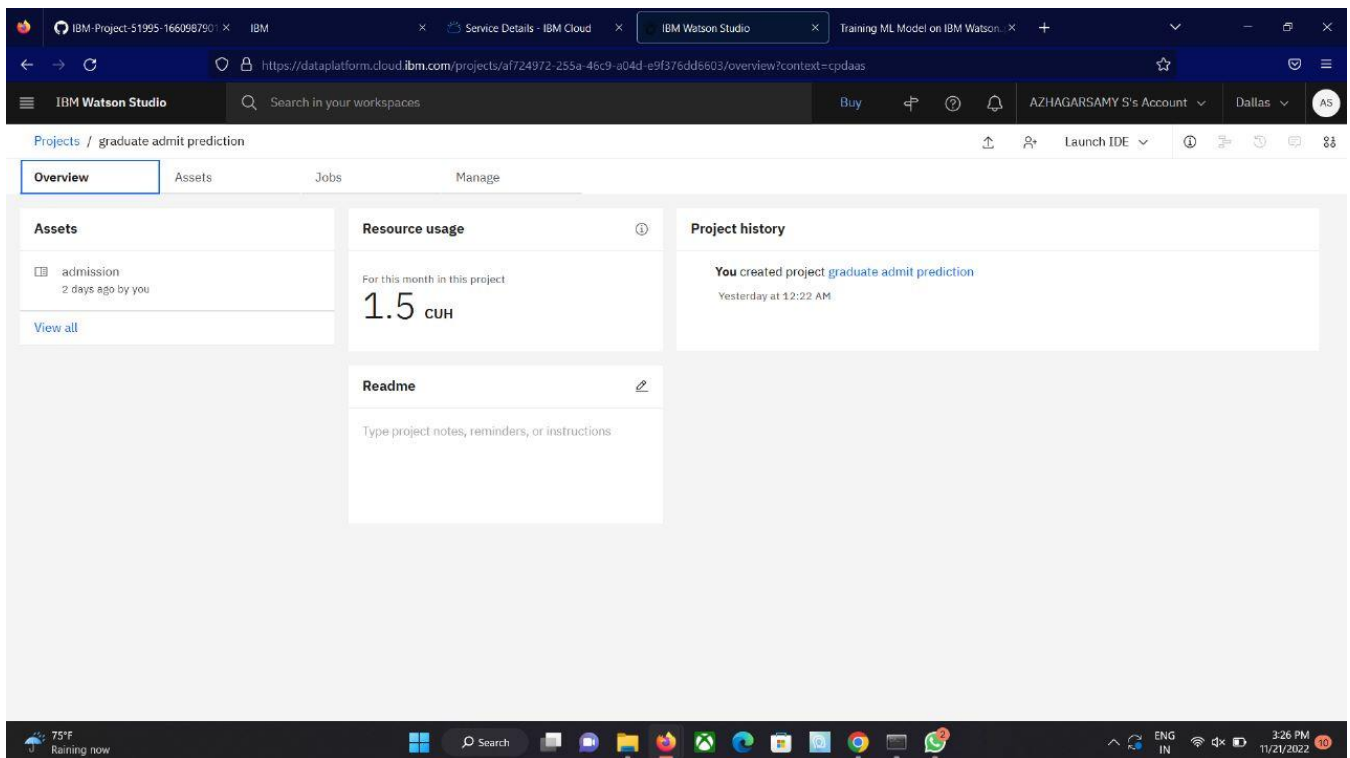


# Training ML Model on IBM Watson

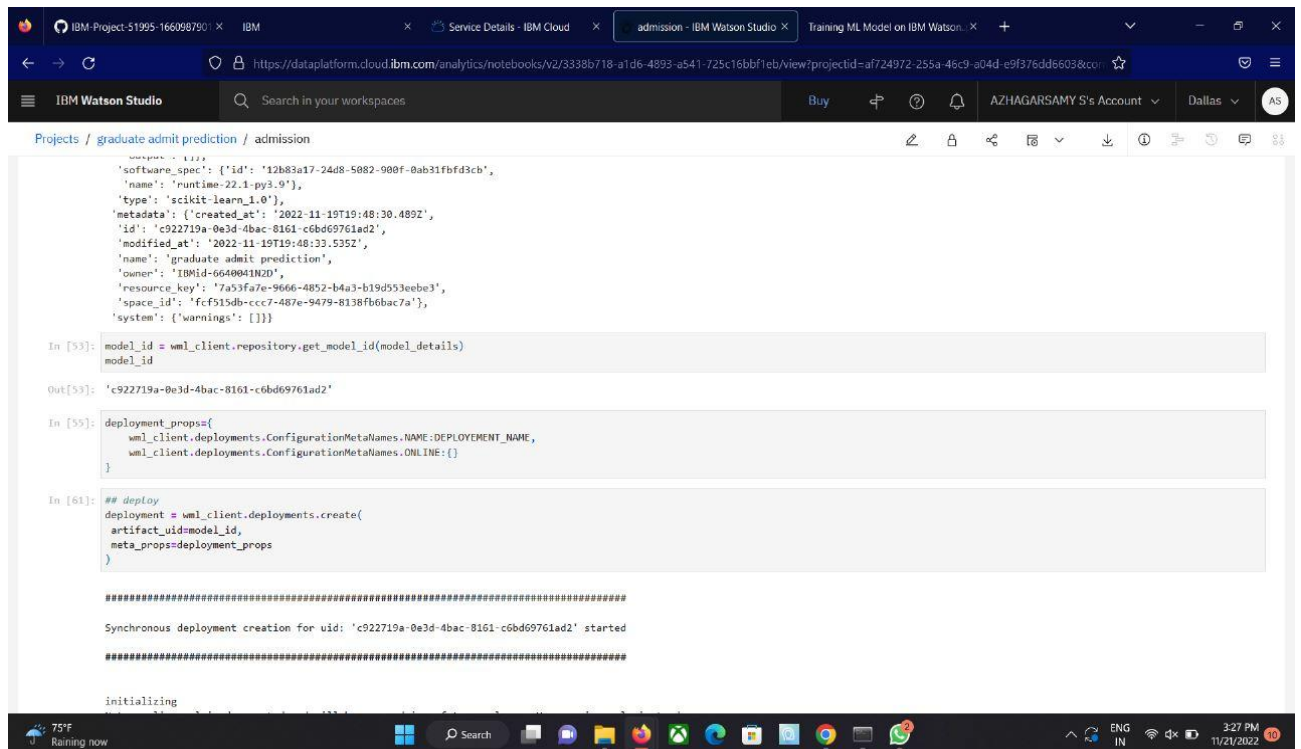
**TEAM ID:** PNT2022TMID29589

**PROJECT:** University Admit Eligibility Predictor

## i) Setting up Watson Studio for running Jupyter notebooks



## ii) Training and saving the model in IBM Watson Machine Learning Service



The screenshot displays the IBM Watson Studio web interface. The browser address bar shows the URL: `https://dataplatform.cloud.ibm.com/analytics/notebooks/v2/3338b718-a1d6-4893-a541-725c16bbf1eb/view?projectId=af724972-255a-46c9-a04d-e9b376dd6603&con`. The page title is "admission - IBM Watson Studio". The breadcrumb navigation shows "Projects / graduate admit prediction / admission".

The Jupyter notebook contains the following Python code:

```
model_id = wml_client.repository.get_model_id(model_details)
model_id

Out[53]: 'c922719a-0e3d-4bac-8161-c6bd69761ad2'

In [55]: deployment_props={
wml_client.deployments.ConfigurationMetaNames.NAME:DEPLOYMENT_NAME,
wml_client.deployments.ConfigurationMetaNames.ONLINE: {}
}

In [61]: ## deploy
deployment = wml_client.deployments.create(
artifact_uid=model_id,
meta_props=deployment_props
)

#####

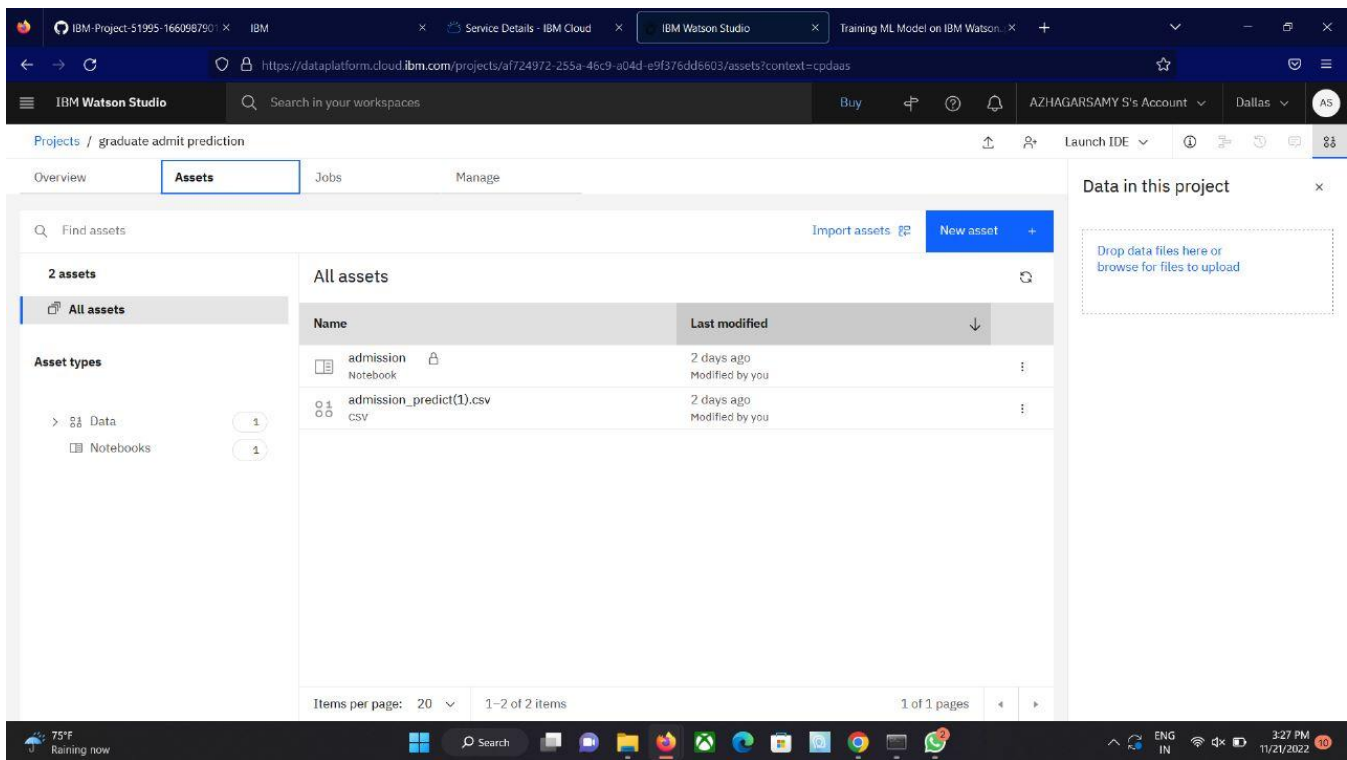
Synchronous deployment creation for uid: 'c922719a-0e3d-4bac-8161-c6bd69761ad2' started

#####

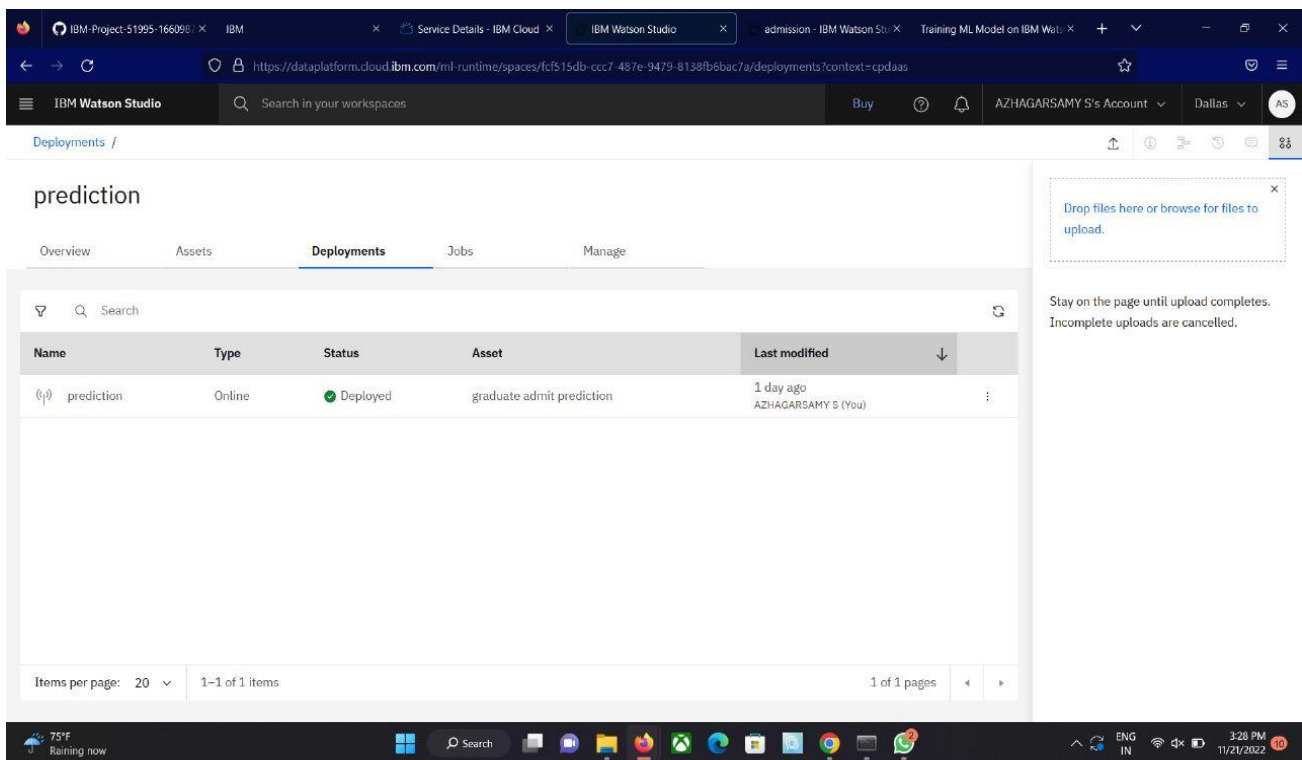
initializing
```

The bottom of the image shows a Windows taskbar with the date and time as 3:27 PM on 11/21/2022, and the weather as 75°F and raining.

Assets:



Deployments:



### iii) Testing the created model using the API created for the deployed model:

```
import requests

# NOTE: you must manually set API_KEY below using information retrieved from your IBM Cloud account.
API_KEY = "<Your-API-Key>"
token_response = requests.post('https://iam.cloud.ibm.com/identity/token', data={"apikey":
    API_KEY, "grant_type": 'urn:ibm:params:oauth:grant-type:apikey'})
mltoken = token_response.json()["access_token"]

header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' + mltoken}

# NOTE: manually define and pass the array(s) of values to be scored in the next line
payload_scoring = {"input_data": [{"field": ["GRE Score", "TOEFL Score", "University Rating", "SOP", "LOR ", "CGPA", "Research"]}, {"values": [[326, 110, 2, 3.5, 4, 9.23, 1]]}]}

response_scoring = requests.post('https://us-south.ml.cloud.ibm.com/ml/v4/deployments/uaep_deployment/predictions?version=2022-11-12', json=payload_scoring,
    headers={'Authorization': 'Bearer ' + mltoken})
print("Scoring response")
print(response_scoring.json())

Scoring response
{'predictions': [{'fields': ['prediction'], 'values': [[[0.8448151378927107]]]]}]
```

