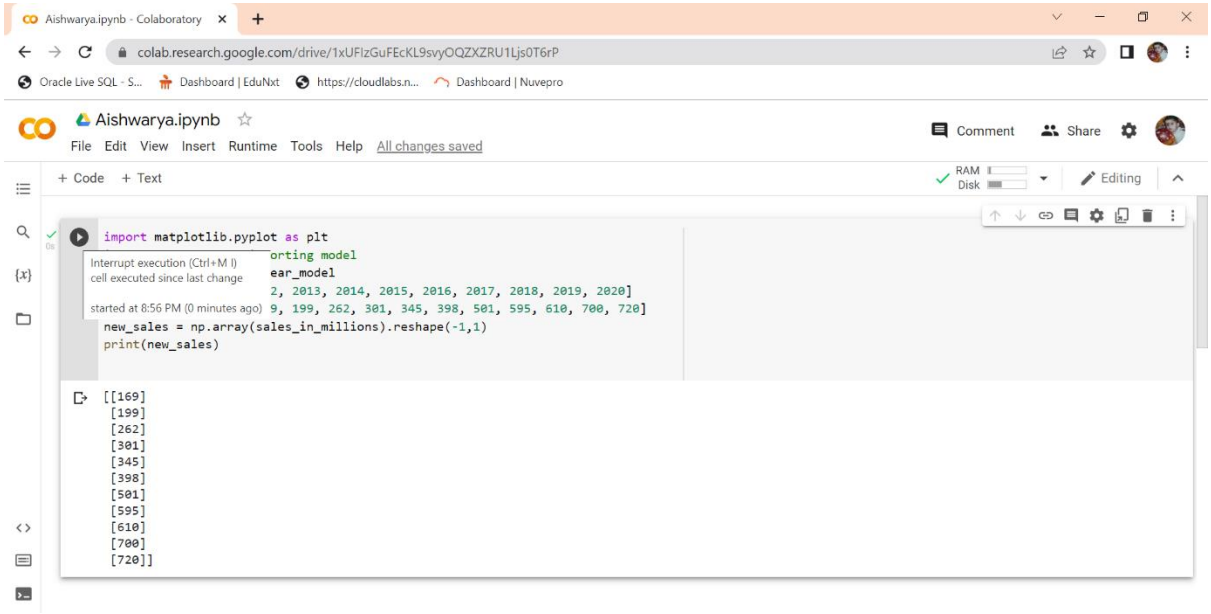
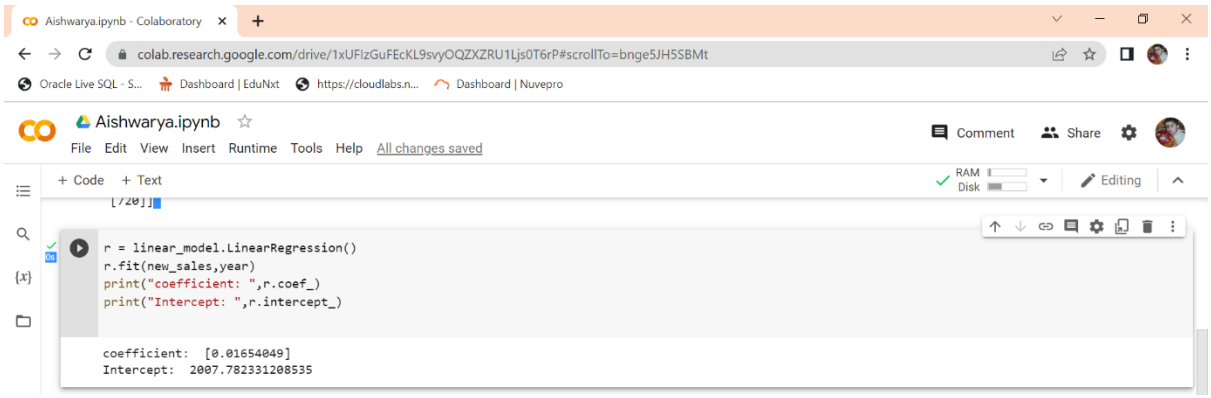
NAME – BHOGADI NAGA ISWARYA LAKSHM COMPANY – DXC TECHNOLOGY

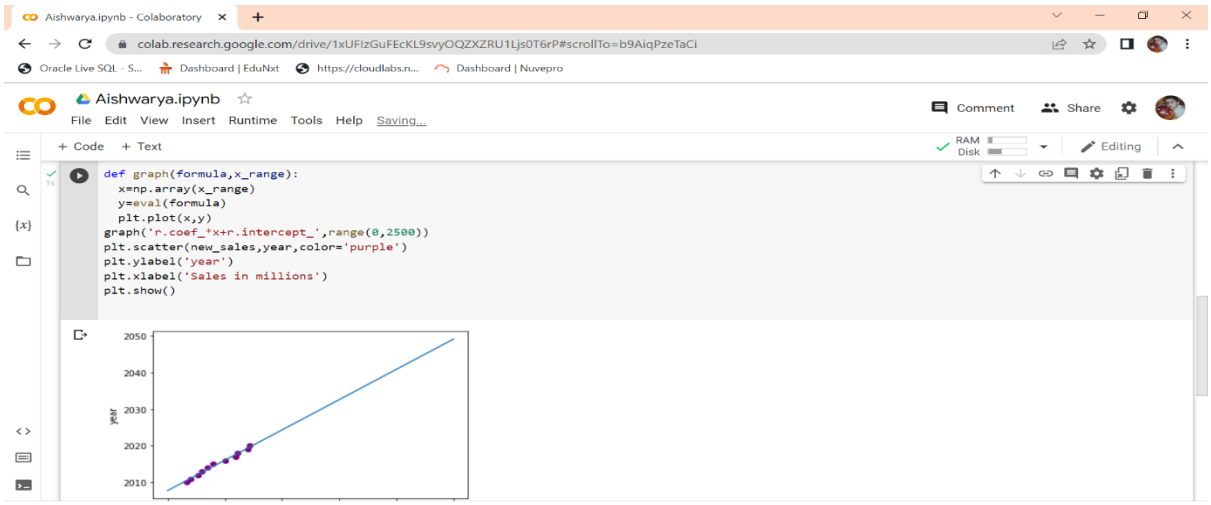
BATCH – DXC-262-ANALYTICS-B12-AZUR SUBMISSION DATE – 17/06/2022

1. **Write a python program to predict car sales of a company by using below data,**

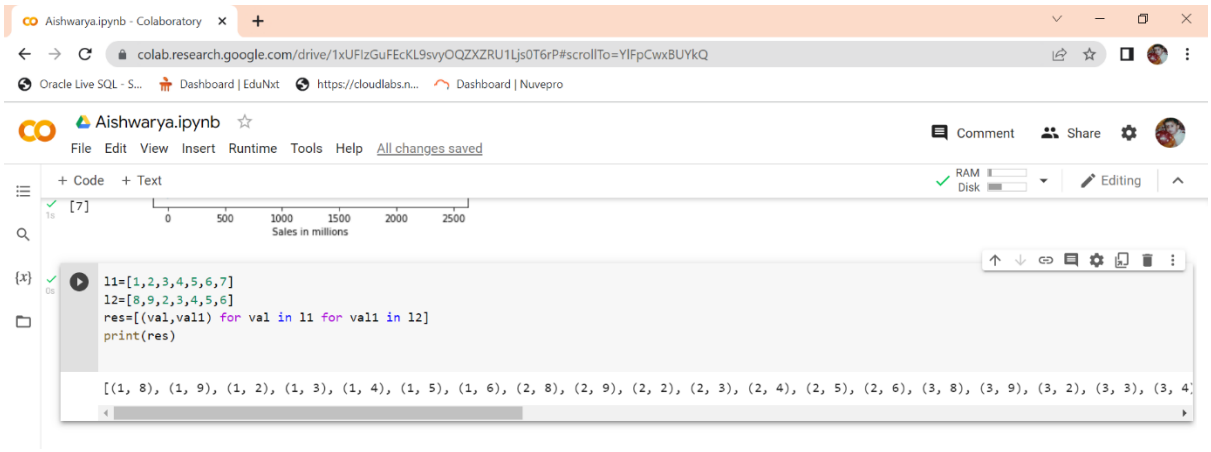
   year : 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020
   Sales in millions: 169 199 262 301 345 398 501 595 610 700 720
   display outcome using linear regression method.





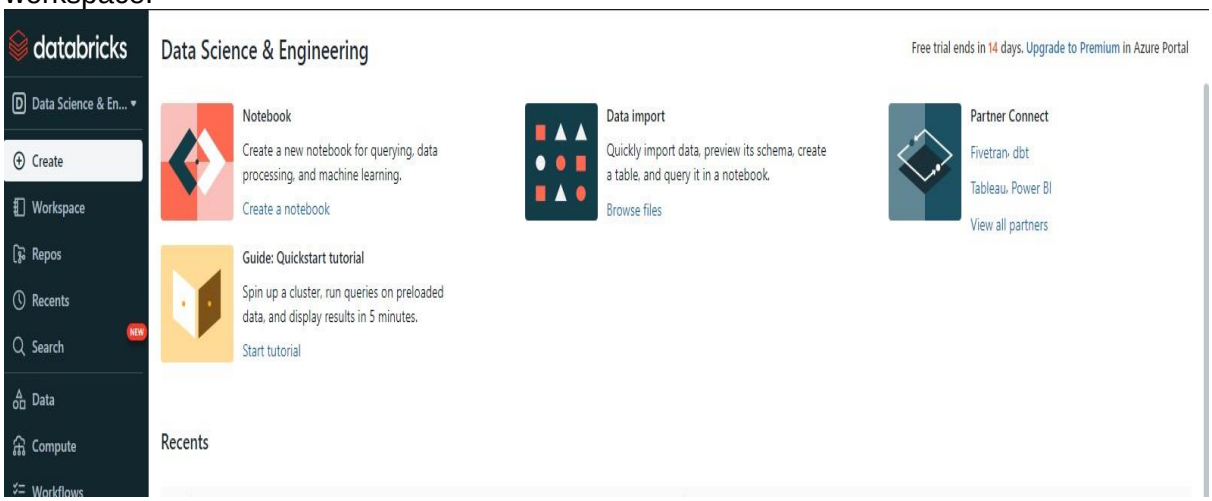


2. Write python program to generate possible tuples from any two sample Lists.

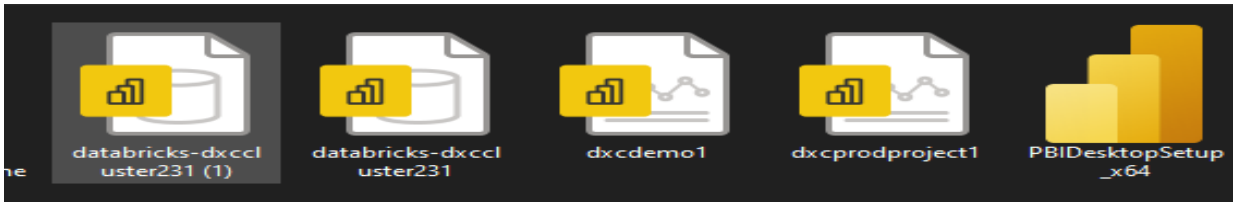


3. Create Azure Databricks & try to connect databricks & powerBI , explain the steps with screenshots.

Login into the azure portal and search for the Data Bricks. Click on “Azure Data Bricks” and it will navigate you to the page. And click on “create” to create Data Bricks. After checking all these reviews and creating and waiting for deployment after deployment click on Go to resource.
After clicking the go to resource button you are navigated to the Data Bricks and launch the workspace.



After that open user settings and generate a token . After that, go to tables and click on partner connect and select the “**power BI**” and attach the cluster and download the file as shown below.



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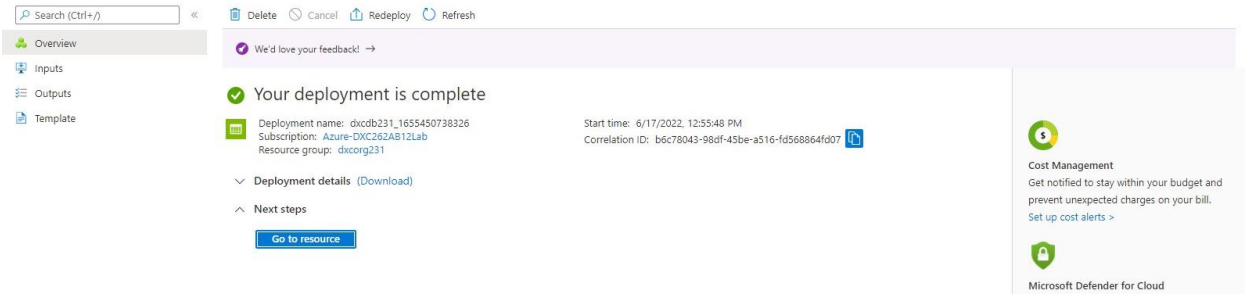
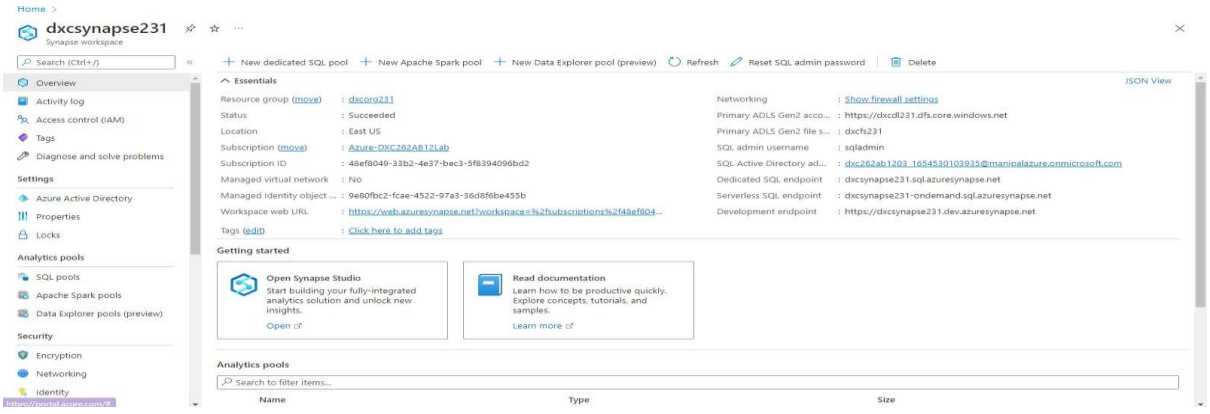
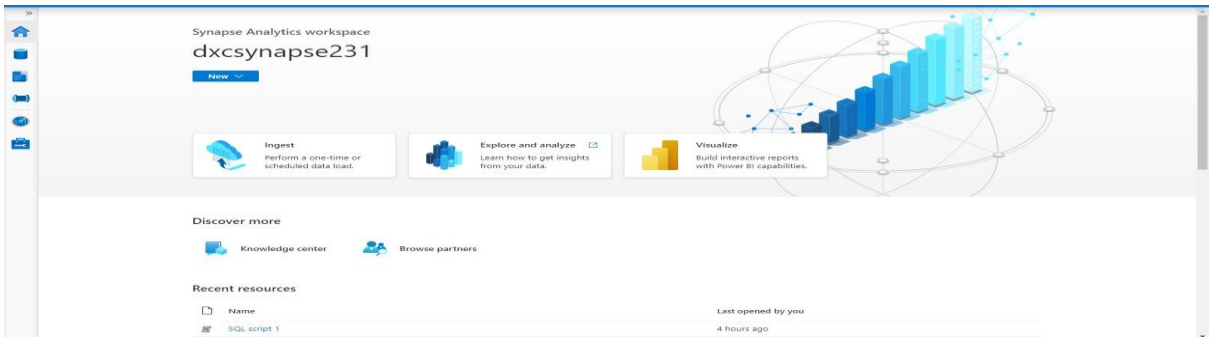
4.Create Azure Synapse & connect with Azure Blob, explain the steps with screenshots.

Create an "**Azure Synapse Account and** Wait for the Deployment.



Click on goto resource and navigate to the synapse studio and click on open.





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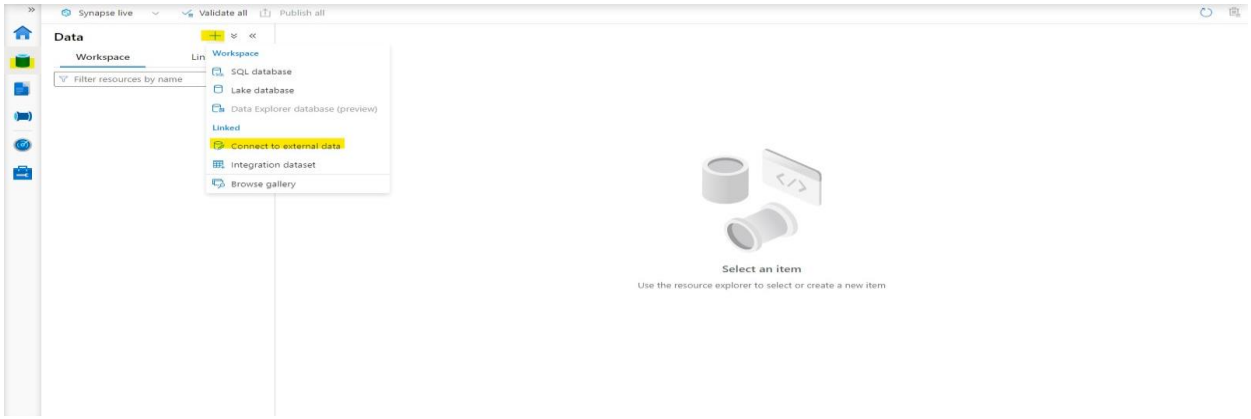
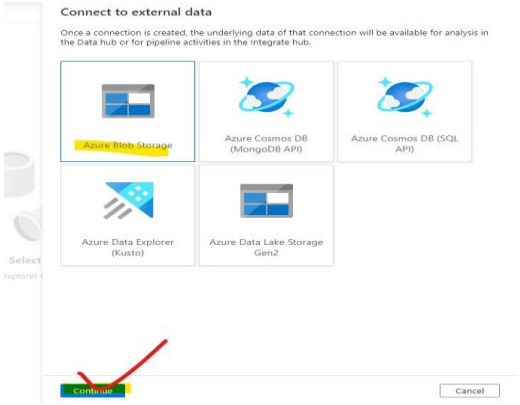
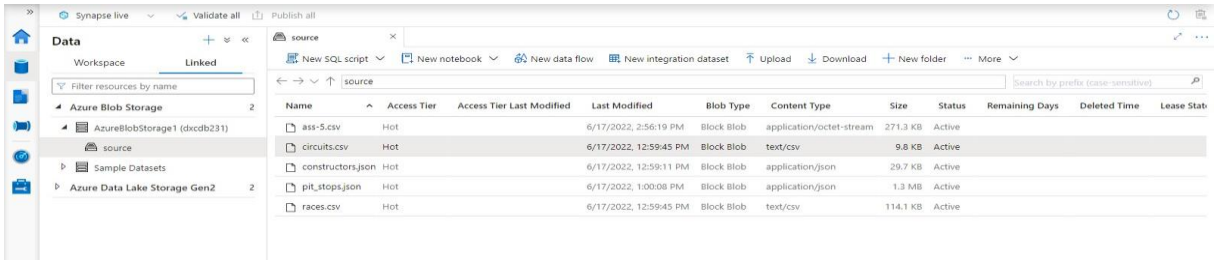
Click on data after that click on connect external data as shown in the screen.

Click on azure blob storage and click on create.





New linked services page will open give the info required and check connection and later click on create. After that the blob storage is connected successfully.



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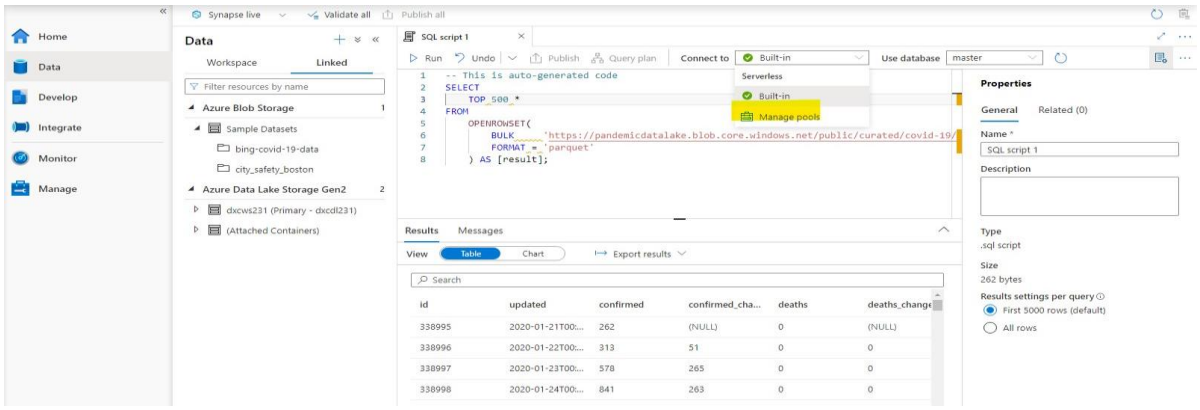
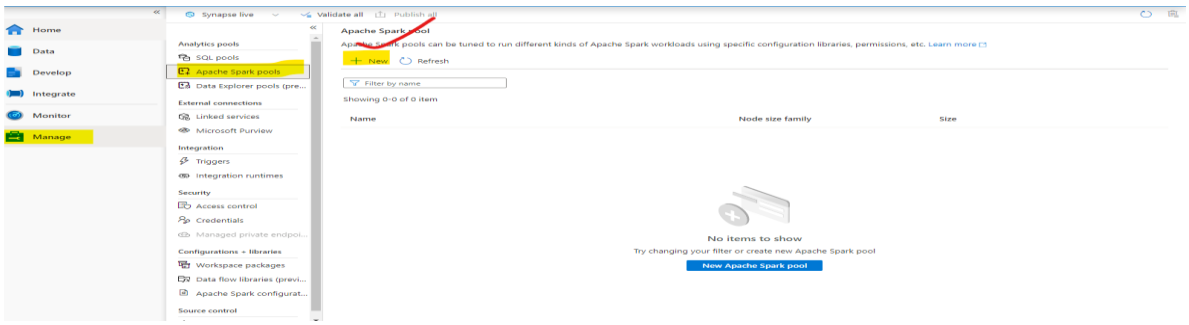
5.Create Azure Synapse spark pool & query sample sample JSON file, explain the steps with screenshots.

To create a spark pool we have to follow the steps mentioned below.

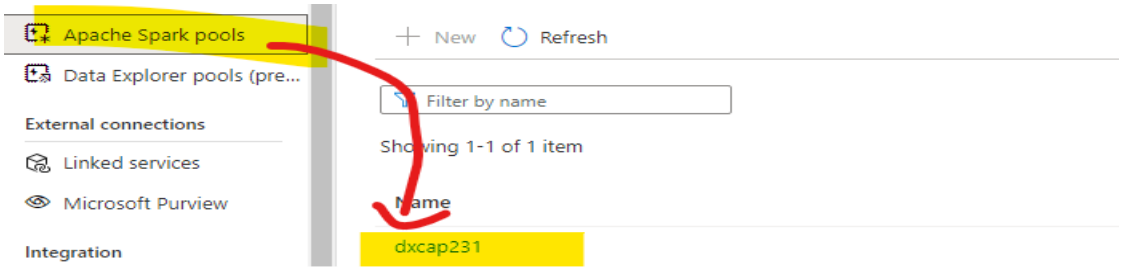
Click on manage pools in Synapse.



After that it navigates to the mange page and selects spark pool there, referscreenshot.



Fill all the requirements and click on review and create.



Now querying a sample json file. Attach to the pool and click on run all. It takes some time.

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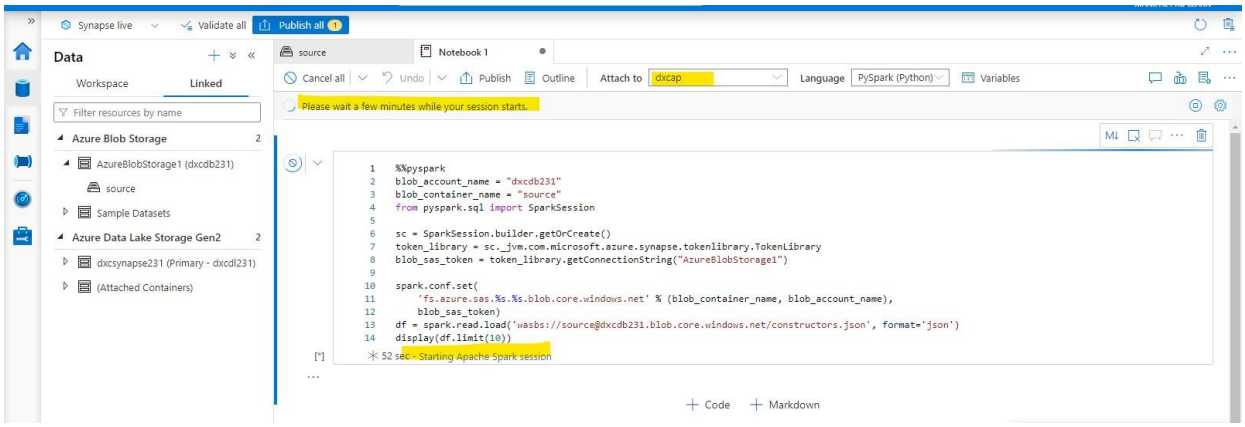
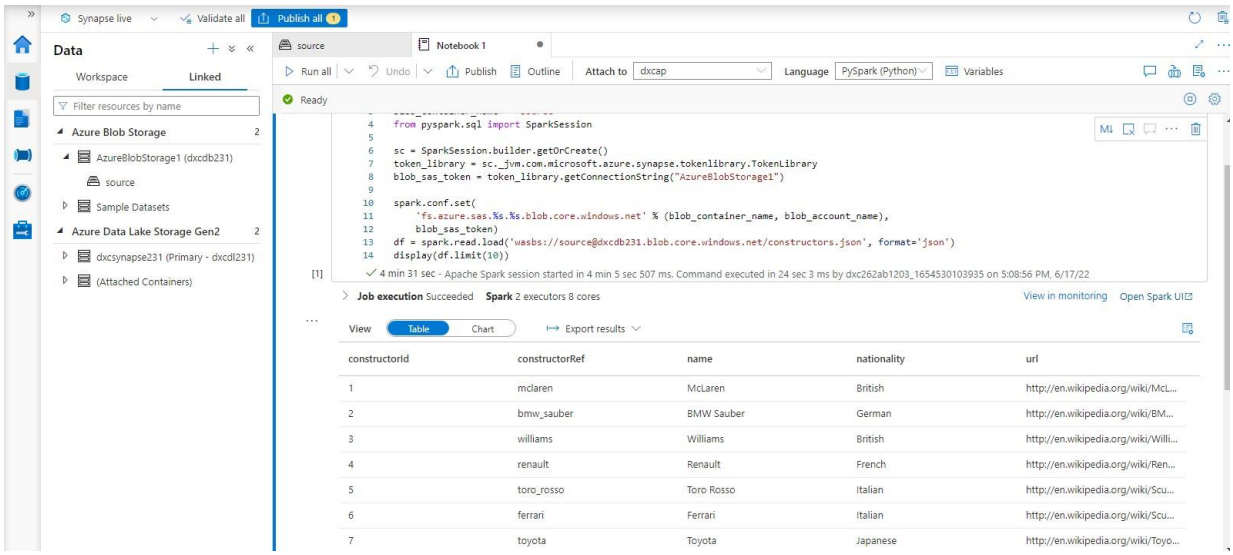
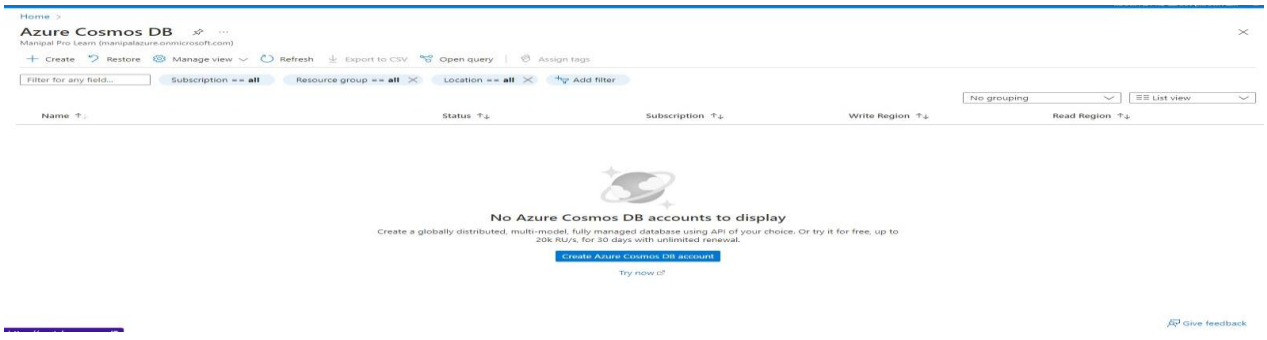


The data will be queried successfully as shown in the screen.



6.Create Azure Cosmos DB & import sample JSON file, explain the steps with screenshots

Go to azure portal and search for “Azure cosmos DB”.



We have to select the API option and we are recommended with core sql

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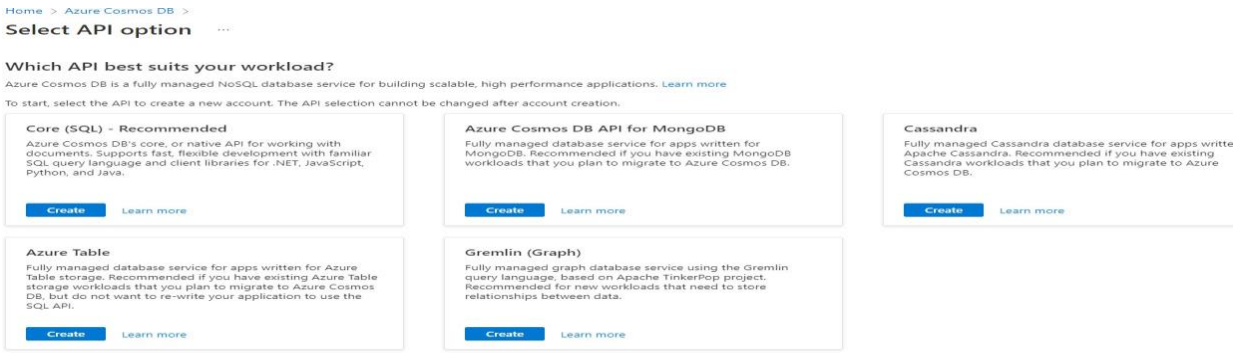
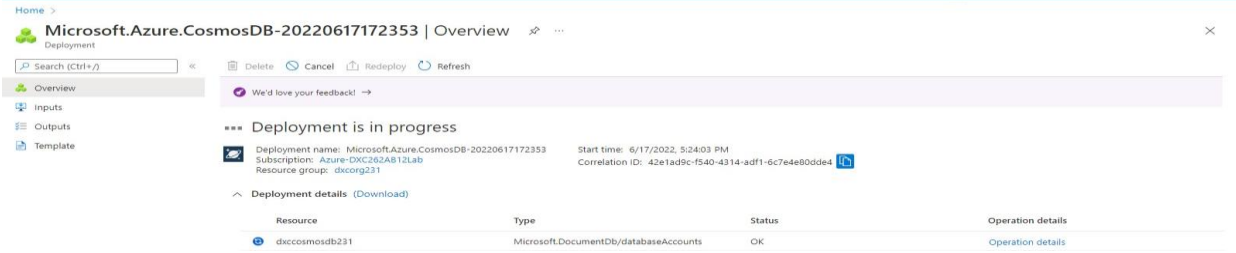
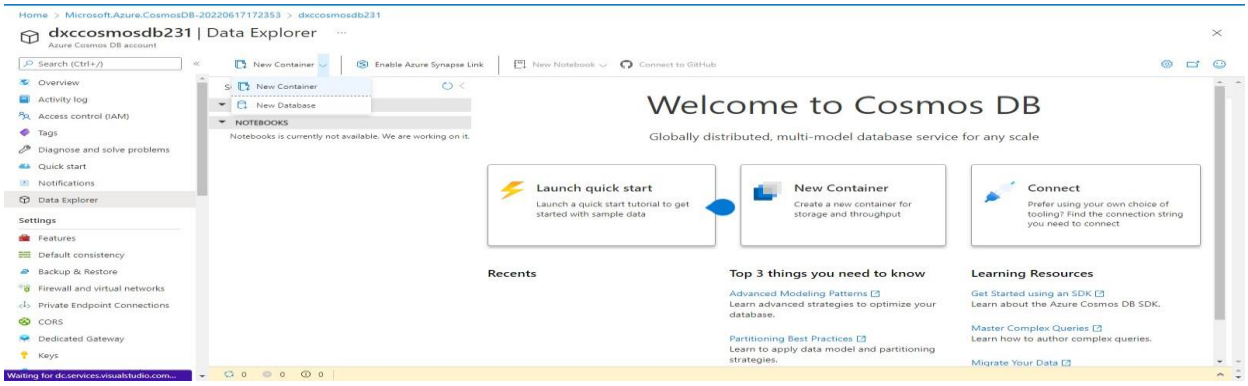


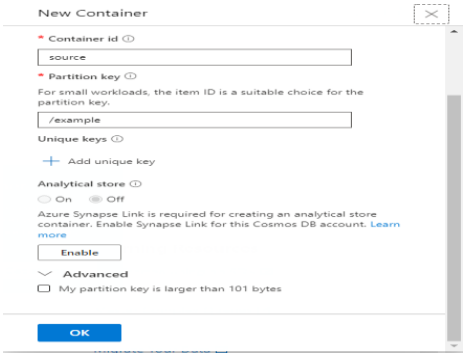
We have to fill in the following details. After successful validation click on create. Wait for the deployment to complete.



After completion of deployment click on go to resource. After going to the cosmos DB and follow the below mentioned steps.



Create the container



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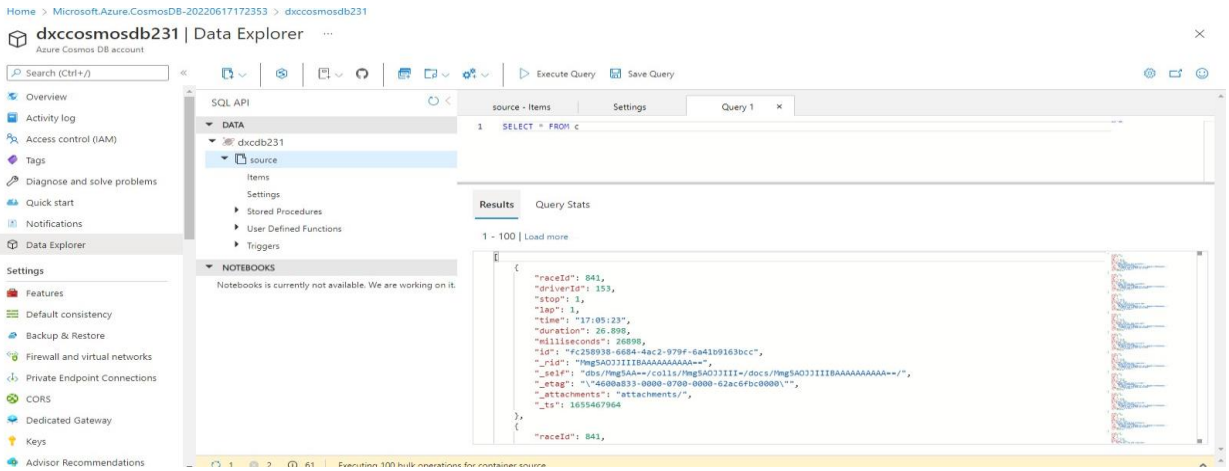
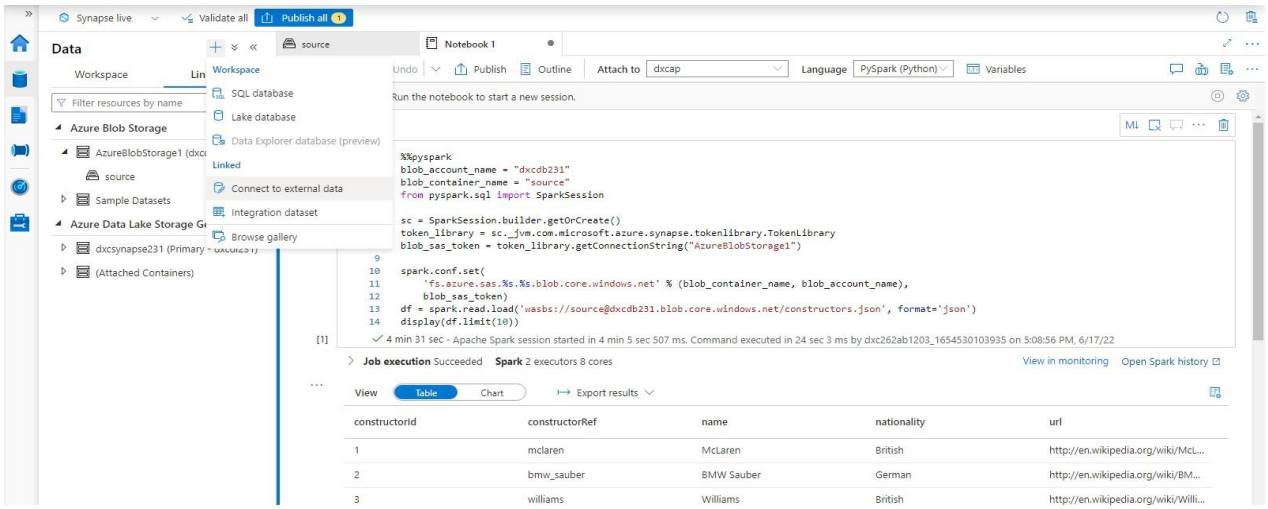
Upload the data as shown below screen and After clicking on execute query then thedata will be queried.

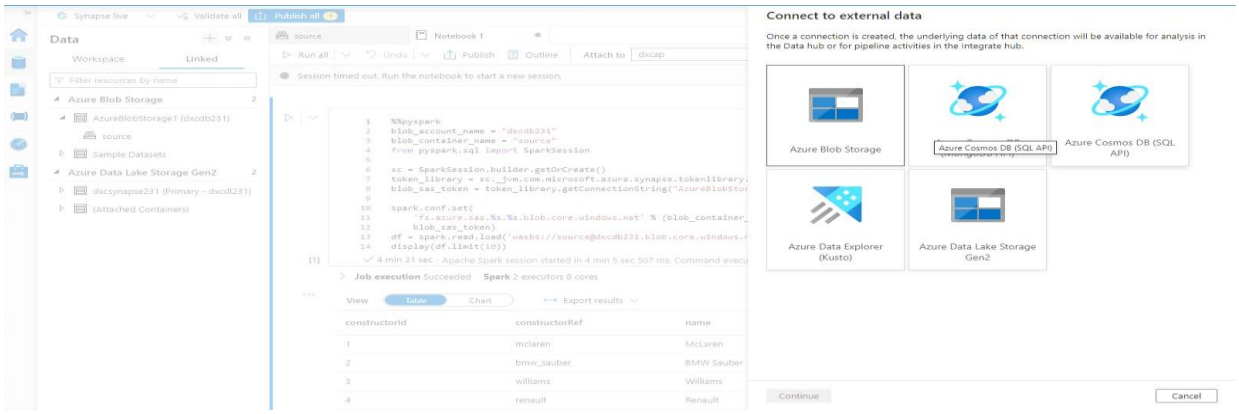


7.Connect COSMOS DB & Azure Synapse analytics & explain the steps with screenshots

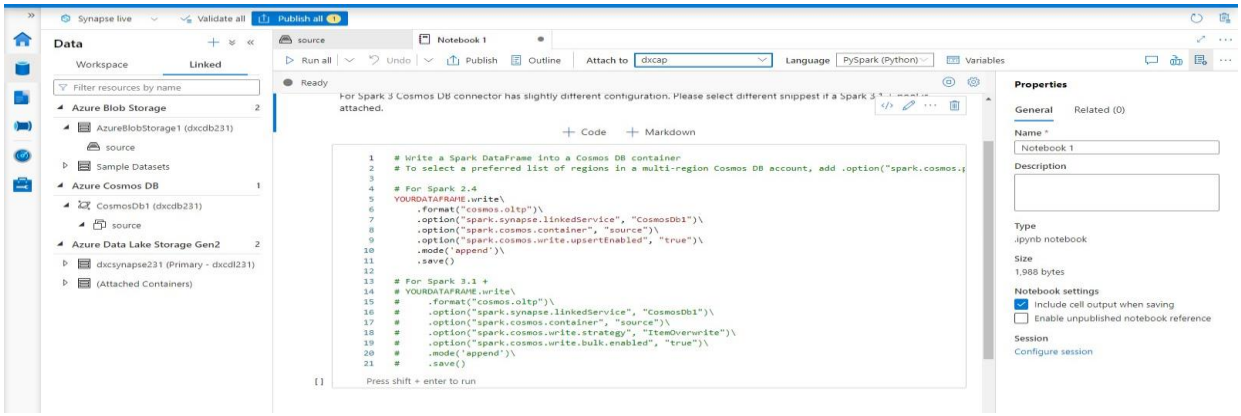
Open azure synapse and click on data and click on + icon and select connect external data.



Then select the cosmos DB SQL API.

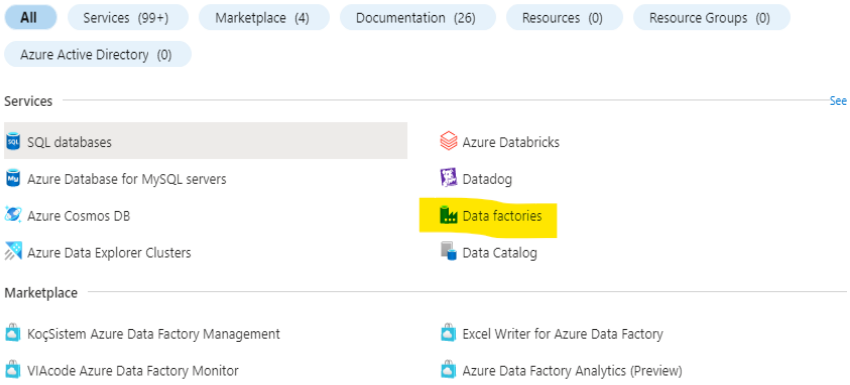


We have to fill the required information. After that cosmos DB is successfully connected with synapse.



8.Create azure Data factory & azure Blob, connect Blob & ADF,import blob files into Data factory & explain the steps with screenshots

Login to the azure portal and search for azure data factory as shown in figure.



After navigating to the azure data factory page click on create and select the resource group, name, region, version after that click on next . Click on git configurations and checkbox it as configure git later. After clicking on create it takes some time for deployment after deployment, Click on go to resources.

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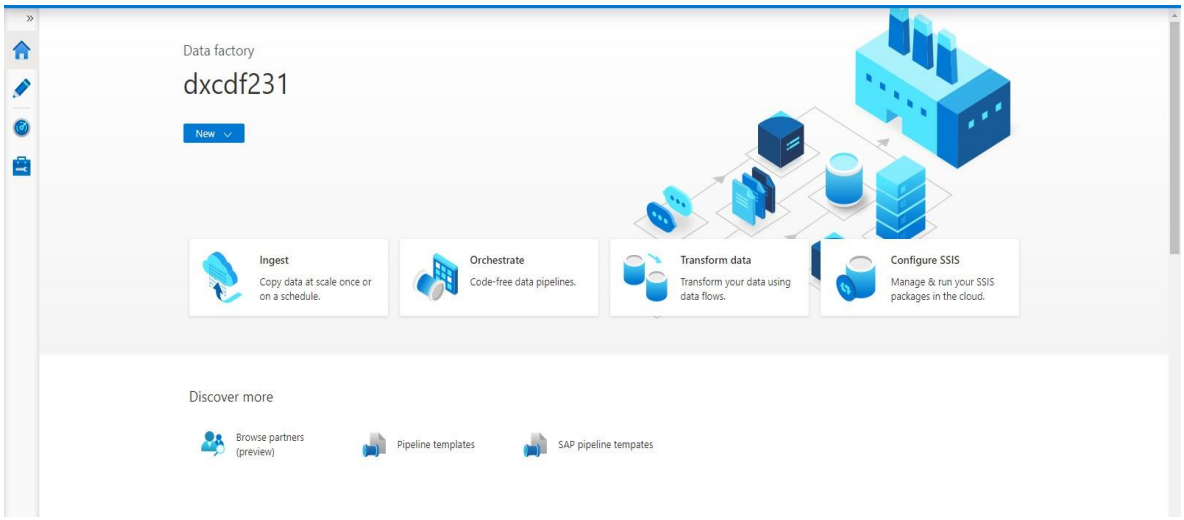
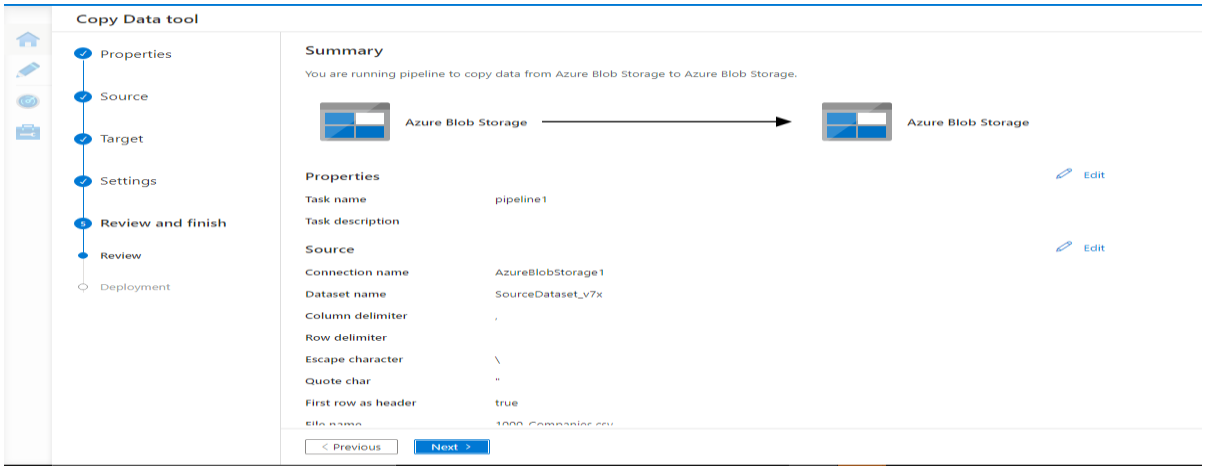


We are moving the data from the source to the destination using the copy data tooland creating a pipeline.



The validation and deployment is done and the pipeline is created successfully. The data is successfully copied from source to destination.