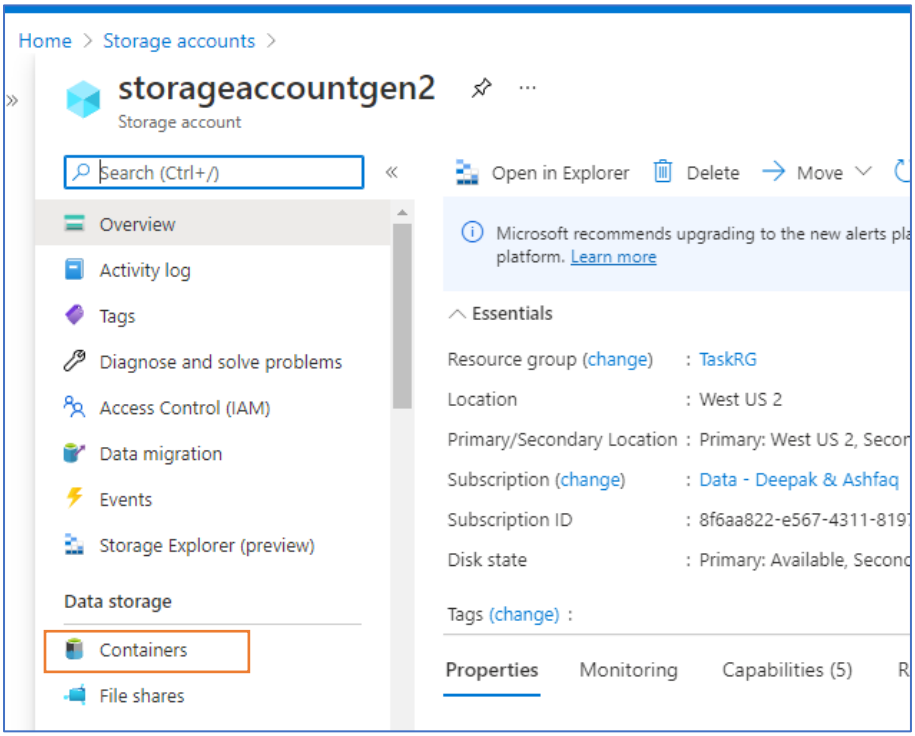


Step4 Click on "**Enable Hierarchical namespace**" Check box < Note: This will Configure this storage account as "Data Lake Gen 2"> click on the "**Review + Create**" Button.

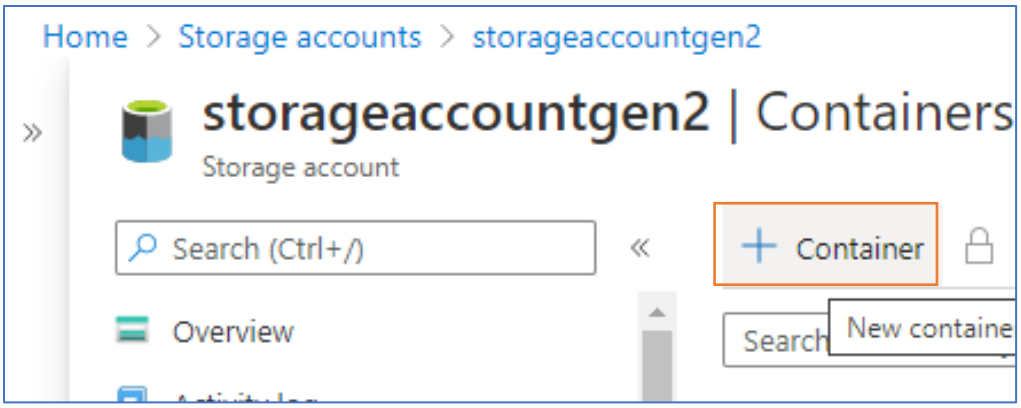


Step5 Upload "Sample.bacpac" in your Storage Account.

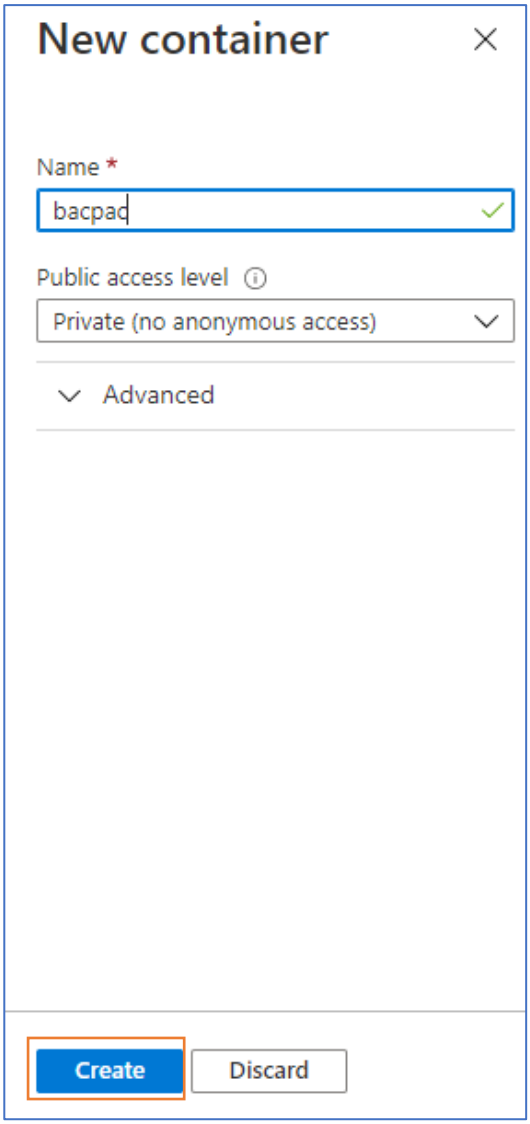
Step 5.1 open Storage account Click on "Containers".



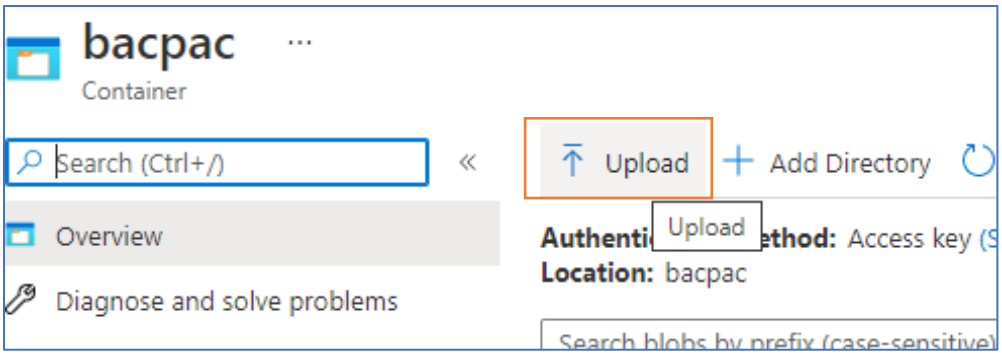
Step 5.2 Click on **"+ Container**" to create a New Container.



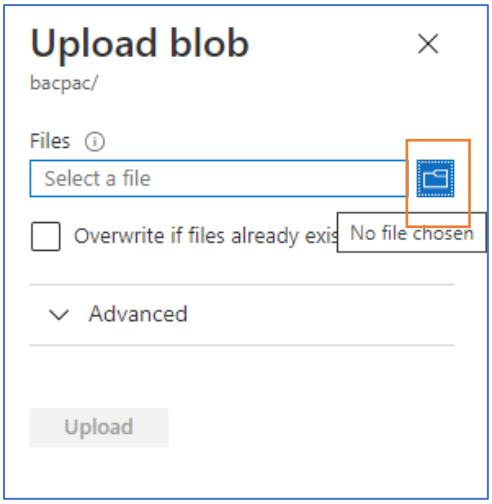
Step5.3 Enter a name <bacpac> of a Container and click on "**Create**" Button



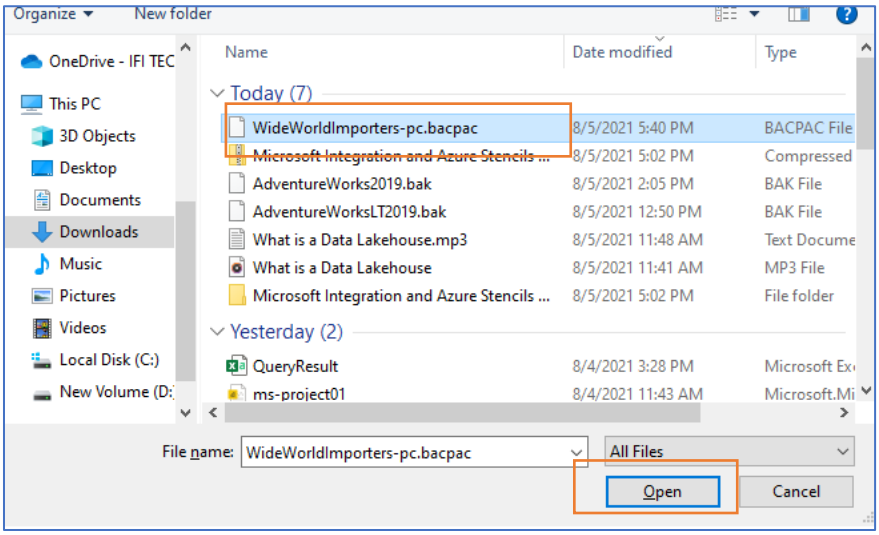
Step5.4 Open "bacpac **Container**" Click on "**upload**" Button.



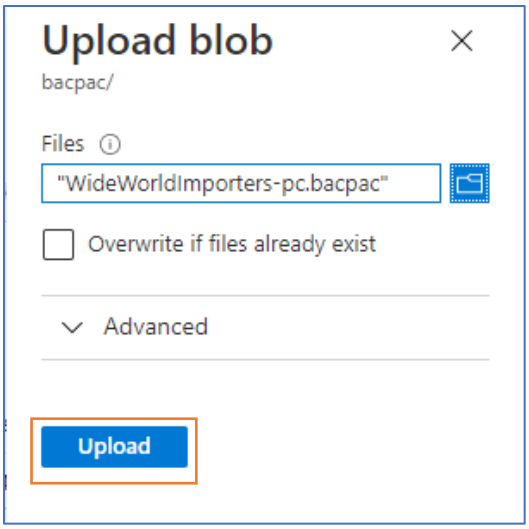
Step5.5 Click on file Icon .



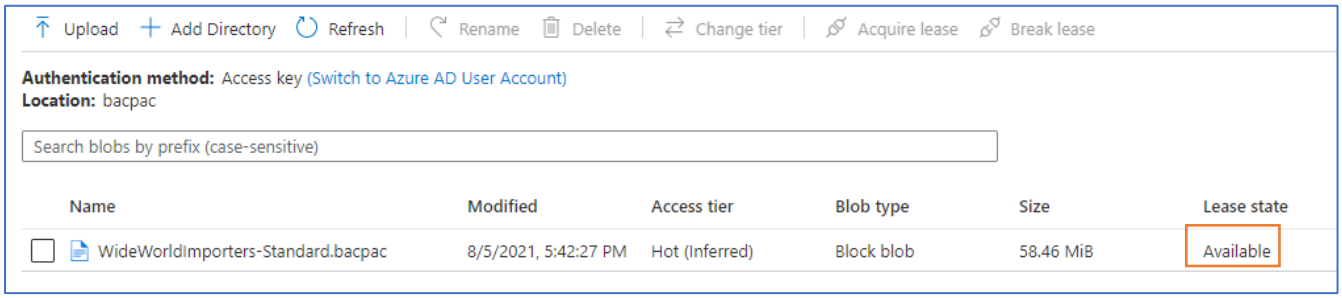
Step5.6 Select a "**datafile**. **bacpac**" file from Local System and Click on Open Button.



Step5.7 Click on "**Uplode**" Button.



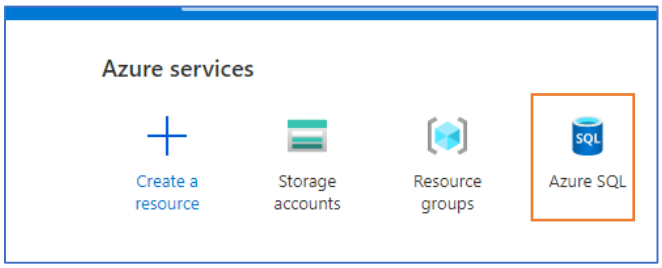
Step5.8 Check The "**Lease State**" is Available.



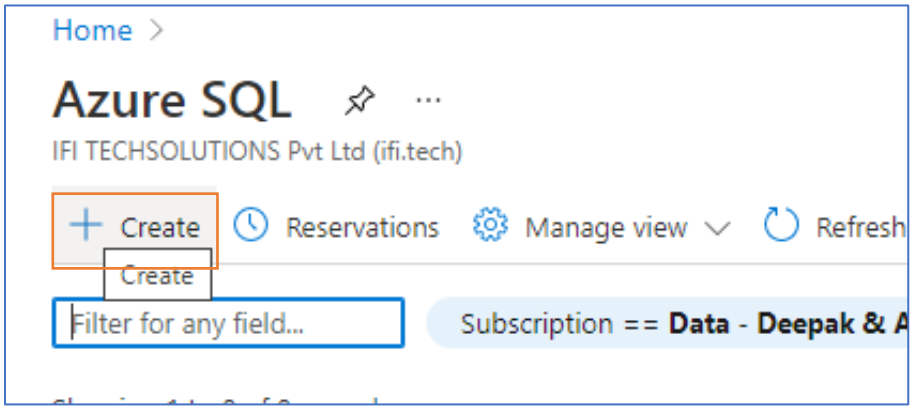
B. Create an Azure SQL DB Using Azure Portal and Restore bacpac file In It.

In the following Steps we will Create – **Azure SQL DB**, and we will see How to restore bacpac file. In **Azure SQL** using **MSSM**.

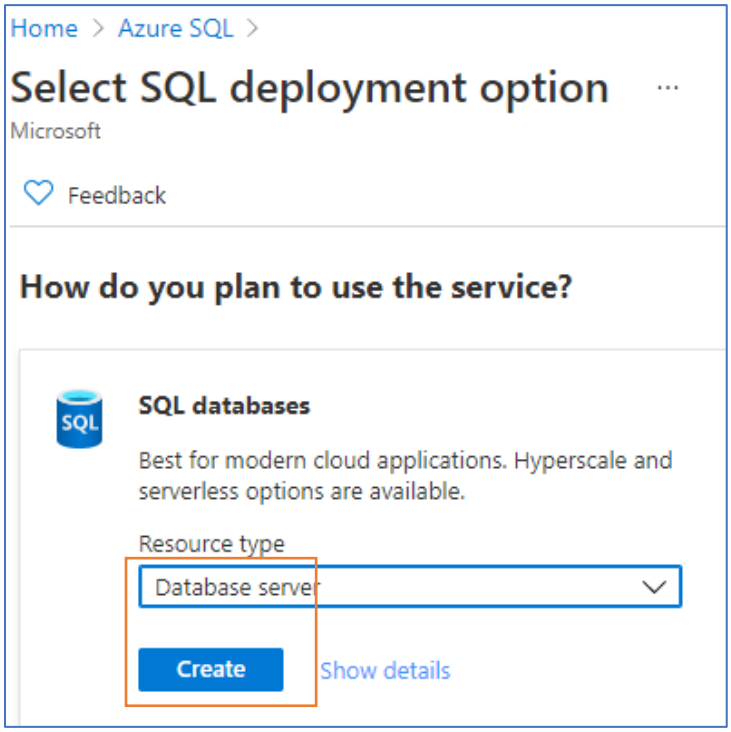
Step1 Select **Azure SQL** from **Azure Portal**.



Step2 Click on **"+ Create**" Button.

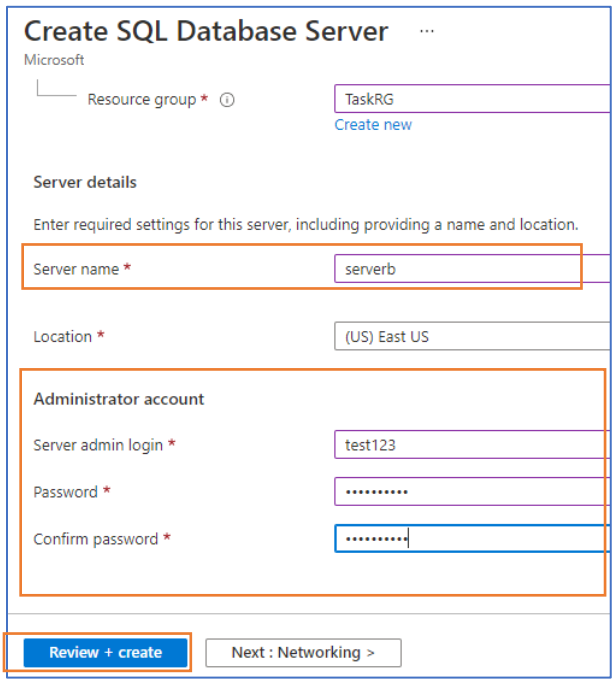


Step3 Select "**Database Server**" and click on "**Create**" button.

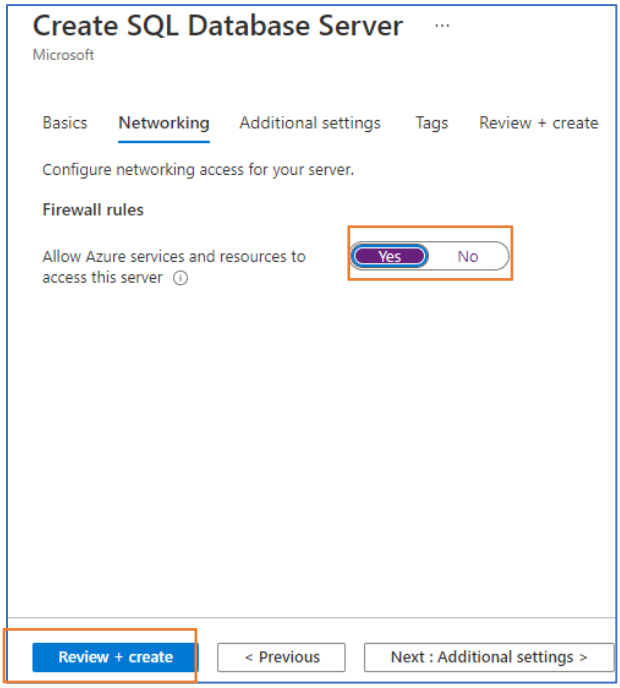


Step4 Enter data as given below.

Server name: <Give a server name eg: serverxyz>
Server admin login: <User id eg: test123>
Password: <Enter password eg:@1234xyz>
Confirm password:<same as password>

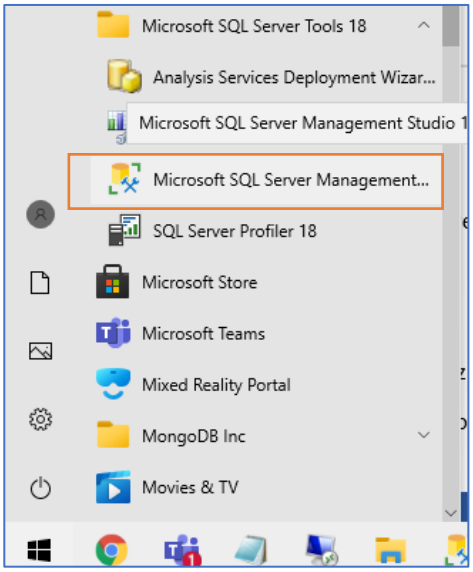


Step5 "**Allow Azure services and resources to access this server**" Select Yes, and click on "**Review + Create**" Button.

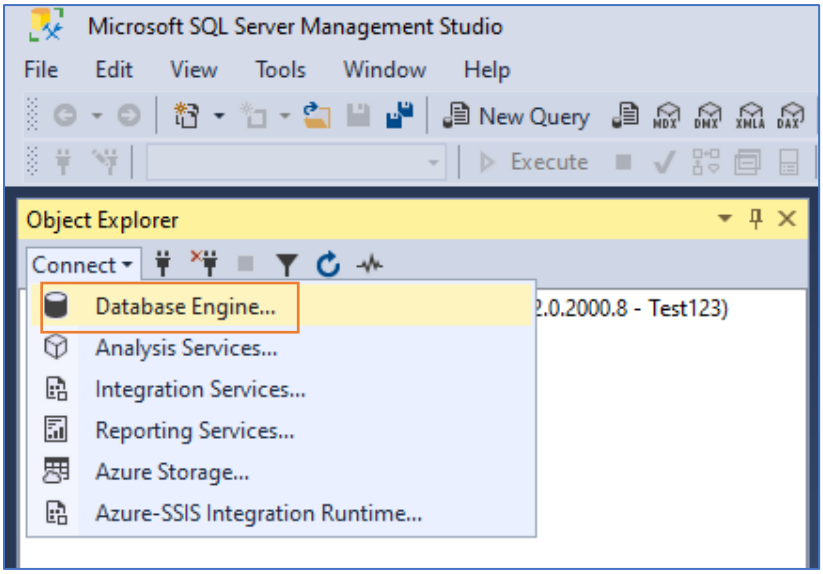


Step6 Restore bacpac using MSSM.

Step6.1 From your system open "**Microsoft SQL Server Management Studio**".

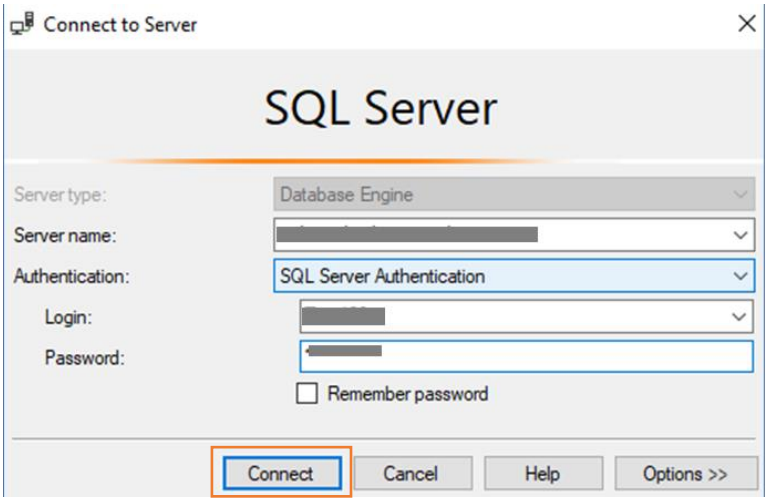


Step6.2 Click on "Connect" Select "Database Engine..".

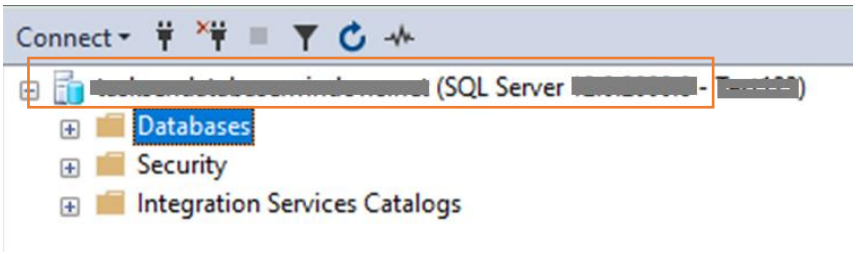


Step6.3 Enter data as given below.

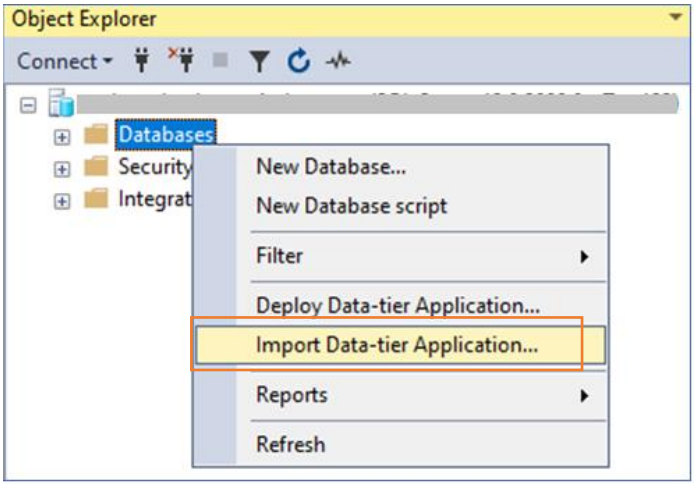
Server name: <server-name>.database.windows.net
Login: <Server user id>
Password: <Server password>



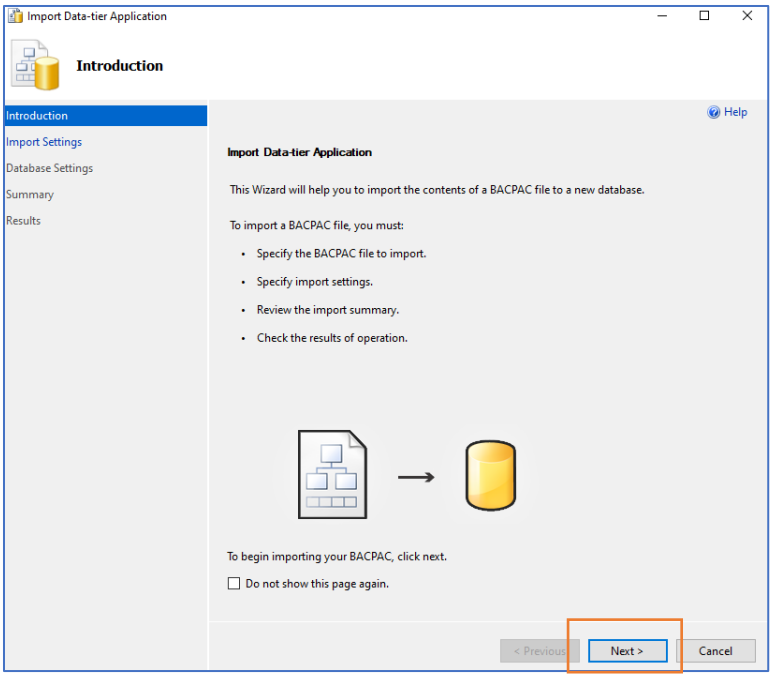
Step6.4 Server is Connected.



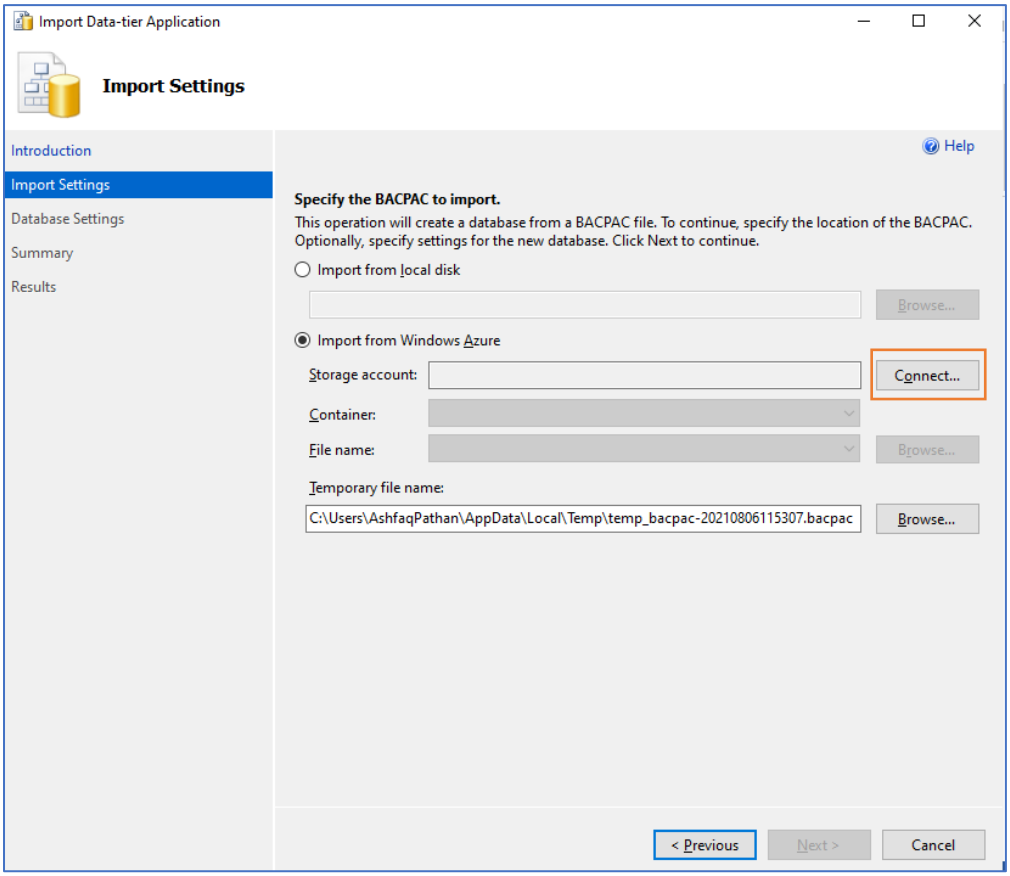
Step6.5 Right Click on Database Folder and select **"Import Data-tier Application**…".



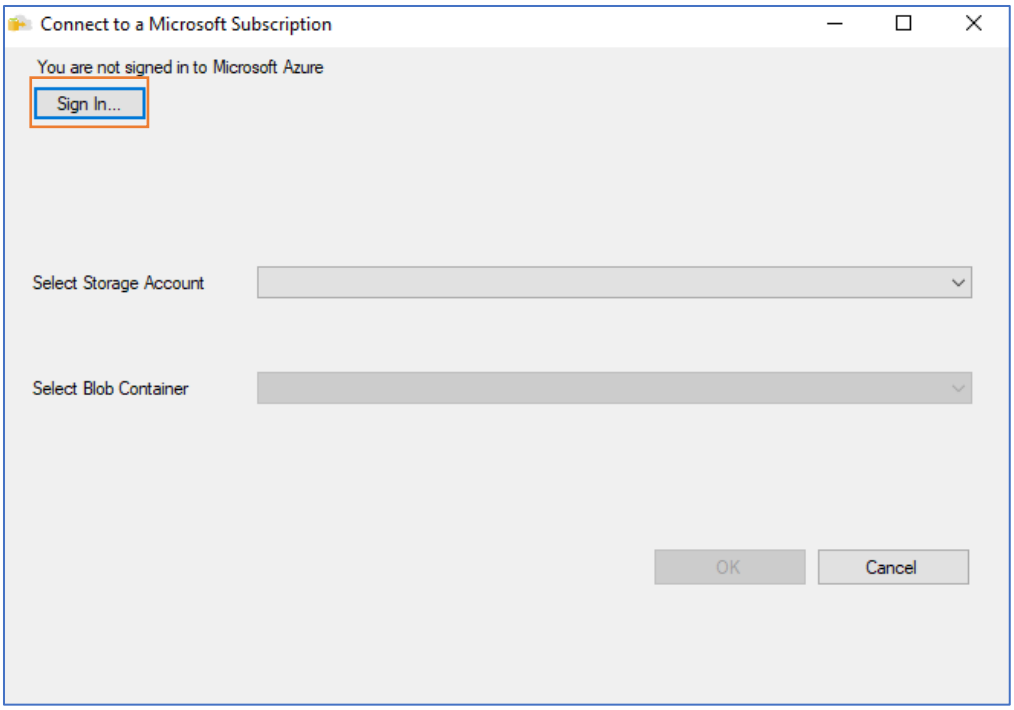
Step6.6 Click on "**Next"** Button.



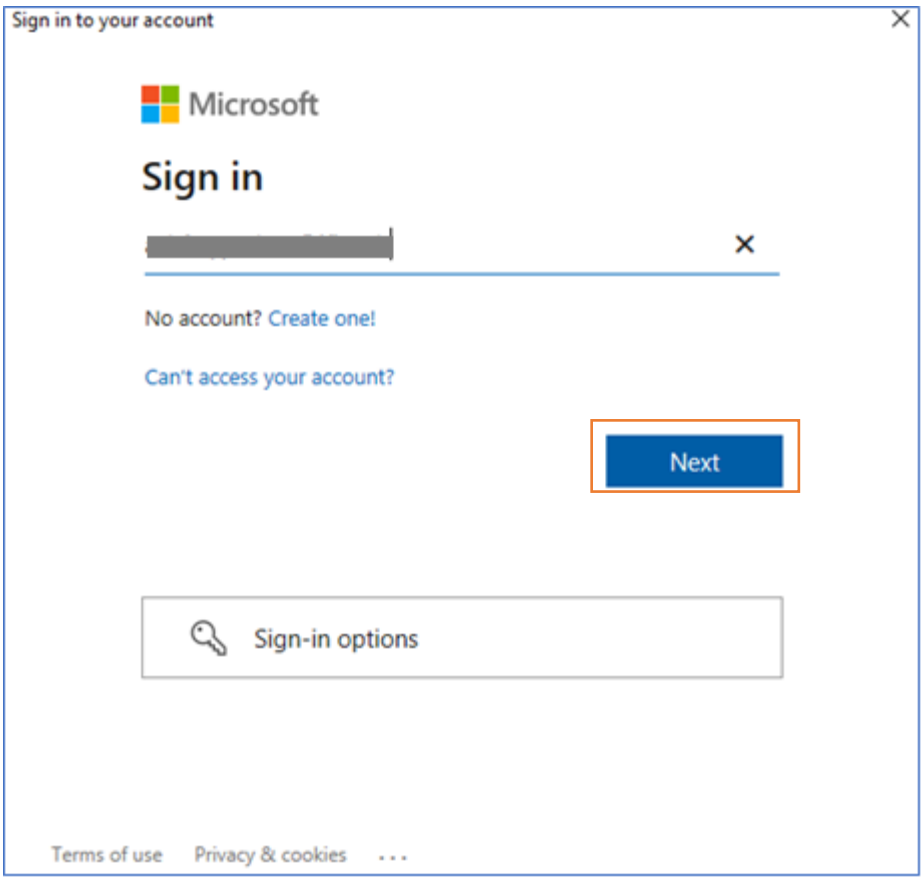
Step6.7 Click on "**Connect"** Button.



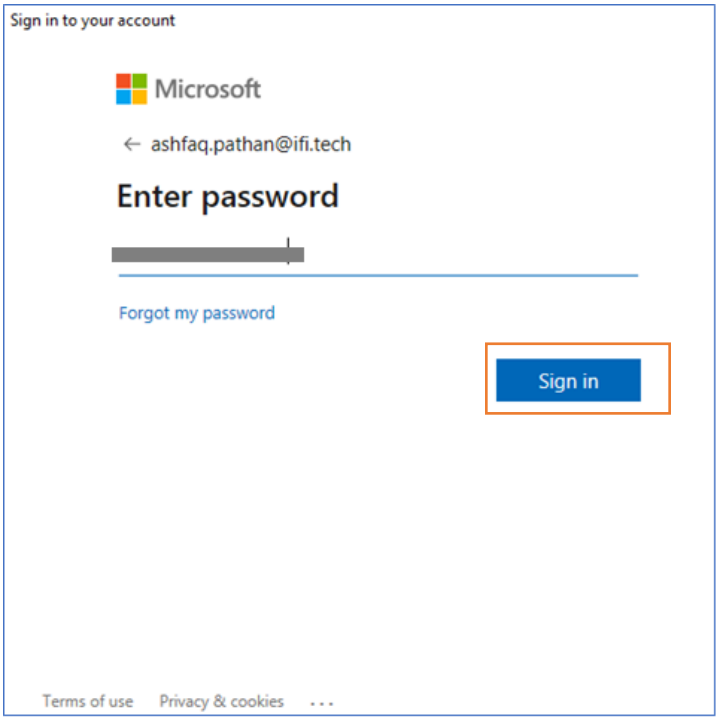
Step6.8 Click on "**Sign in**" Button



Step6.9 Enter your Email Address same as used in Azure Portal

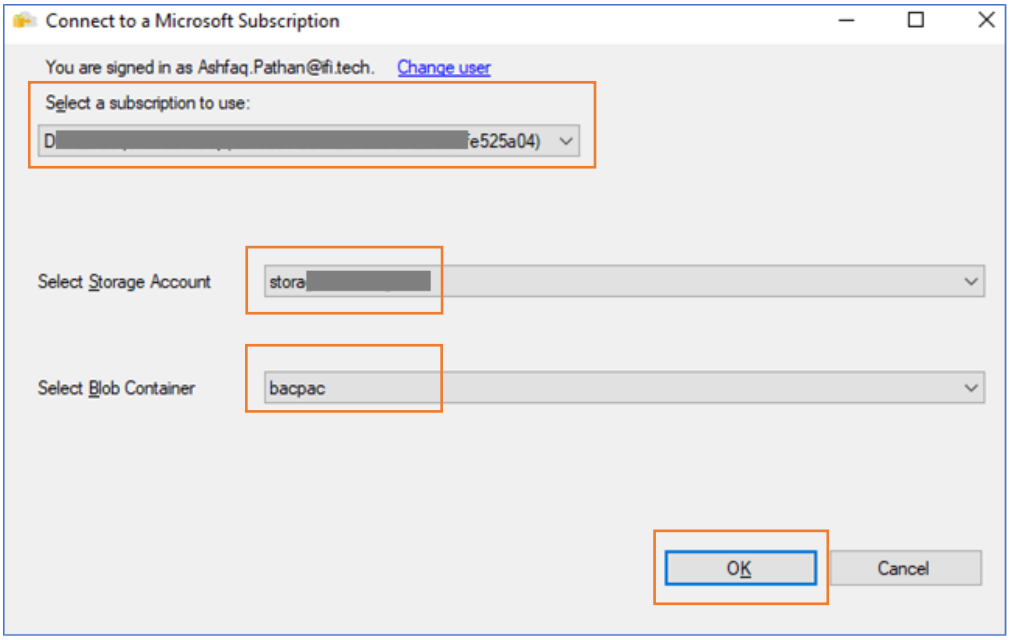


Step6.10 Enter password and click on "**Sign in**" Button.

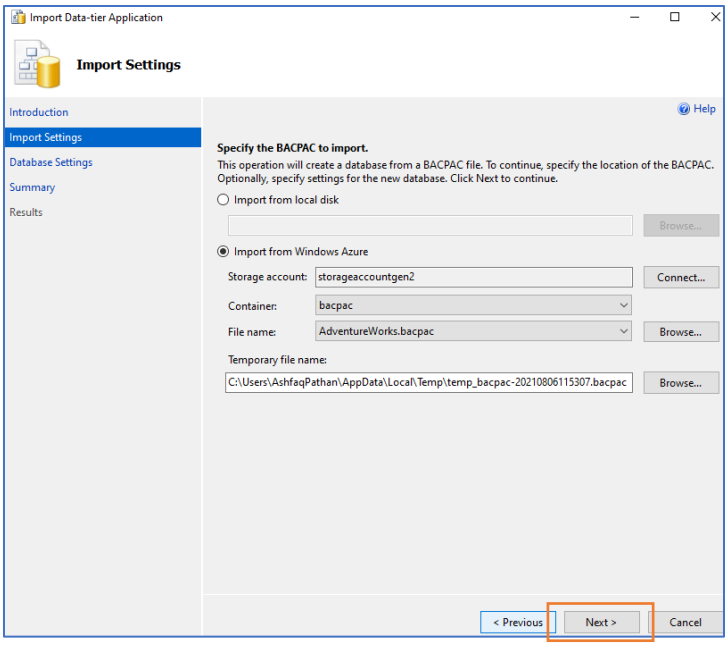


Step6.11 Select below Drop-Down and click on "**OK"** Button.

Select a Subscription to use: <Select in which you have your Storage account>
Select Storage Account:<Select Storage account from drop-down>
Select Blob Container:<Select Container from drop-down >

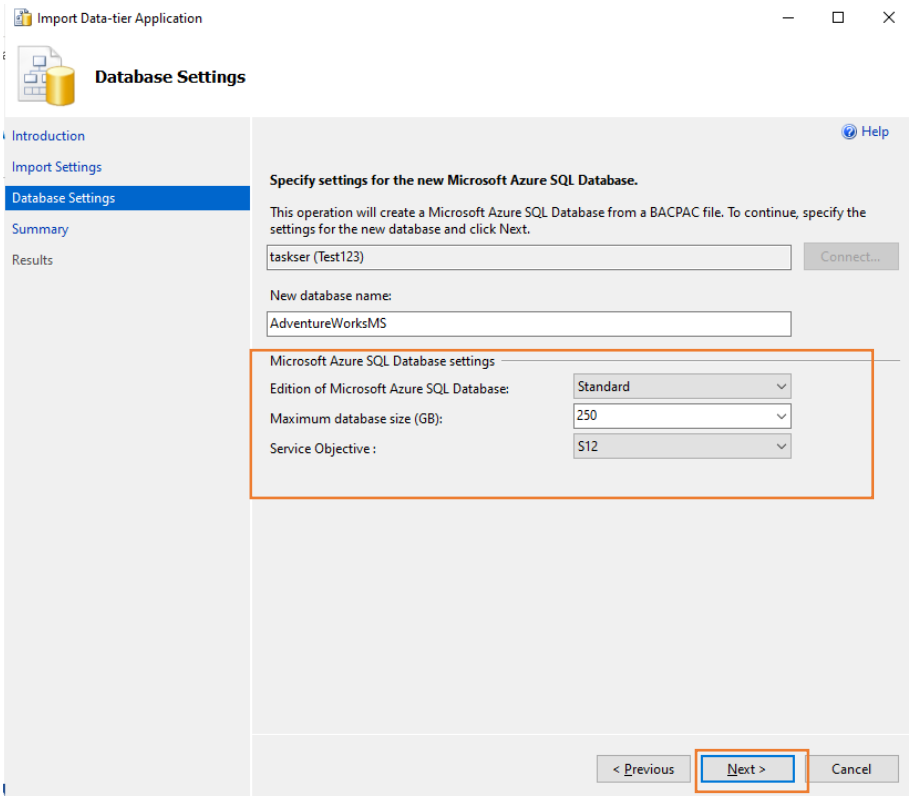


Step6.11 Click on “**Next”** Button.

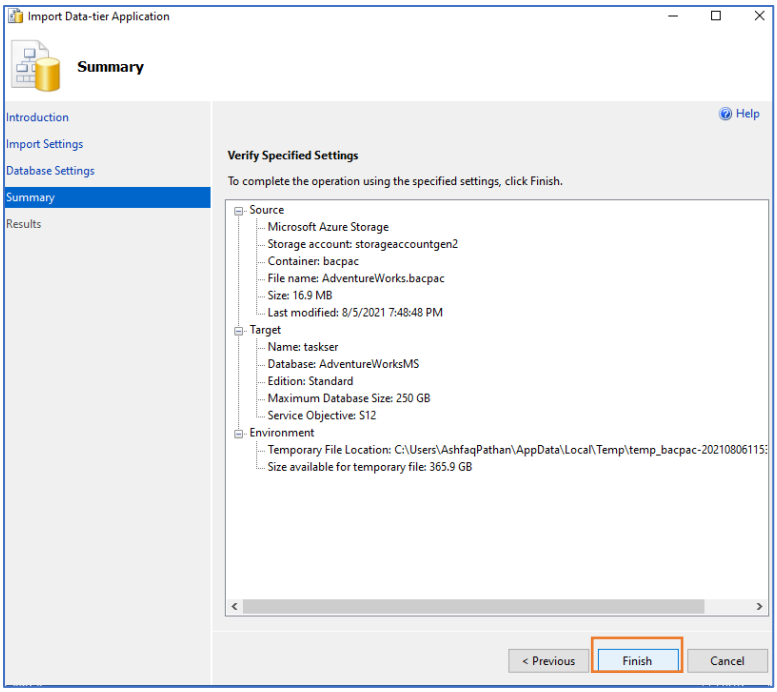


Step6.12 < Note: Based on Your Requirement Configure the “**Microsoft Azure SQL Database Settings** “>

And click on “**Next”** Button.



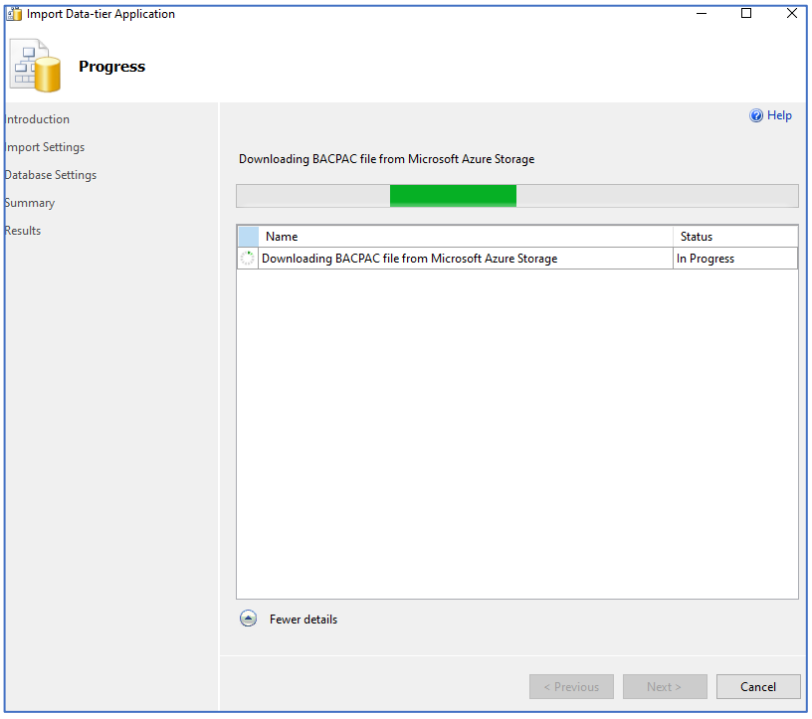
Step6.13 Click on "**Finish**" Button.



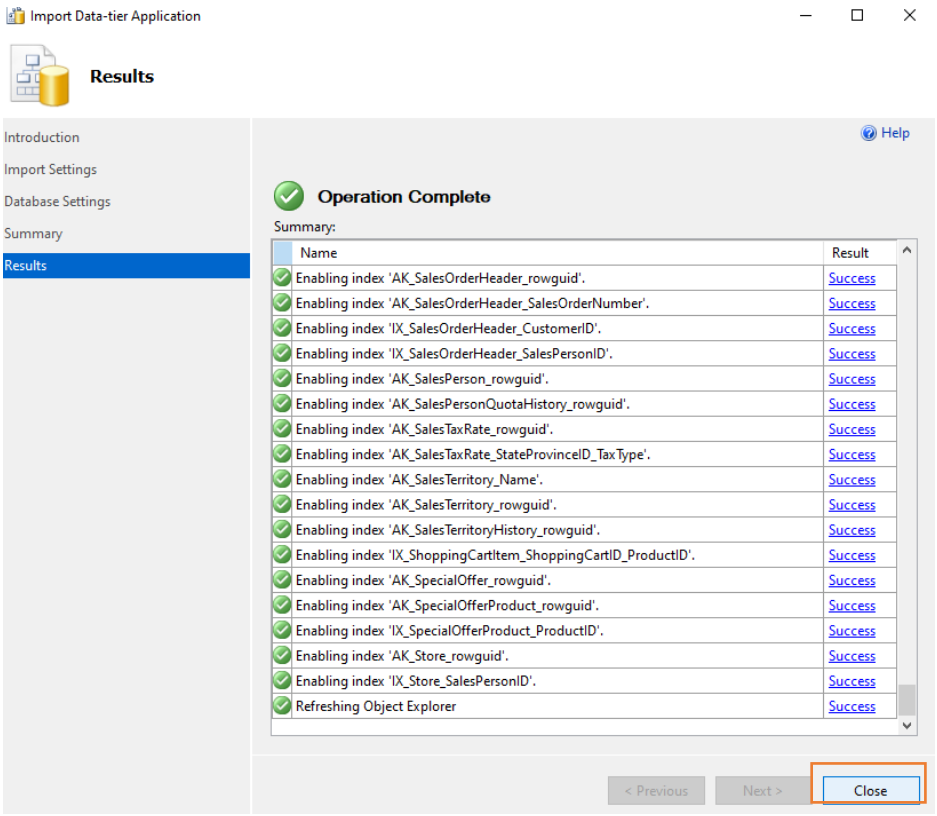
Step6.14 On this wizard you will see all the Import progress.

Note: This step will take some time base on your Bacpac file size + The Pricing Tire you have configured in **Step6.12**.

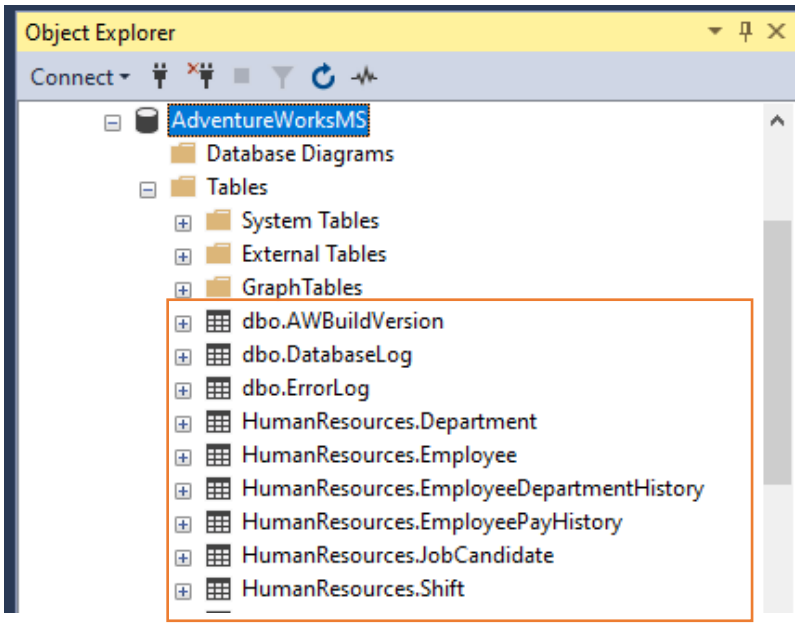
For e.g.: It took 50 min approx. to import 53mb file size with Standard S0 Tire Configuration



Step6.15 Click on "**Close"** Button.

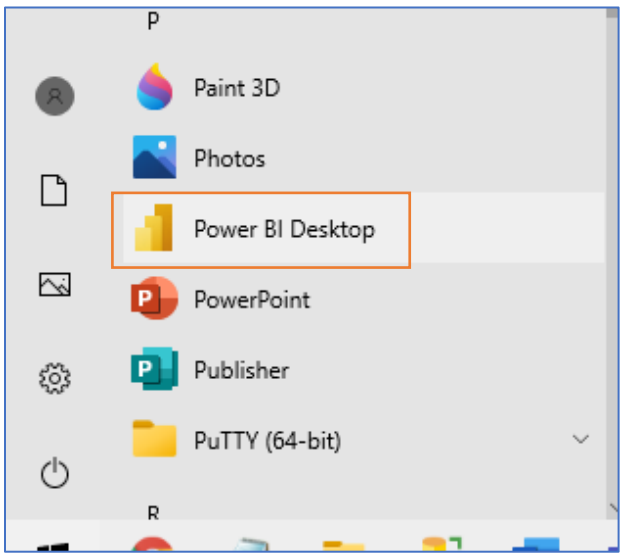


Step6.16 Check the Database bacpac restore is completed.

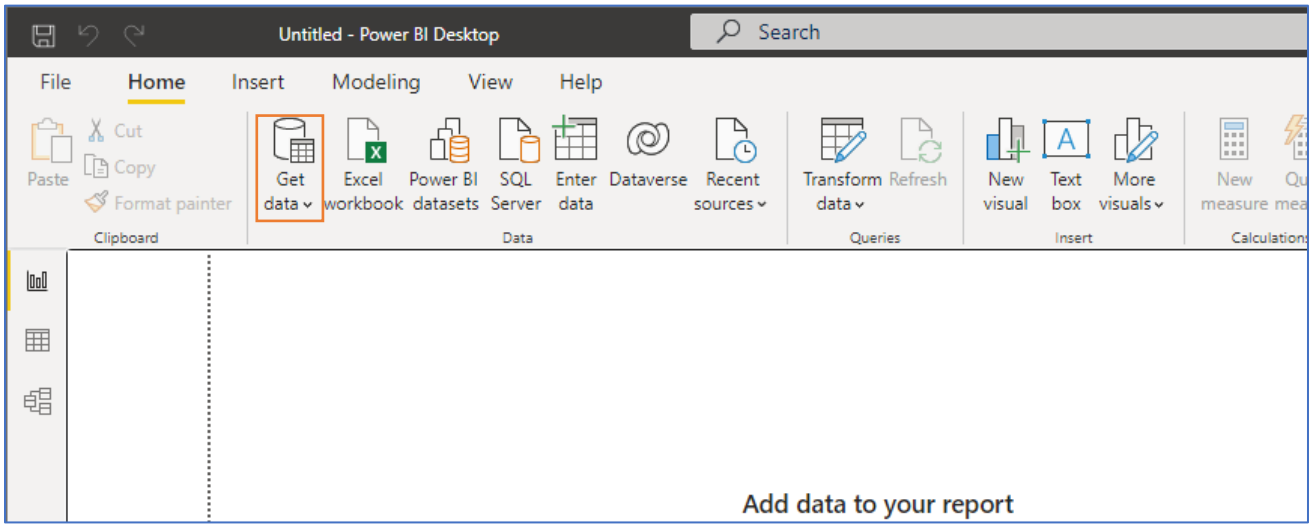


C. Connect Azure SQL Database to Power BI Desktop App.

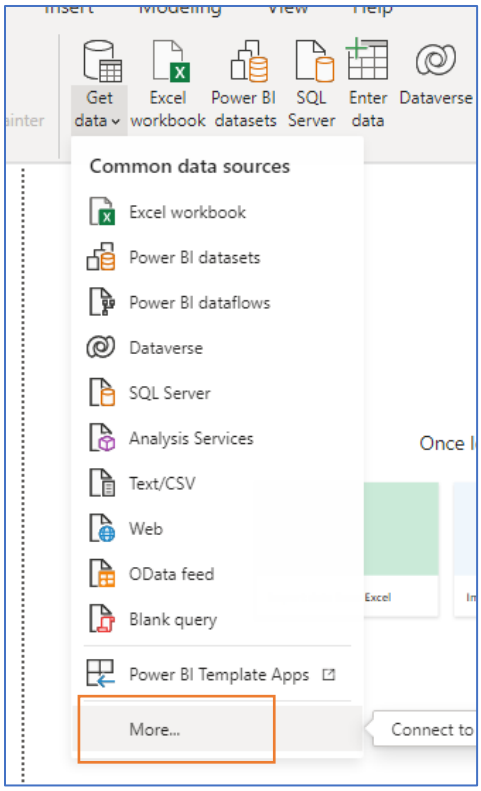
Step1 Open Power BI Desktop.



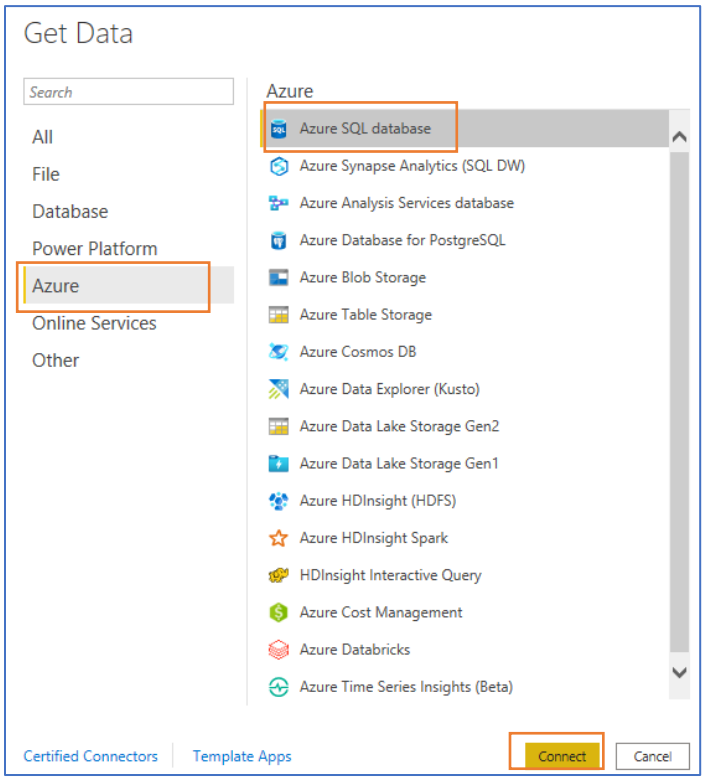
Step2 Click on "**Get data**" from "**Home**" Tab.



Step3 Click on "**More"** Options.

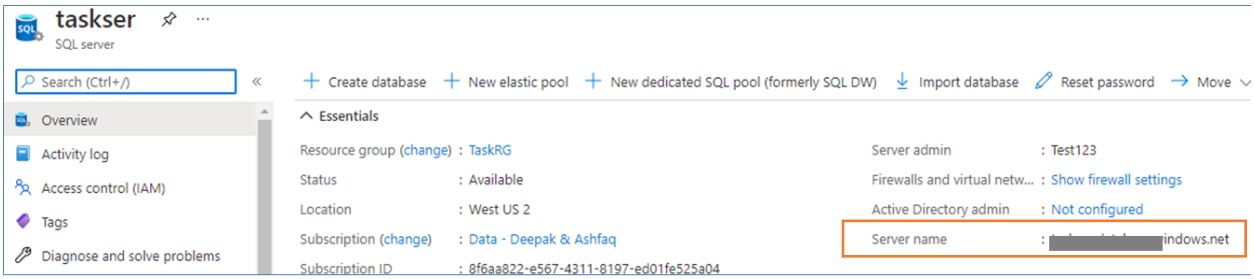


Step4 Select "**Azure"** > "**Azure SQL Database"** and click on "**connect"** Button.

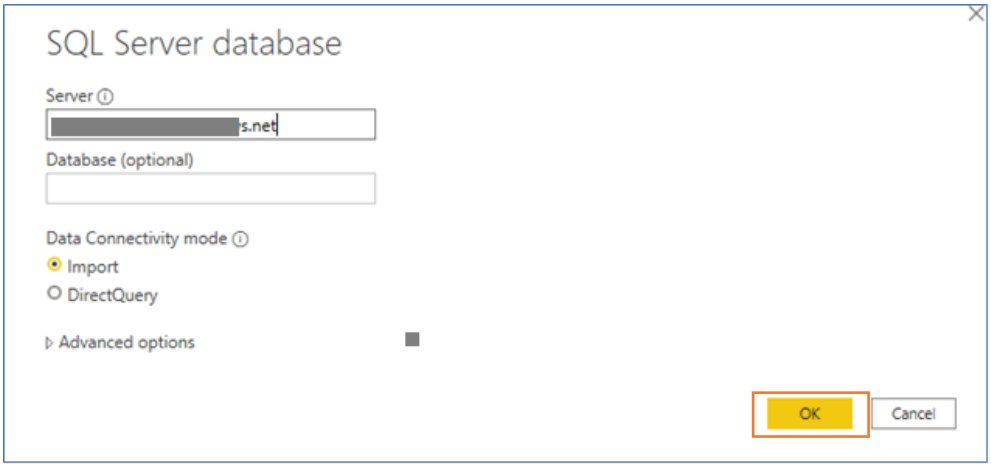


Step5 Get Server name from Azure Portal and enter in Power BI.

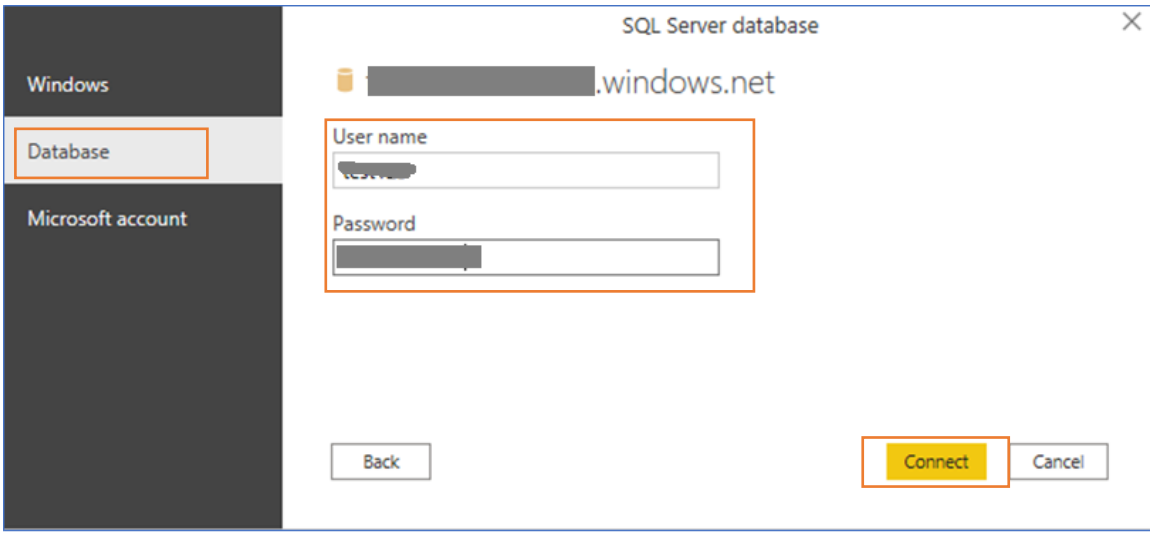
Step5.1 You will get the **Server name** from **Azure Portal** > **Azure SQL server** > **Overview** > **Server name** >



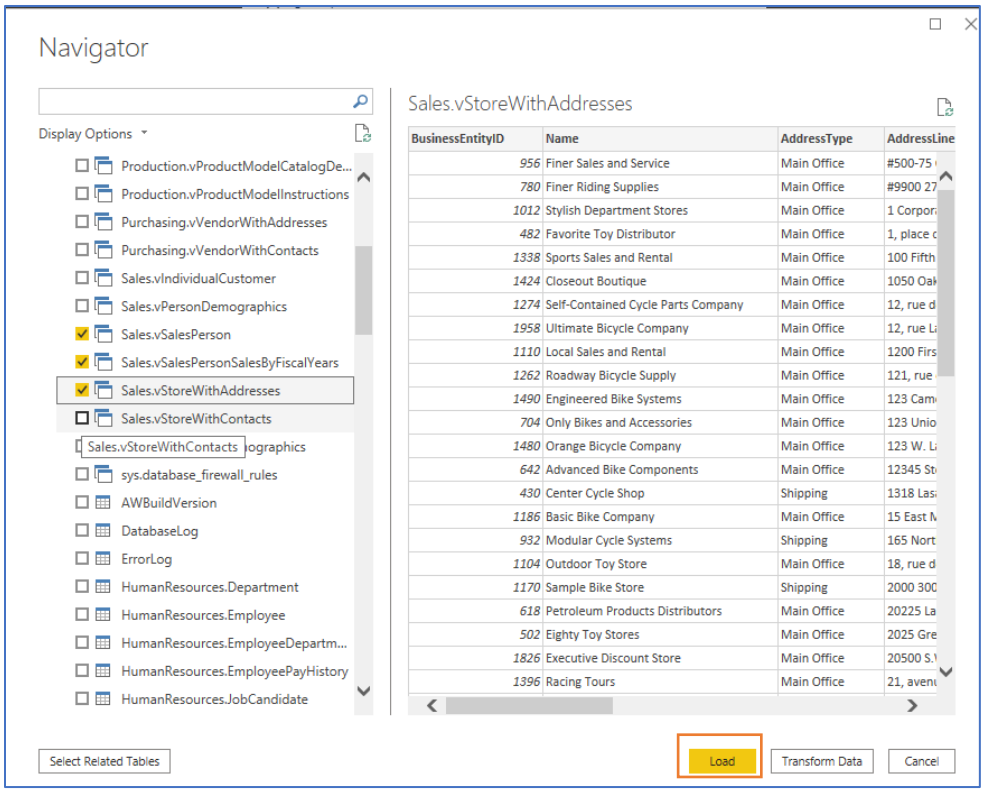
Step5.2 Enter Server name click on "**Ok"** Button.



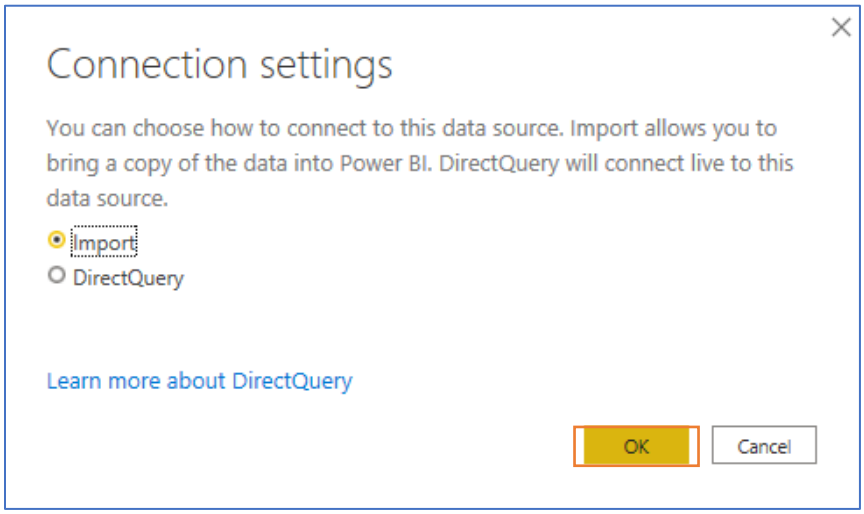
Step6 Select "**Database**" option and add Azure SQL Server **User name**,**Password**. Click on "**Connect"** Button.



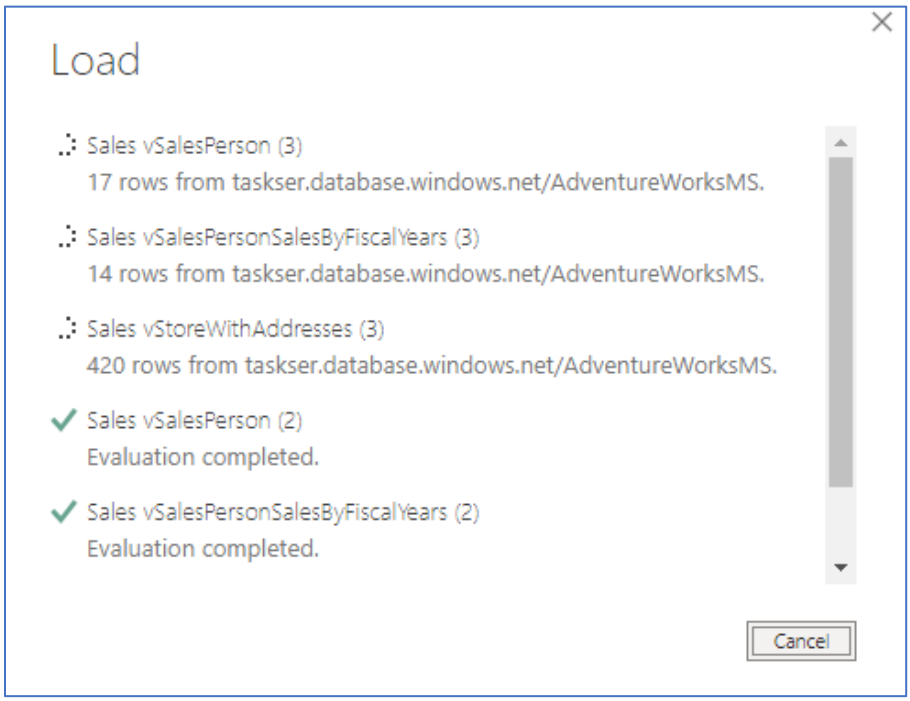
Step7 Select **Database** > Select **table** in it and click on "**Load**" Button.



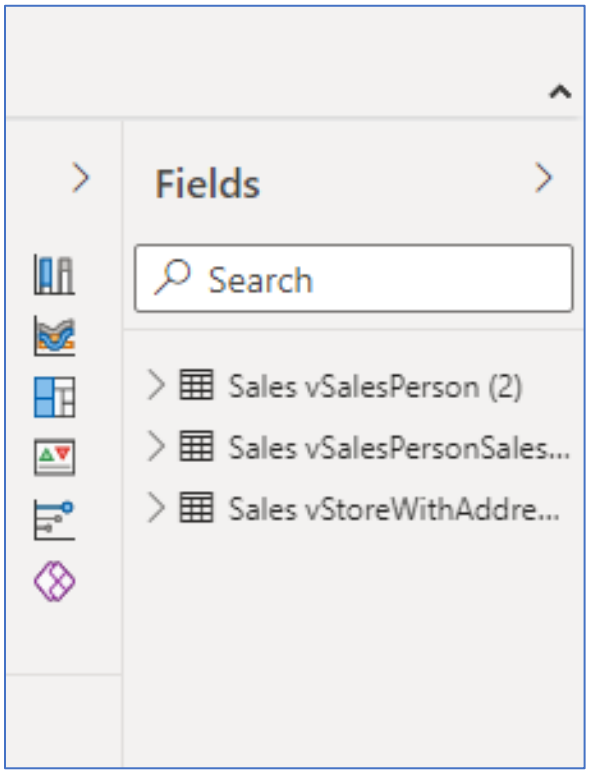
Step8 Select Import Click on "**OK**" Button.



Step9 This Will Lode dataset in Power BI.



Step10 You will See table in "**Fields"** tab In Power BI.



Case 2 This Case is divided in to Following 3 main Steps E,F,G

E Storge account -----→ F. Azure SQLVM-----→ G. Power Bi Desktop.

In step **E** we will create a Storge account and configure it with **data lake gen 2** then create a container and upload a .**bak** file in it.

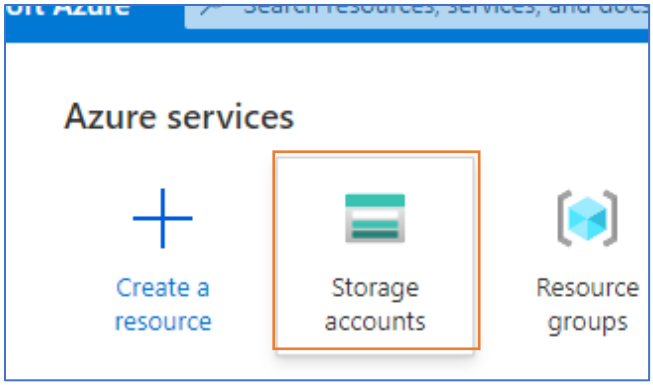
In Step **F** we will create an Azure SQL-VM using azure portal and connect that to **MSSM** and Restore bak file in Azure SQL-VM .

In Step **G** we will connect the Azure SQL-VM to Power BI Desktop.

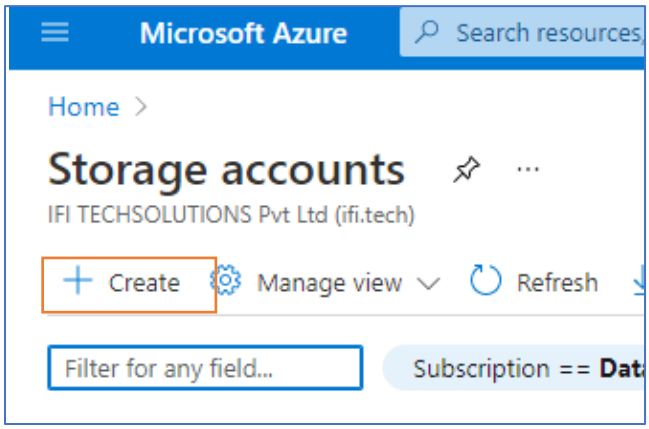
E. Storage account Gen2 and Upload a .bak file in a Container.

In the following Steps we will Create - Storage Account **Data Lake Gen2** > **Containe**r > **Upload** "sample. bak".

Step1 Select a Storage Account. Note: <**Create using Azure Portal**>.



Step2 Click on **"+ Create** "Button.

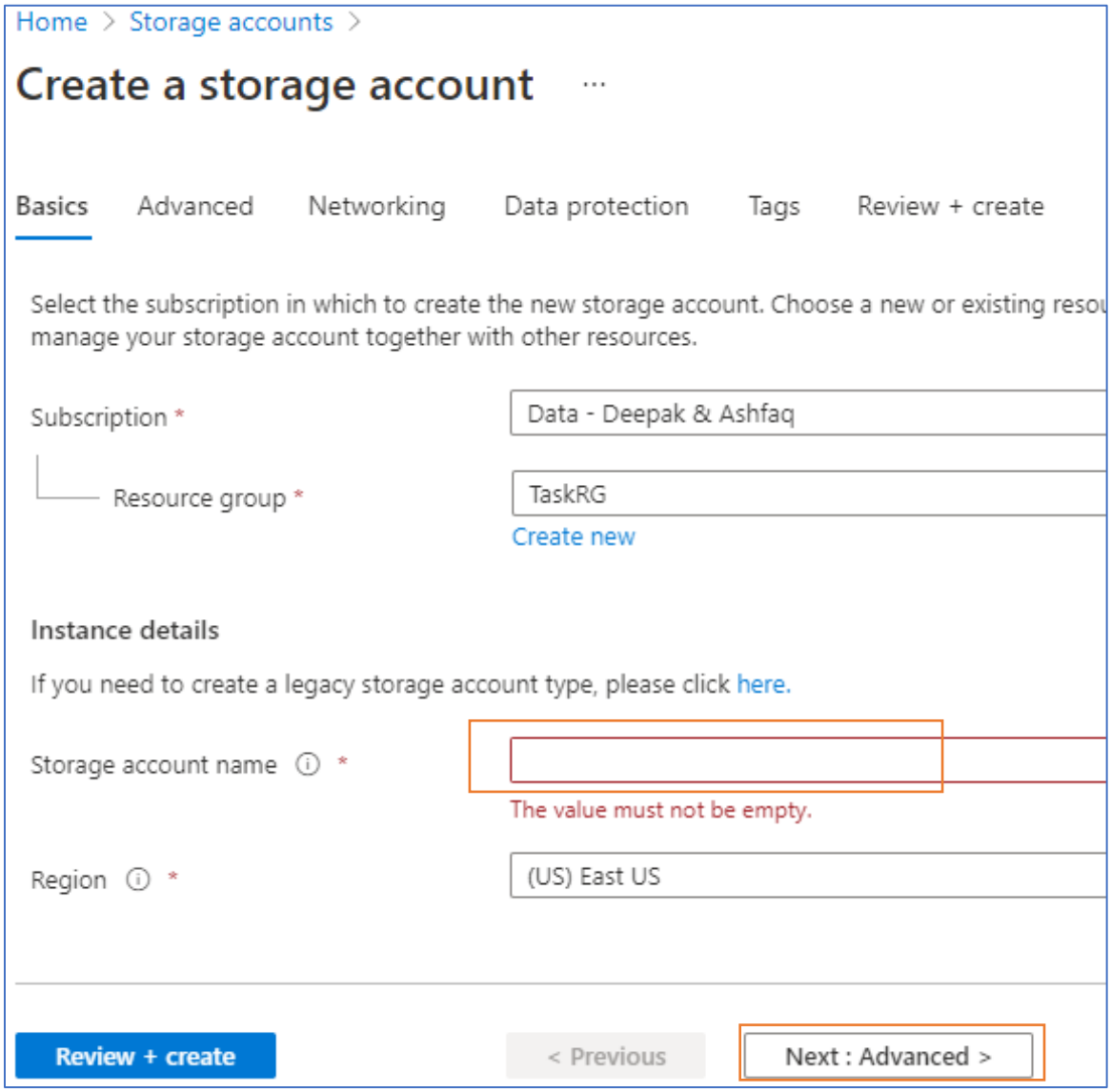


Step3 Enter data as shown below and click "**Next: Advanced**" Button.

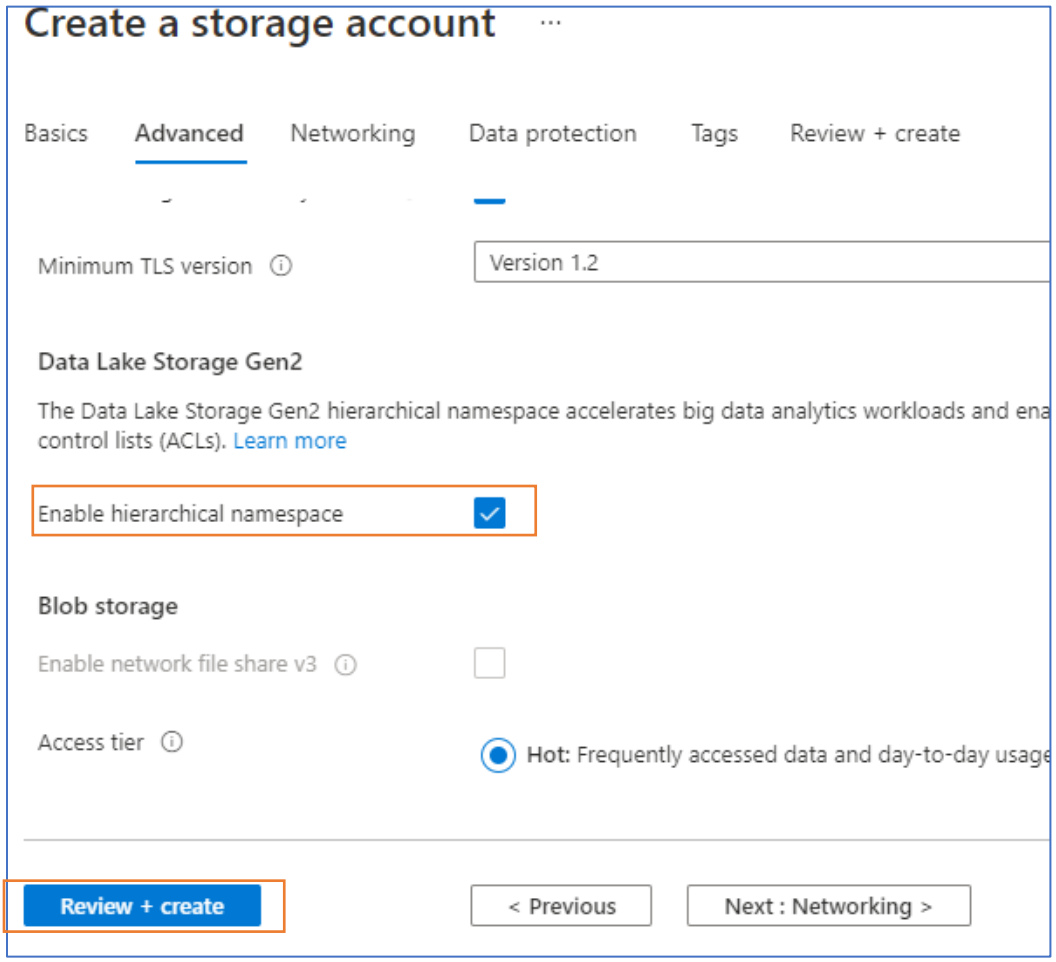
Subscription:<Your azure Subscription select from Drop-Down>

Resource group:<Select from Drop-Down / Create a new one>

Storage account name:<Give any Name for Storage account>

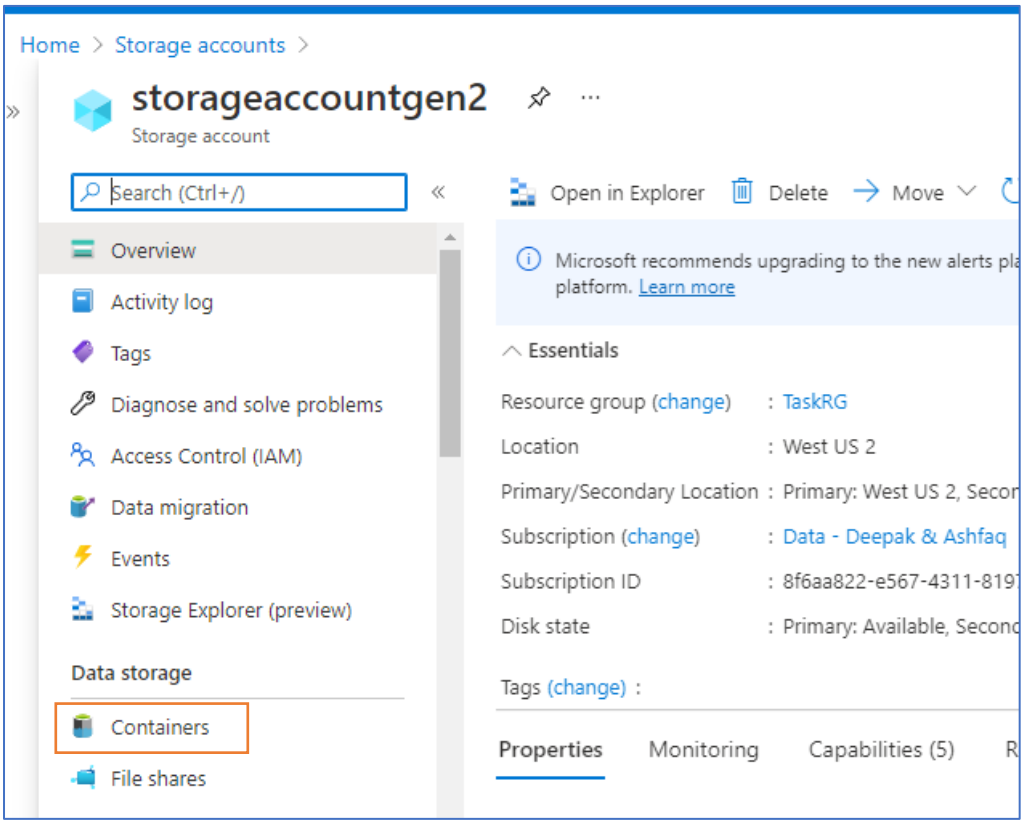


Step4 Click on "**Enable Hierarchical namespace**" Check box < Note: This will Configure this storage account as "Data Lake Gen 2"> Click on "**Review + Create**" Button.

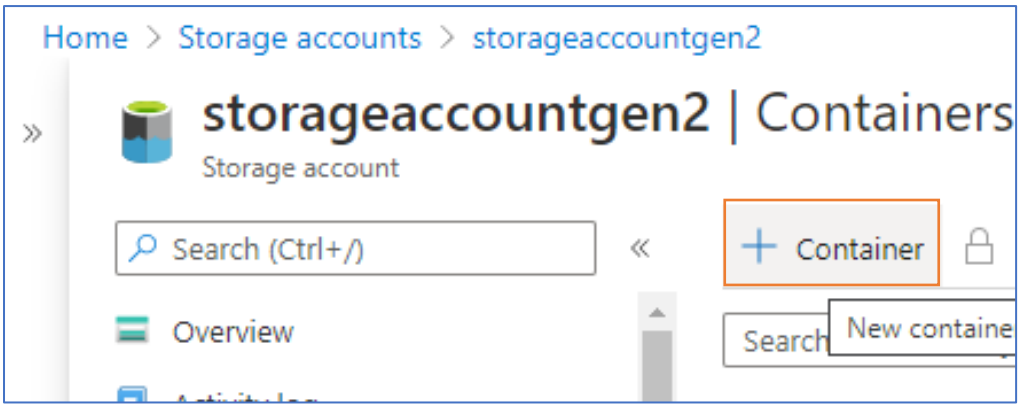


Step5 Upload "**Sample.bak**" in your Storage Account.

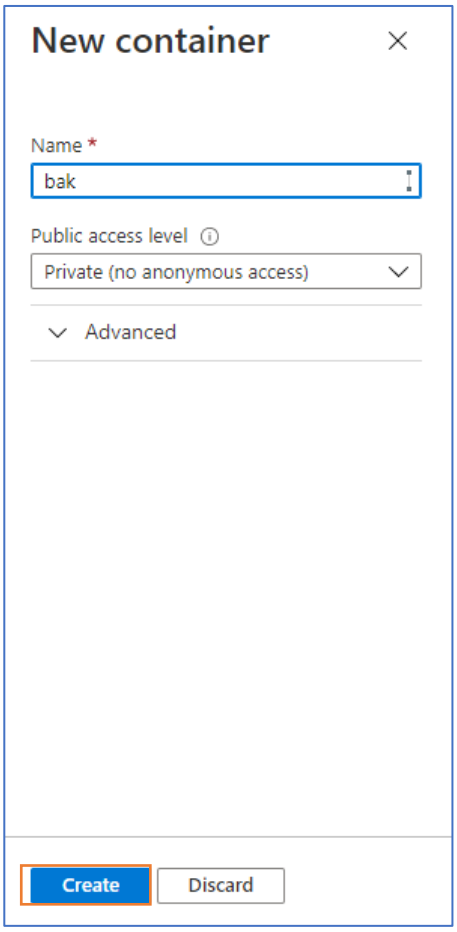
Step5.1 open Storage account Click on "**Containers**"



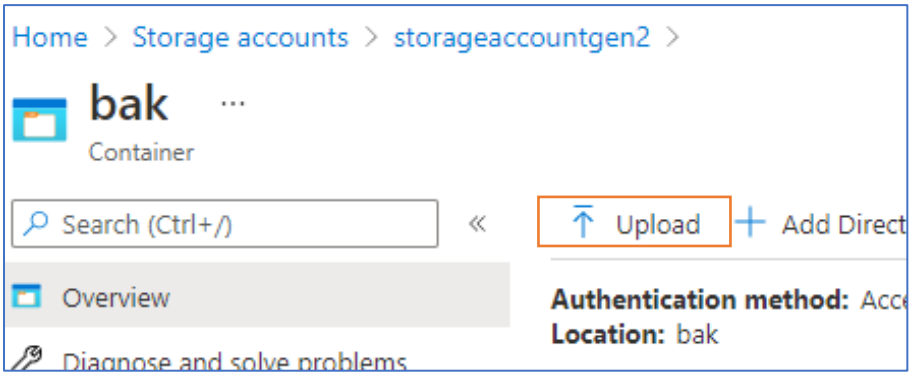
Step5.2 Click on **"+ Container**" to create a New Container.



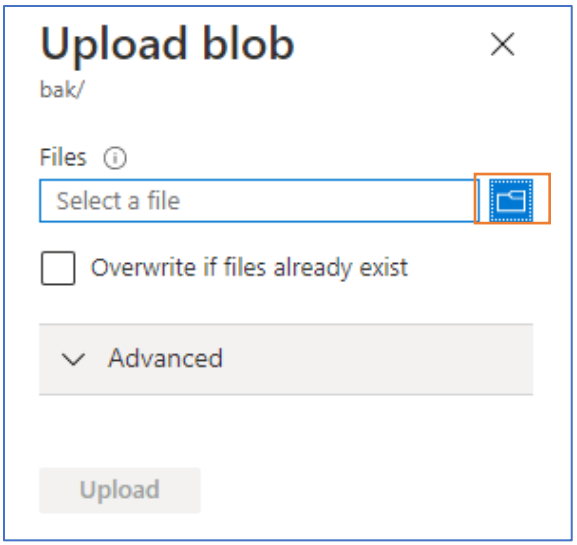
Step5.3 Enter a name <**bak**> of a Container and click on "**Create**" button



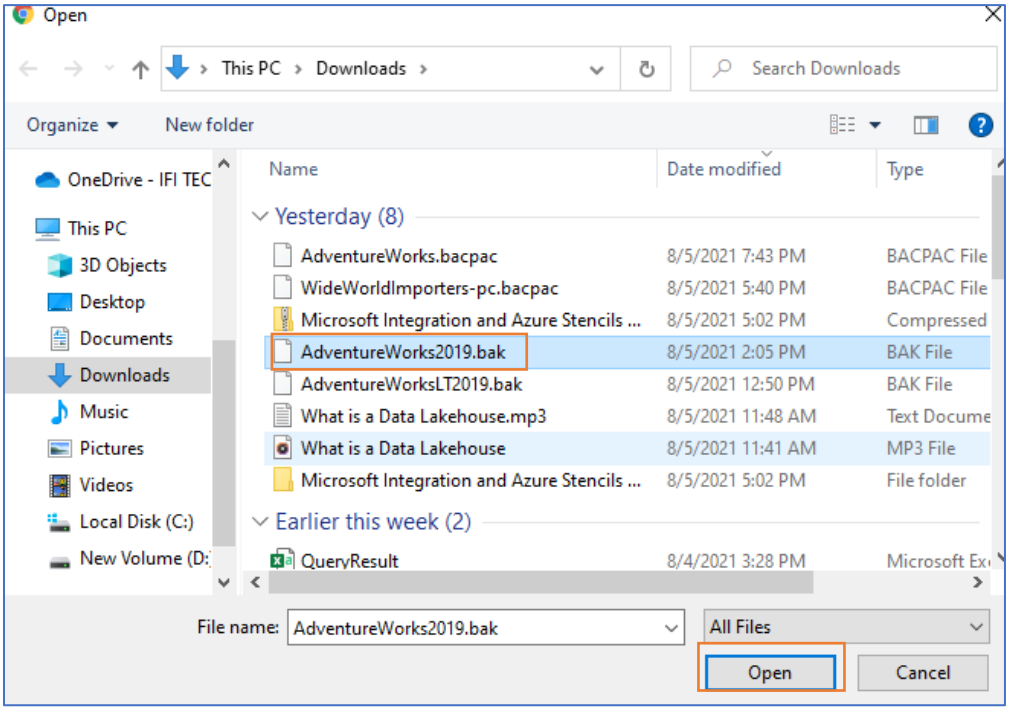
Step5.4 Open "bacpac Container" Click on "upload" Button.



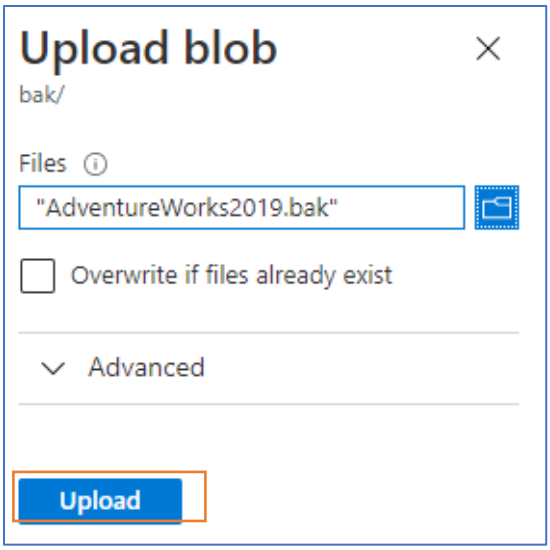
Step5.5 Click on File icon .



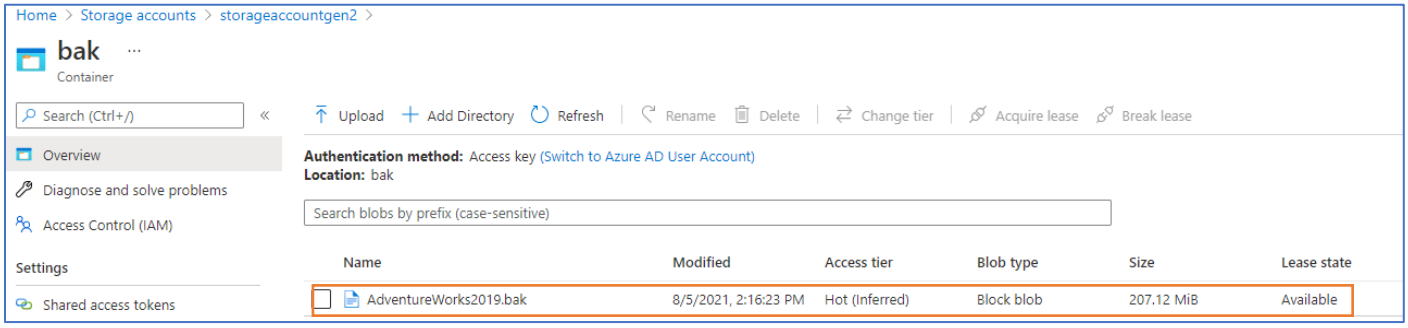
Step5.6 Select a "**datafile.bak**" file from Local System and Click on "**Open"** Button.



Step5.7 Click on "**Uplode**" Button.

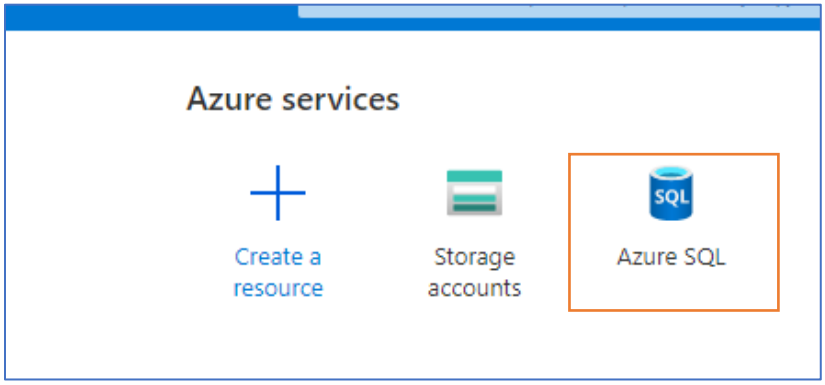


Step5.8 Check The "**Lease State**" is Available .

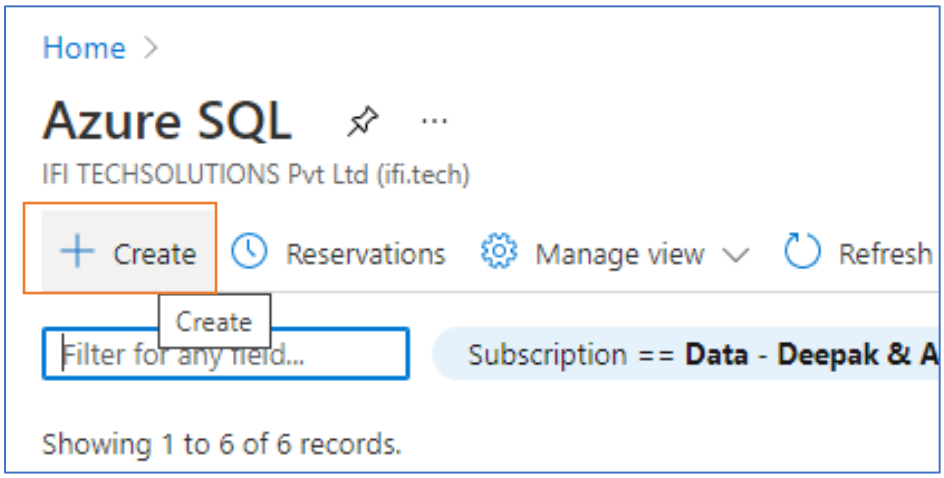


F. Create an Azure SQL-VM using azure portal and connect that to MSSM and Restore bak file in Azure SQL-VM.

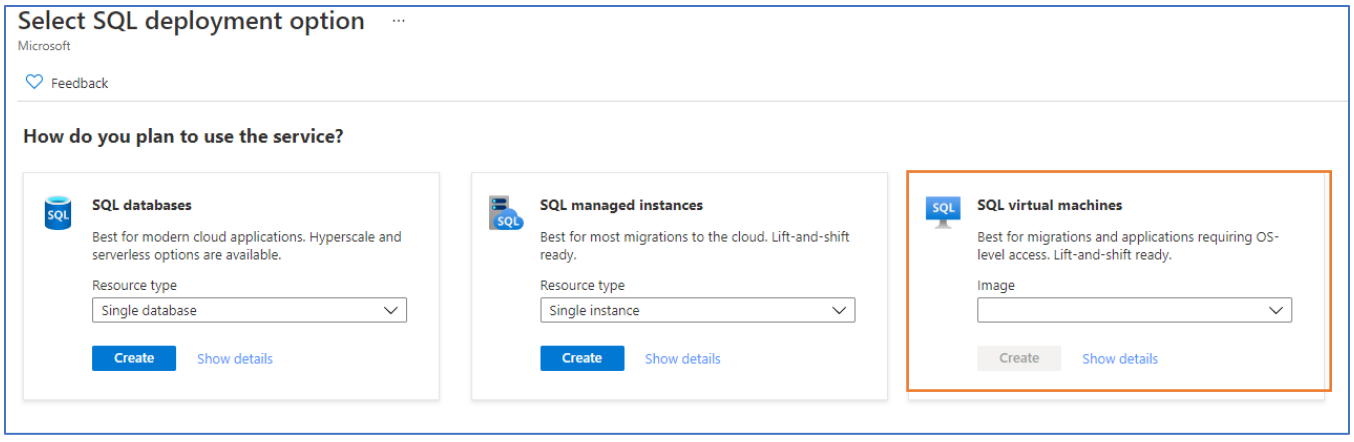
Step1 Open azure Portal and select **Azure SQL** to create Azure SQL-VM.



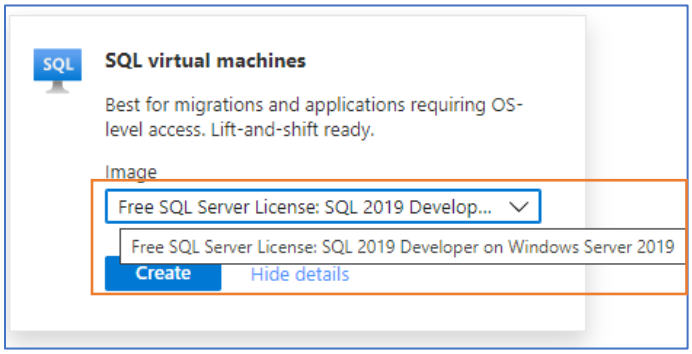
Step2 Click on "**+ Create"** Button.



Step3 Select **"SQL Virtual machines".**



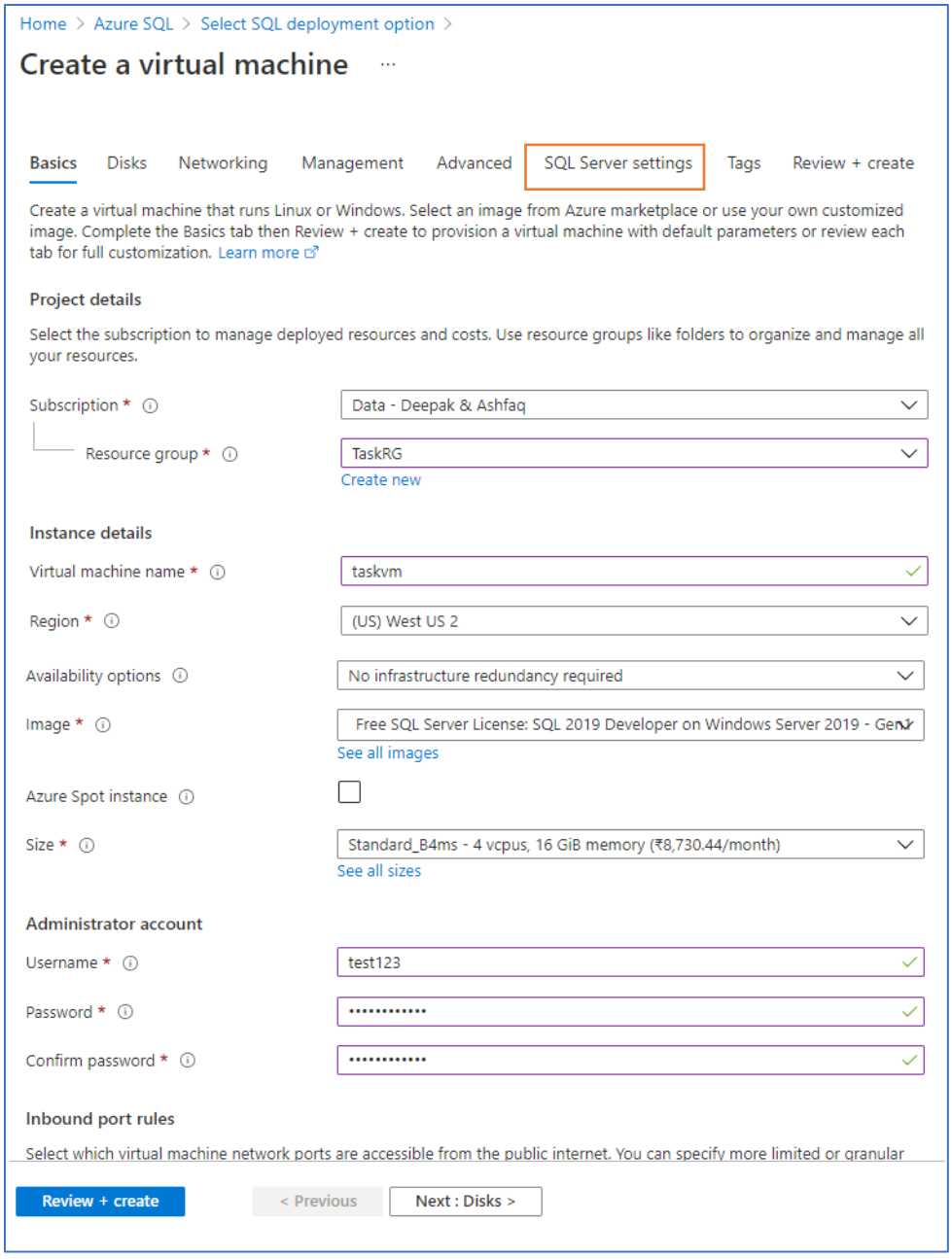
Step4 Select **Image** from Drop-down "**SQL 2019 Developer**". And Click on "**Create"** Button.



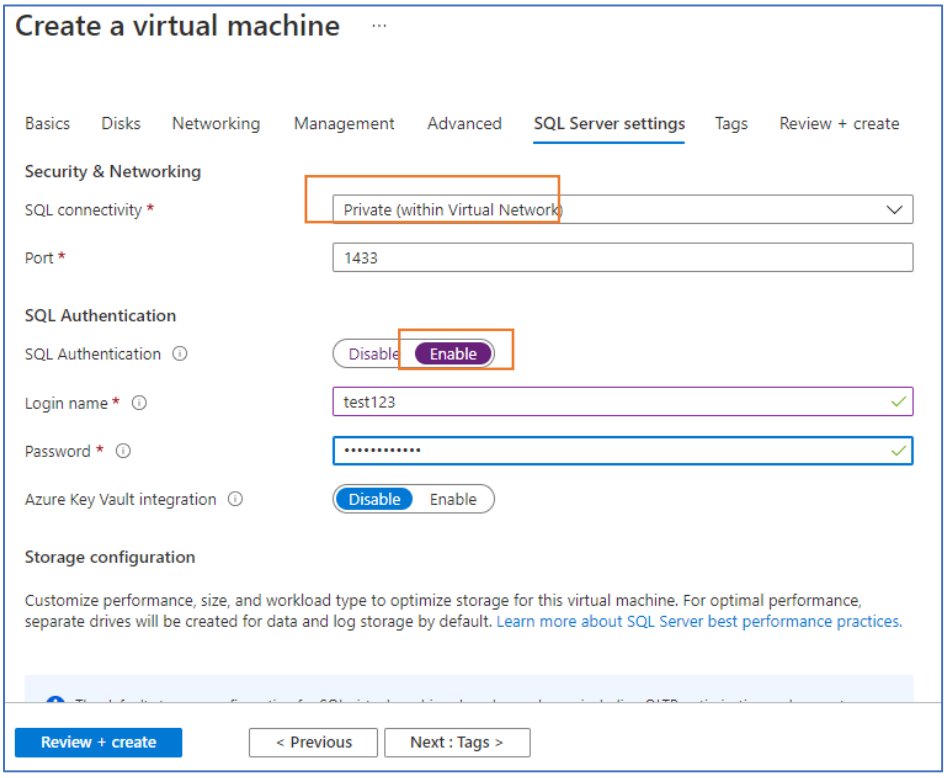
Step5 Configure VM

Step5.1 Enter Below data and click on "**SQL Server Settings**" tab.

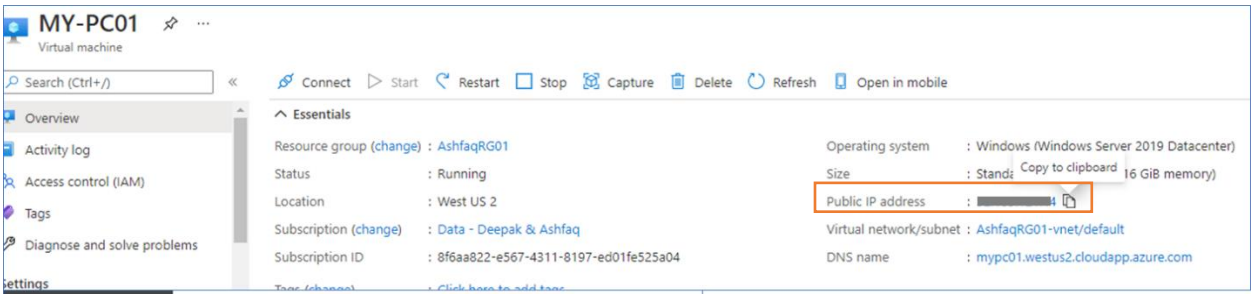
Virtual machine name: <Give VM name >
Image: <Select 2019 Developer>
Size: <Select VM Size based on your requirement>
Username: <Give VM User Log in name e.g.: "test123">
Password :<password>
Confirm password:<same as entered in password>



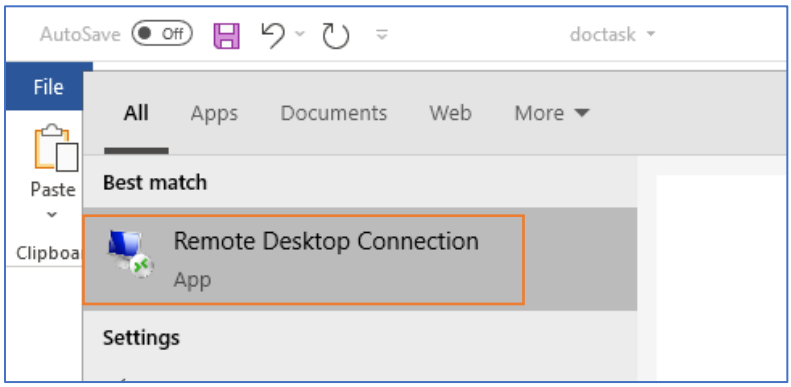
Step 5.2 Select option same as given below.



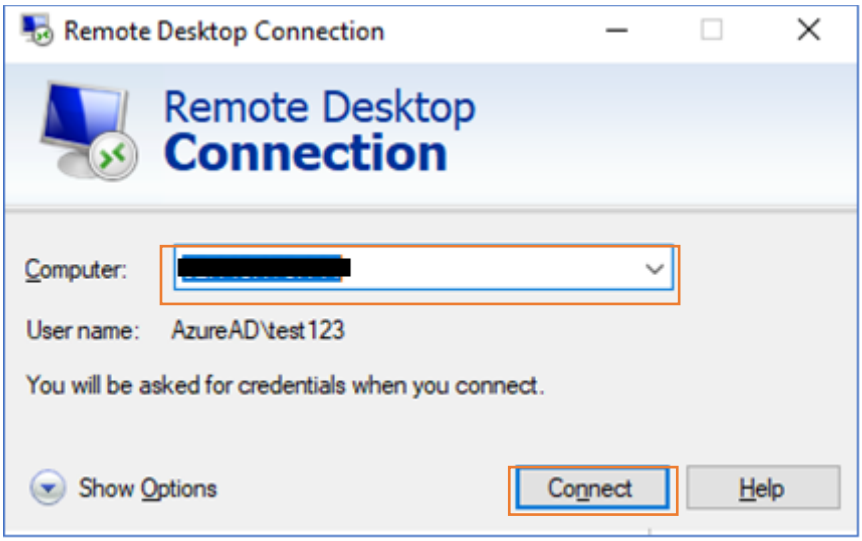
Step6 Copy Ip address to open VM in Remote Desktop.



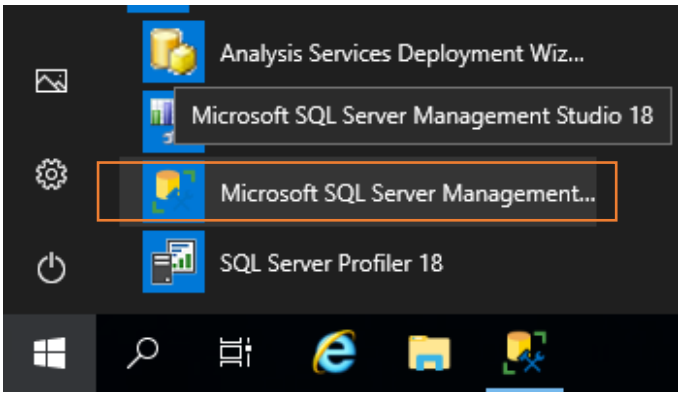
Step7 Open Remote Desktop.



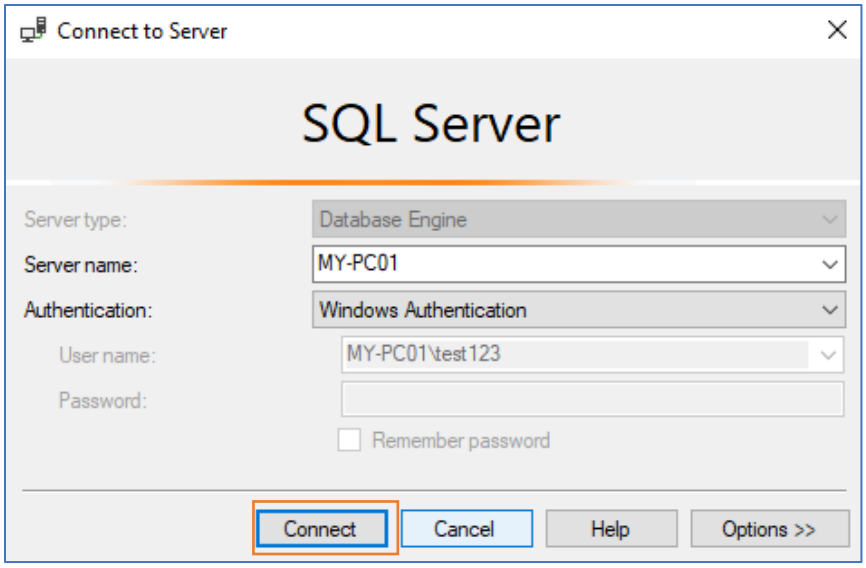
Step8 Enter Ip address and Click on **Connect** Button.



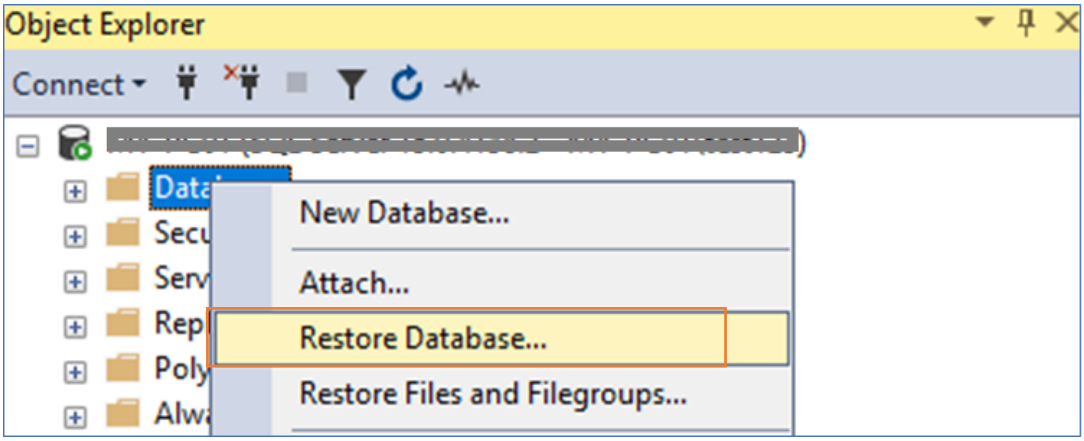
Step9 Open MSSM in VM**.**



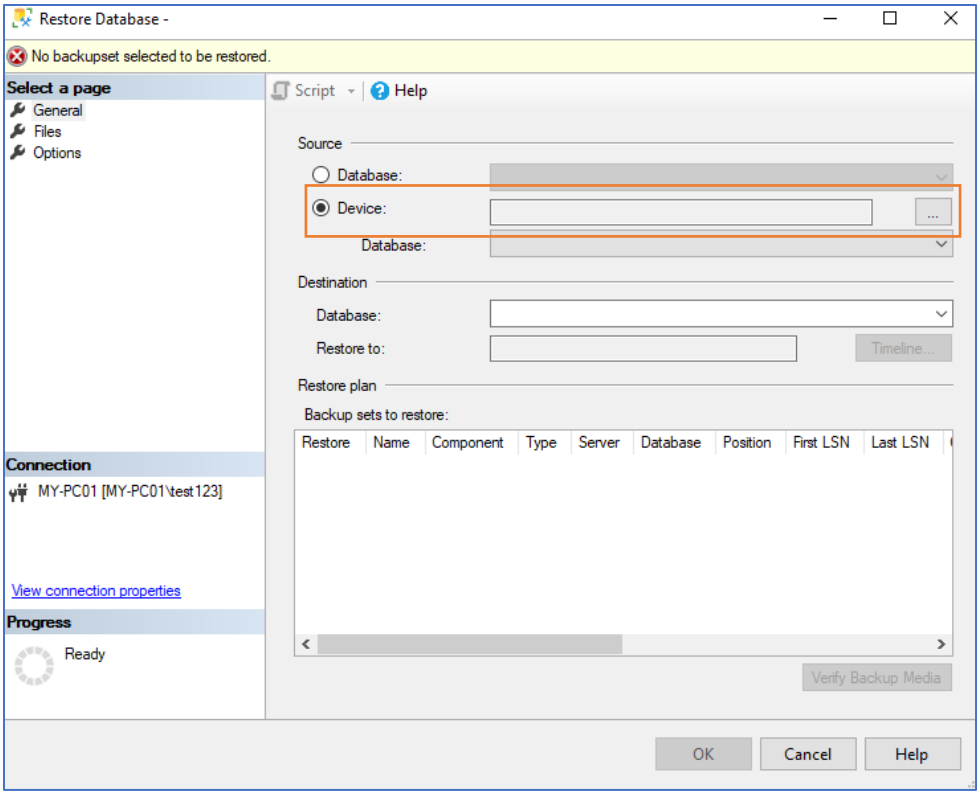
Step10 Click on **Connect** Button.



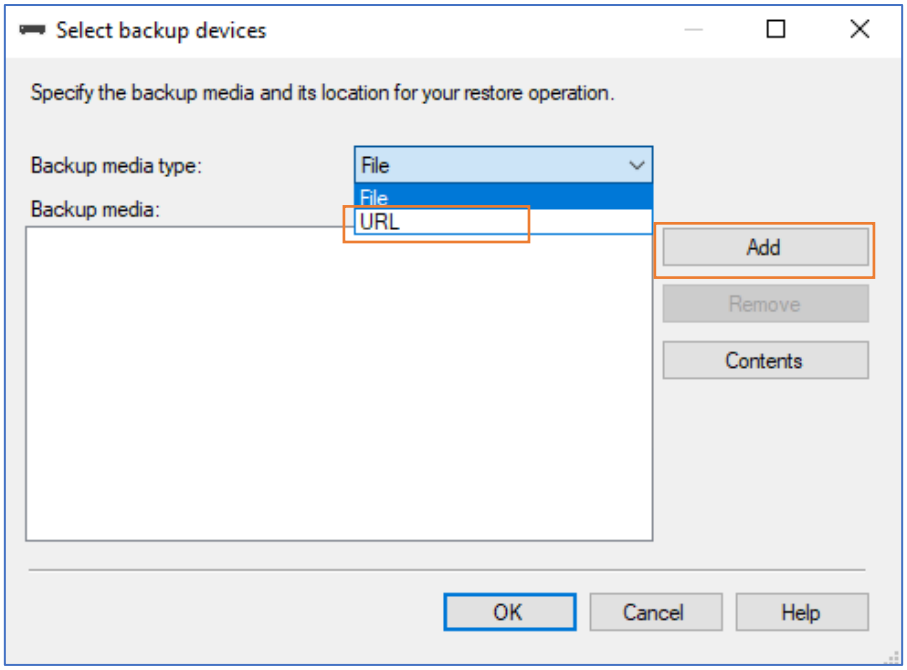
Step11 Right Click on **Databases** and select **Restore Database…**



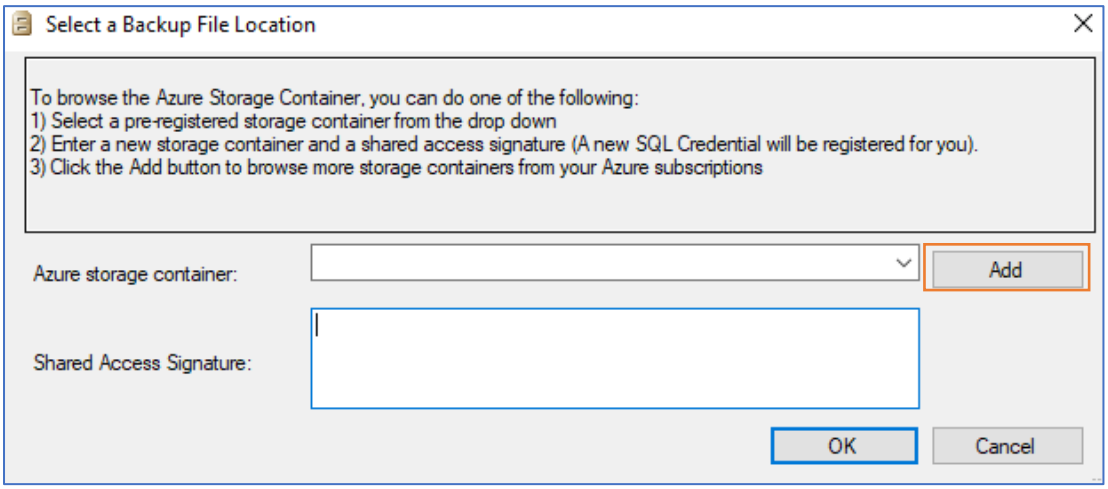
Step11.1 Select **Device** Option and Click on 3 Dot .



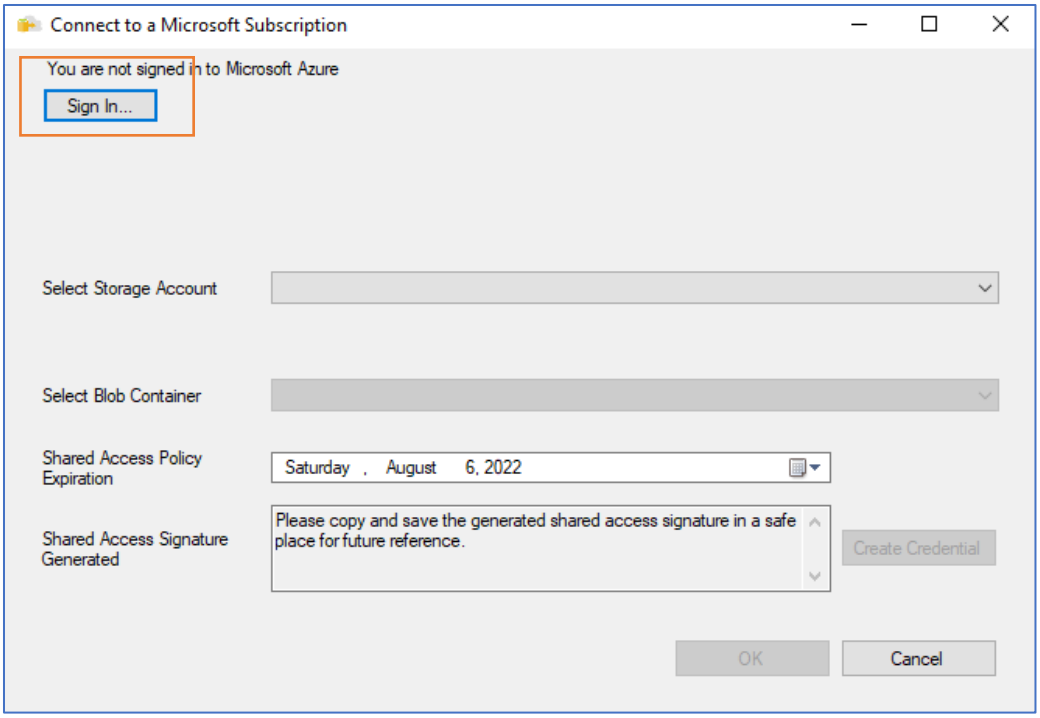
Step11.2 Select **URL** From **Backup media type:** and Click on **Add** Button.



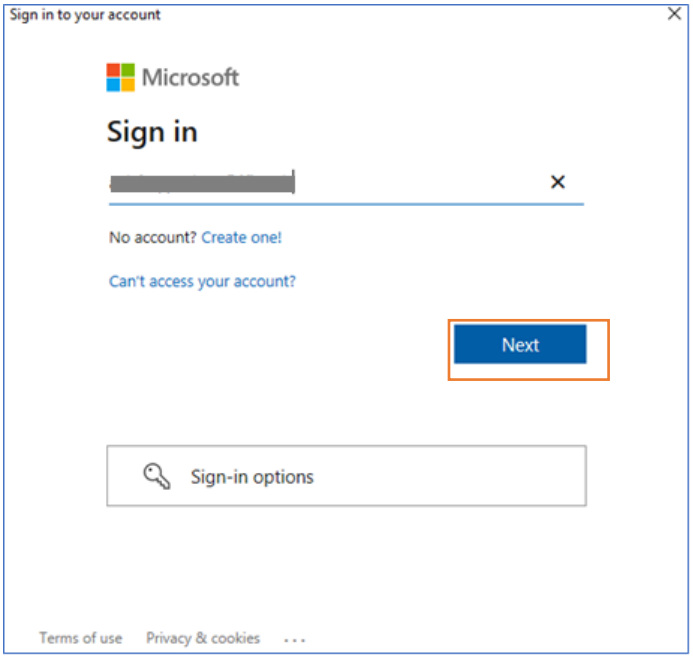
Step11.3 Click on **Add** Button.



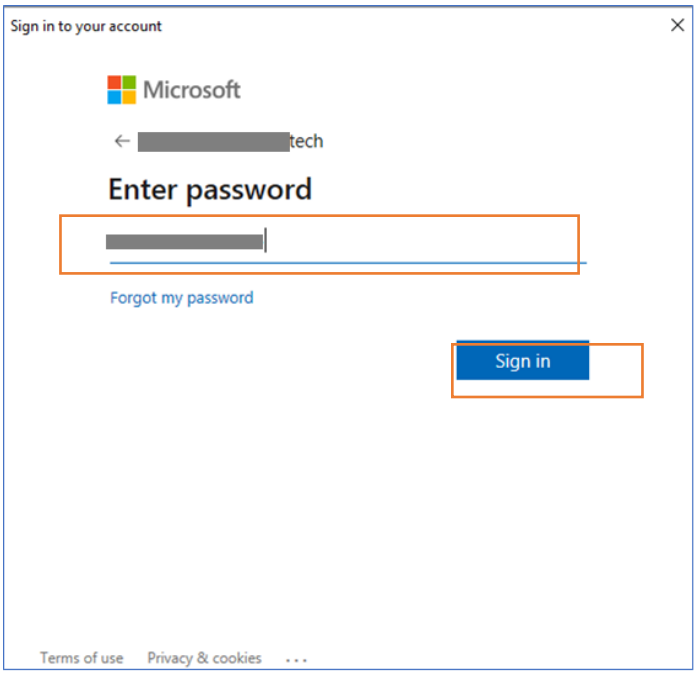
Step11.4 Click on "**Sign in**" Button.



Step11.5 Enter Email address.

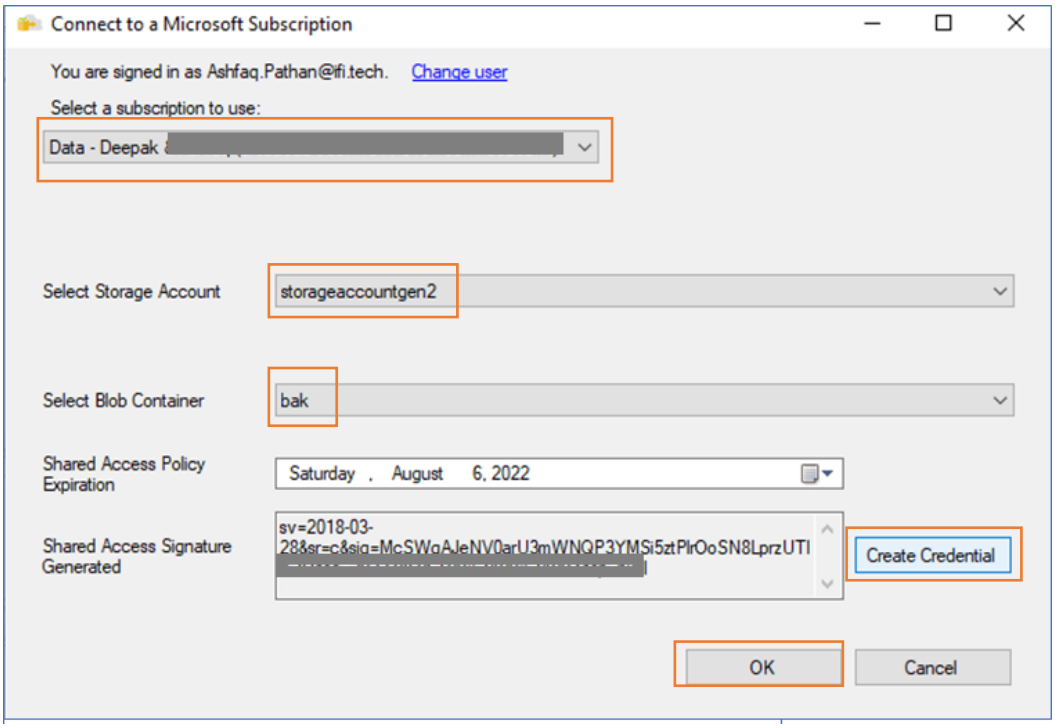


Step11.6 Enter password and Click on **Sign in** Button

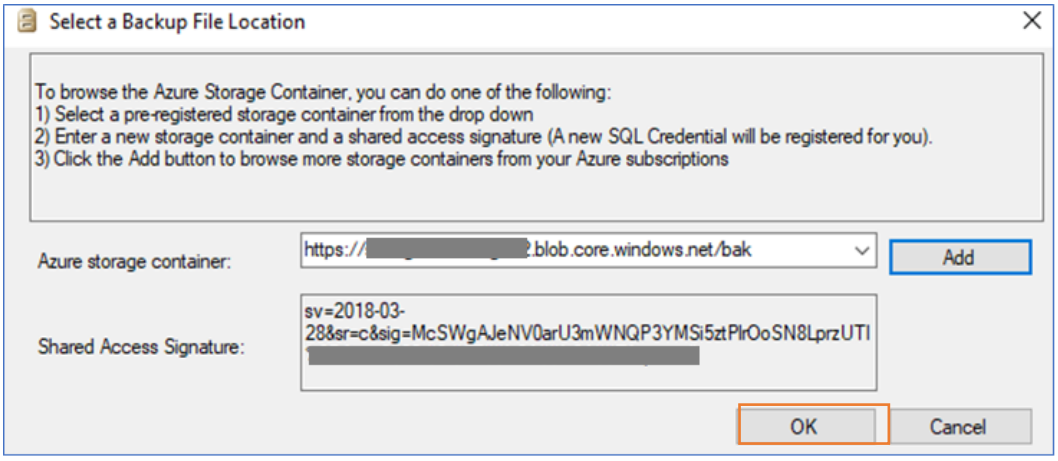


Step11.7 Enter data as given below.

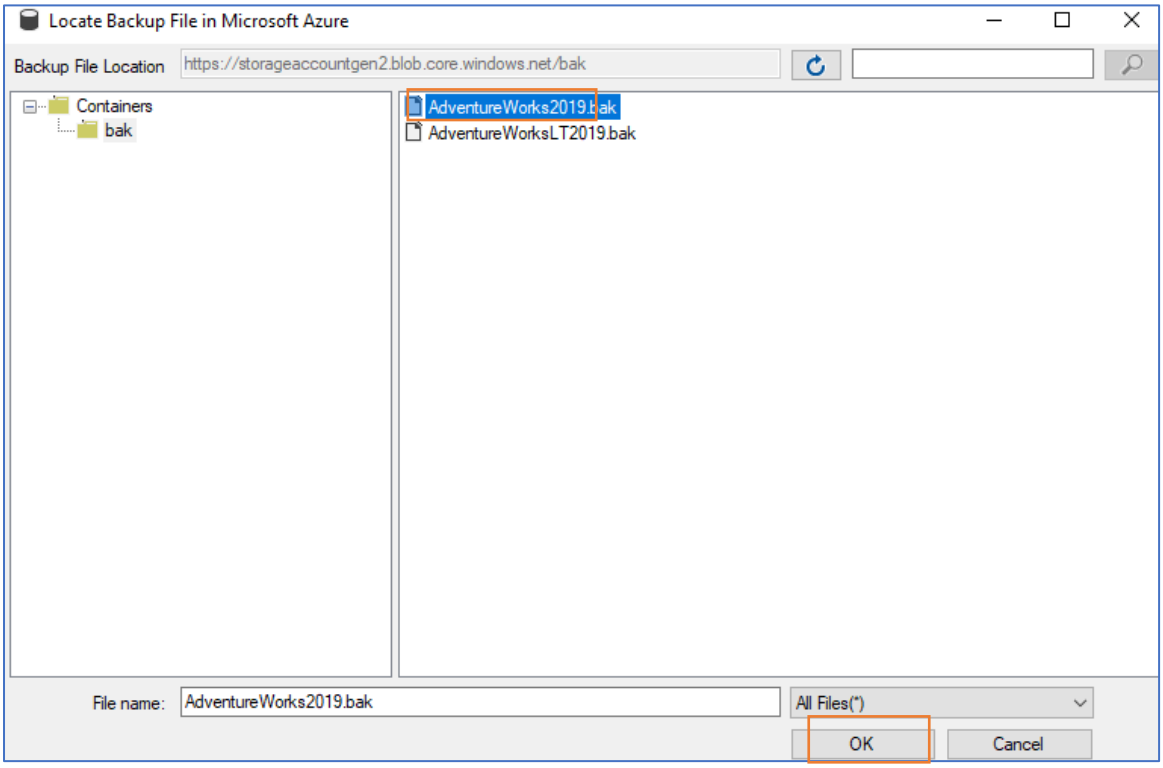
Select a Subscription to use:<select from drop-down>
Select Storage Account: <select Storage account from drop-down>
Select Blob Container:<Select Container from drop-down>
Click on **Create Credential** button and then click on **Ok** Button.



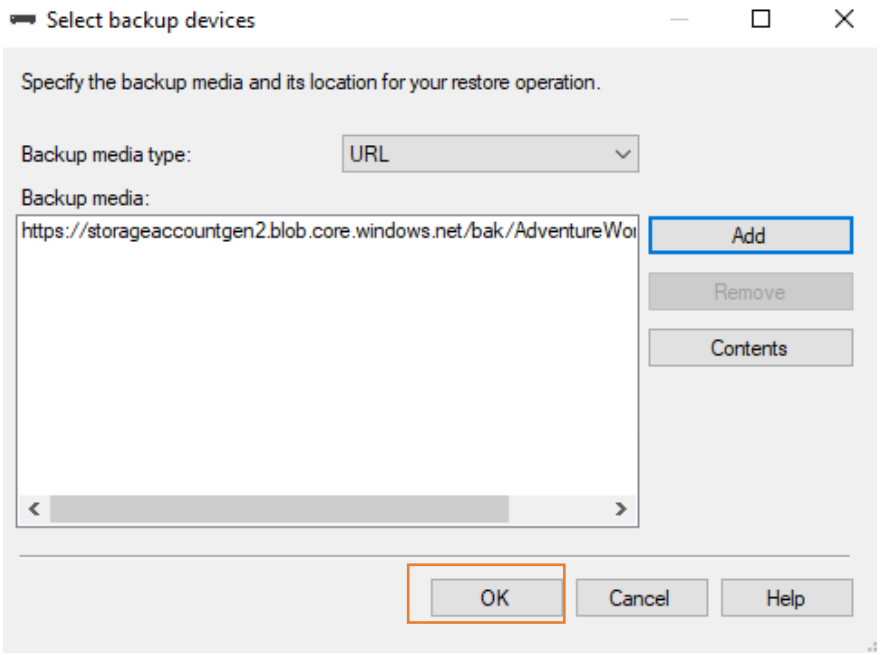
Step11.8 Click on **OK** Button**.**



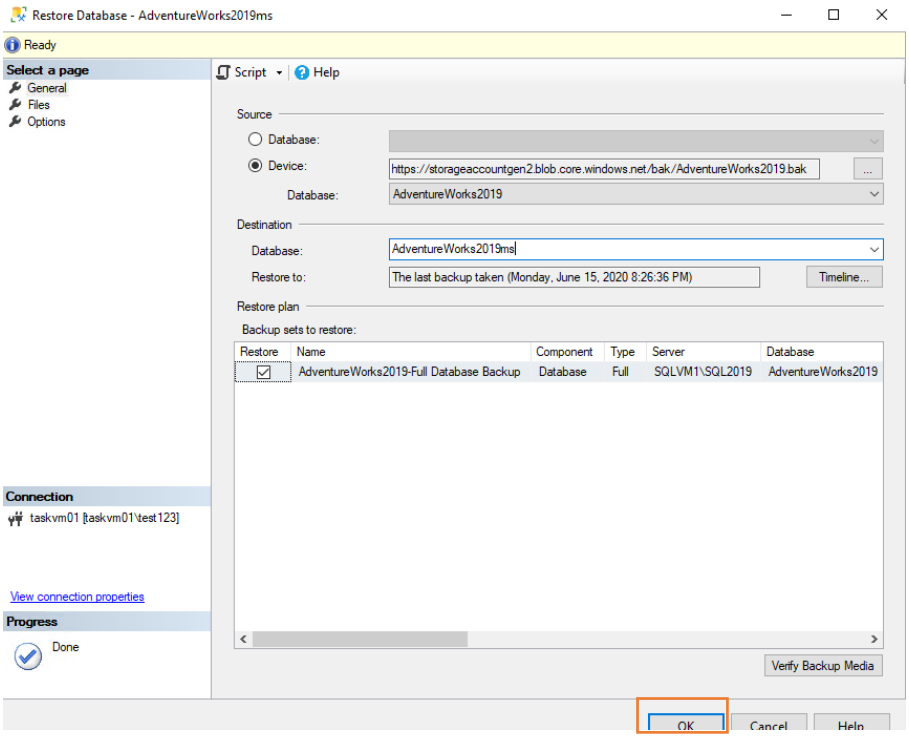
Step11.9 Select **.bak** file from bak Container and click on **ok** button.



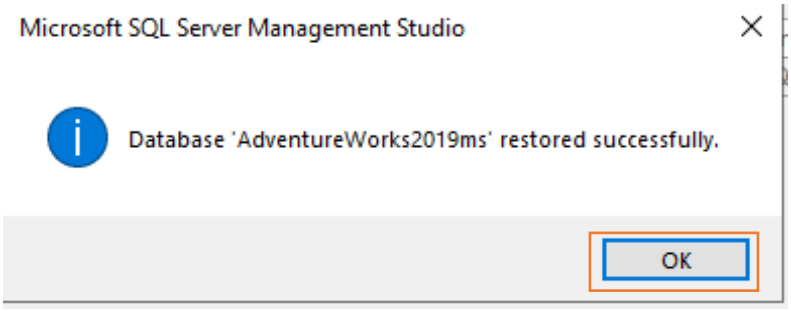
Step11.10 Click on **Ok** Button.



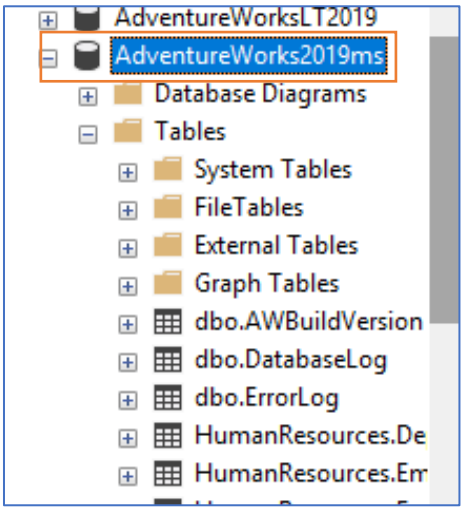
Step11.11 Click on Ok Button.



Step11.12 Click on Ok Button.

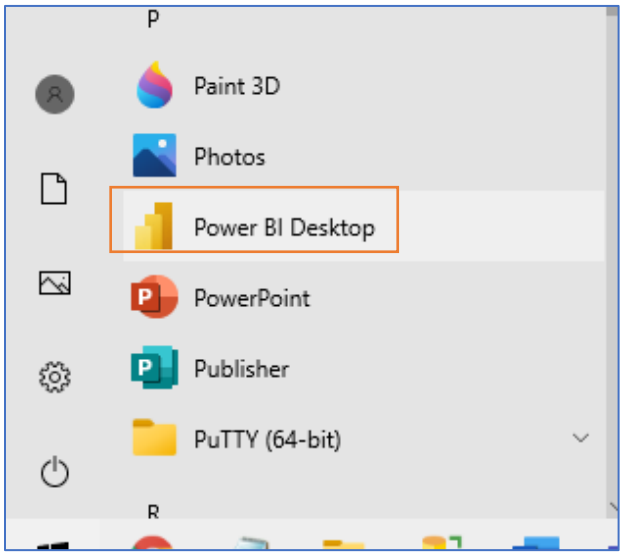


Step11.13 Database restore Done properly as we can see tables in the table folder.

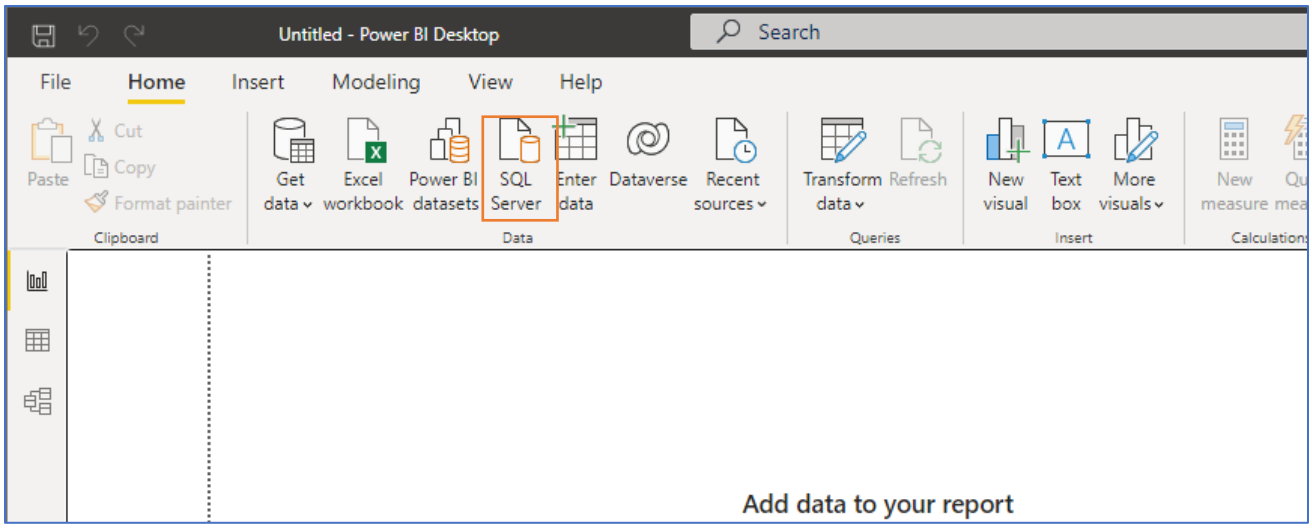


G we will connect the Azure SQL-VM database to Power BI Desktop.

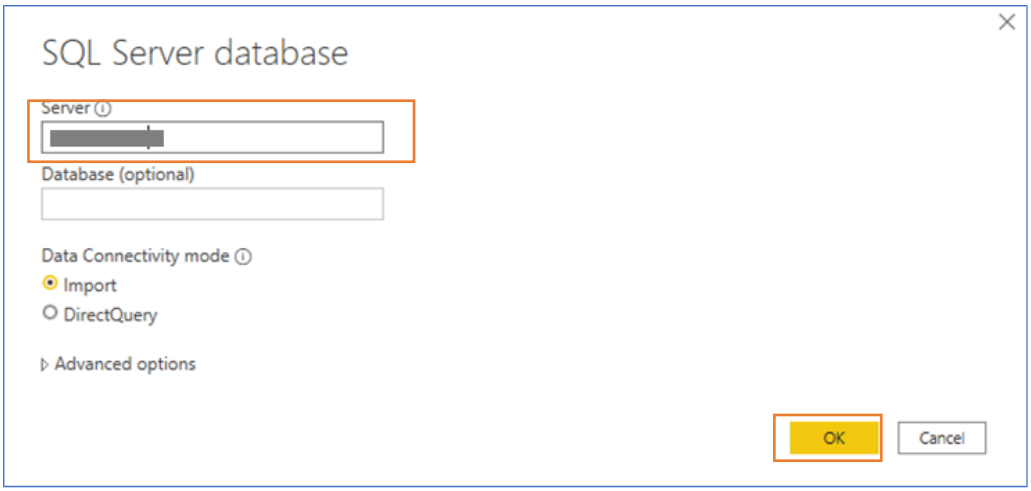
Step1 Open Power BI Desktop.



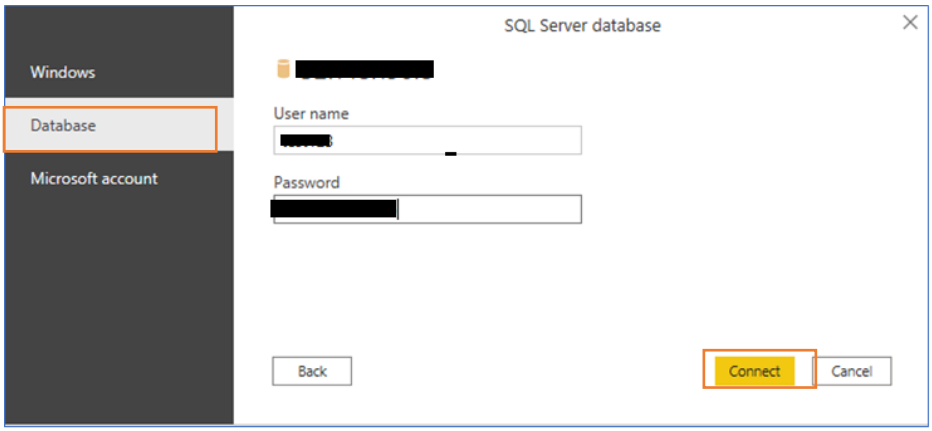
Step2 Click on "**SQL Server**" from "**Home**" Tab.



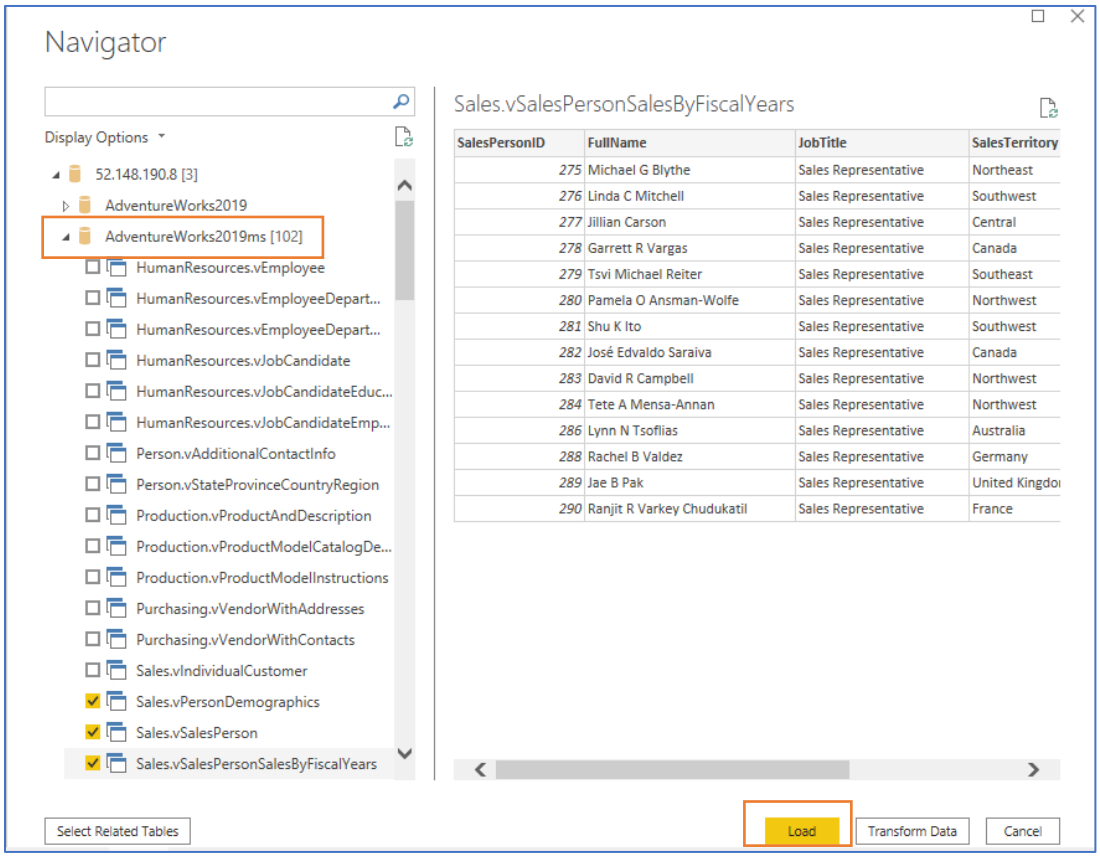
Step3 Enter VM IP Address in Server text field. and Click on **OK** Button.



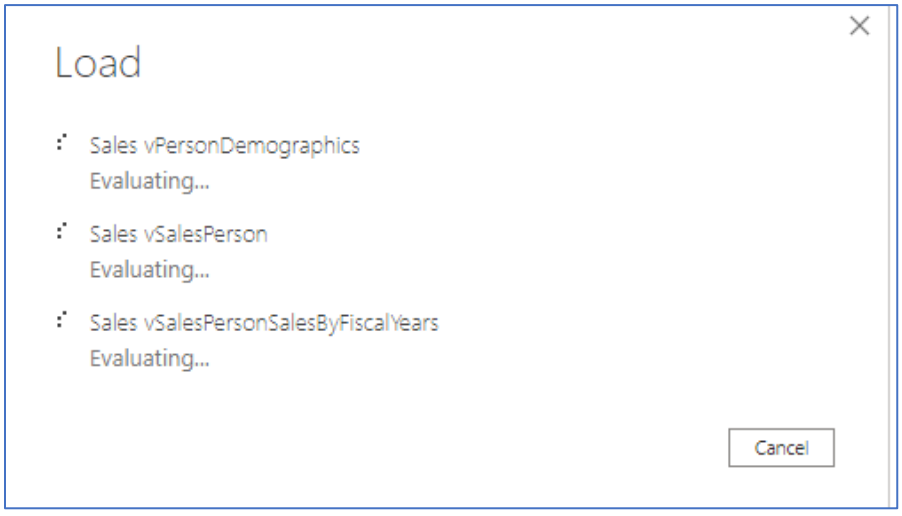
Step4 Click on **Database** and enter VM **User id** and **Password.** and Click on **Connect** Button**.**



Step5 Select **Database** and **Tables** and Click on **Load** Button.



Step6 This Will Load Tables in Power BI.



Step7 You can See **Table** in **Fields** in Power BI.