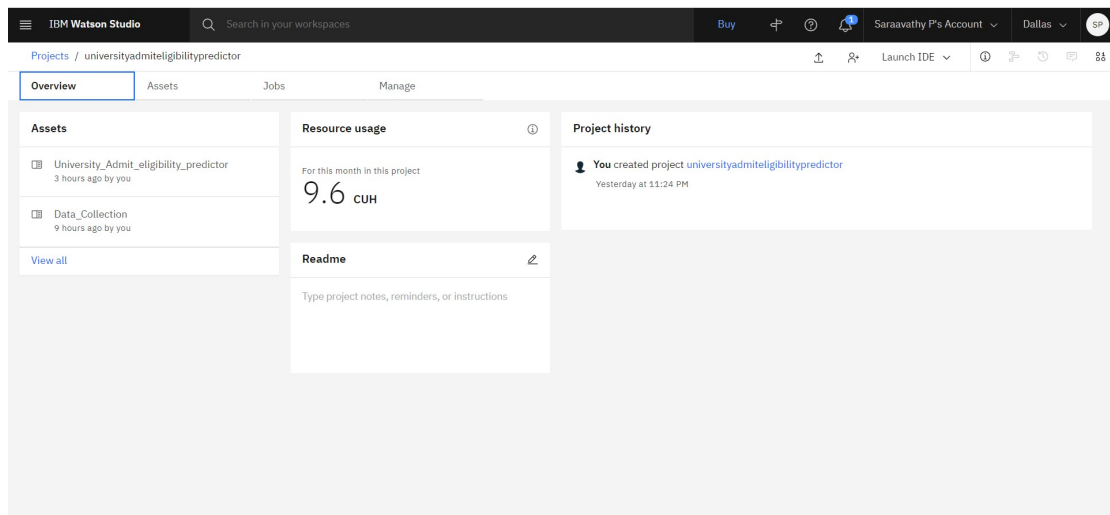


TRAINING ML MODEL ON IBM WATSON

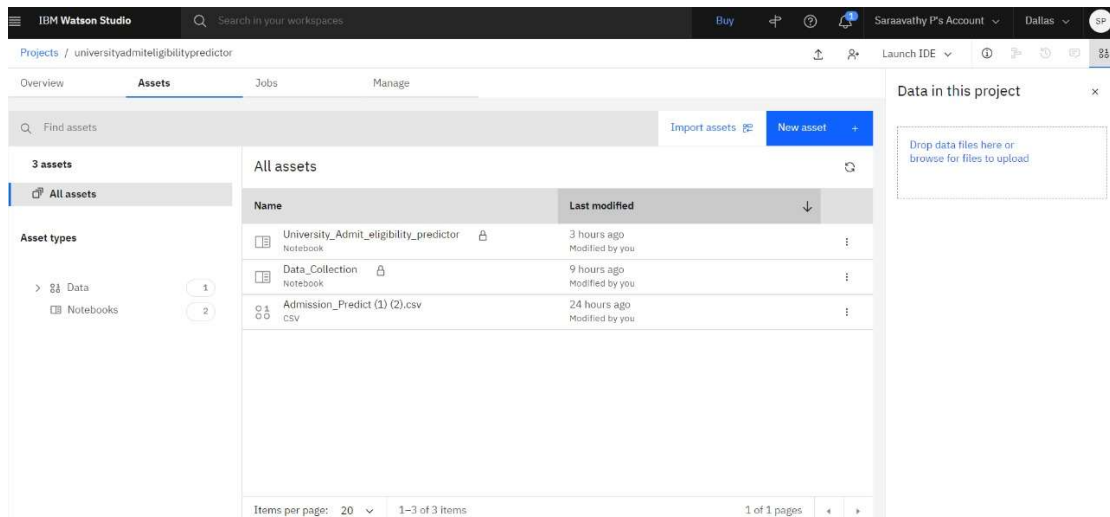
Team ID- PNT2022TMID21016

Project- University Admit Eligibility Predictor

1. Setting up Watson studio for running Jupyter notebooks



2. Training and saving the model in IBM Machine learning service



3) PERSISTING THE MULTIPLE LINEAR REGRESSION MODEL AND DEPLOYING IT IN IBM CLOUD

```
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Projects / universityadmiteligibilitypredictor / University_Admit_eligibility_pred...

autoai-ohm_2.0 5c2e37fa-80b8-5e77-840f-d912469614ee base
spss-modeler_18.1 5c3cad7e-507f-4b2a-a9a3-ab53a21dee8b base
cuda-py3.8 5d3232bf-c86b-5df4-a2cd-7bb870a1cd4e base
autoai-kb_3.1-py3.7 632d4b22-10aa-5190-89f0-f52dfb6444d7 base
pytorch-onnx_1.7-py3.8 63d63cdc-b562-50f9-a2d4-ea90a47845b0 base
Note: Only first 50 records were displayed. To display more use 'limit' parameter.

In [23]: software_spec_id=client.software_specifications.get_uid_by_name("runtime-22.1-py3.9")
software_spec_id

Out[23]: '12b83a17-24d8-5082-900f-0ab31fbd3cb'

In [24]: model_details=client.repository.store_model(model_multiple_lin_reg,meta_props={
client.repository.ModelMetaNames.NAME:"UNIVERSITYADMIT",
client.repository.ModelMetaNames.TYPE:"scikit-learn-1.0",
client.repository.ModelMetaNames.SOFTWARE_SPEC_UID:software_spec_id
})
model_id=client.repository.get_model_id(model_details)

In [25]: model_id

Out[25]: '71765547-1cee-4ce5-80be-b8590f112f3b'

In [26]: x_train

Out[26]:
```

	GRE Score	TOEFL Score	University Rating	SOP	LOR	CGPA	Research
3	322	110	3	3.5	2.5	8.67	1
18	318	110	3	4.0	3.0	8.80	0
202	340	120	5	4.5	4.5	9.91	1
250	320	104	3	3.0	2.5	8.57	1

4)ASSETS AND DEPLOYMENTS

Service Details - IBM Cloud x IBM Watson Studio x WhatsApp x Meet - bfp-iany-pvj x

dataplatform.cloud.ibm.com/ml-runtime/spaces/e8f72d35-ec18-4e49-8c56-1f5cec1ca706/assets?context=cpdaas

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Deployments /

universityadmit

Overview Assets Deployments Jobs Manage

Find assets Import assets

1 asset

All assets 1

Asset types

Models 1

Assets

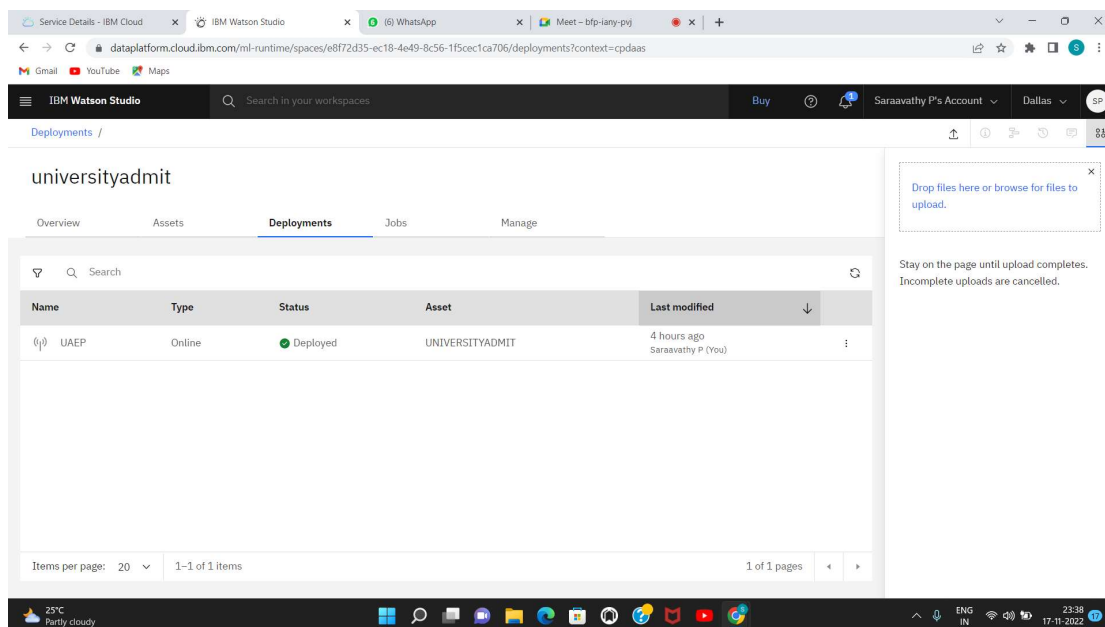
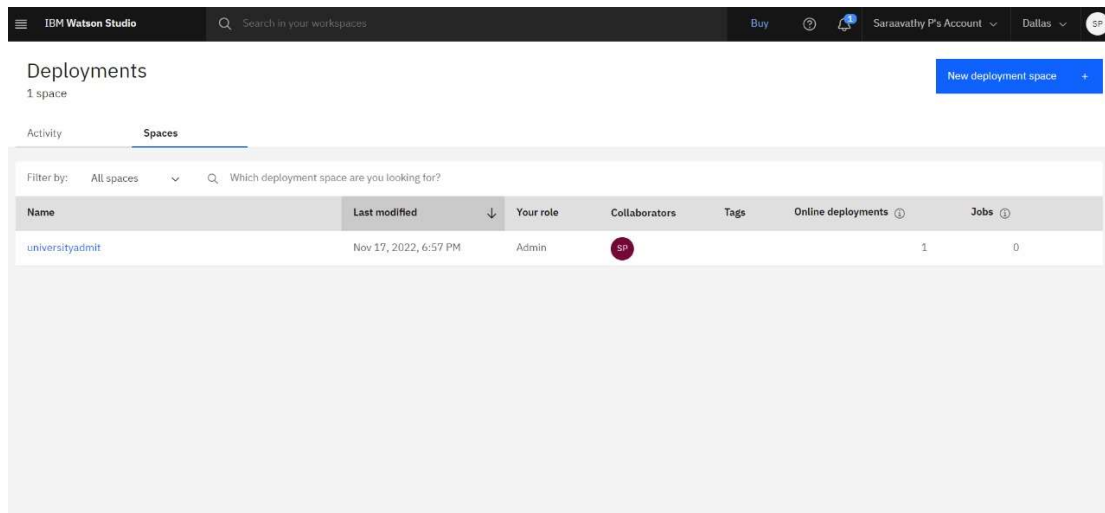
Name	Last modified
UNIVERSITYADMIT Model	5 hours ago Service

Items per page: 20 1-1 of 1 items 1 of 1 pages

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5) Testing the created model using API created for the deployed model:

```
import requests
import json

# NOTE: you must manually set API_KEY below using information retrieved from your IBM Cloud account.
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": [[320, 100, 2, 3

response_scoring = requests.post('https://us-south.ml.cloud.ibm.com/ml/v4/deployments/a5037cc3-64cd-410e-9acc-2bd9da728164/predictions?version=2022-:
json=payload_scoring, headers={'Authorization': 'Bearer ' + mltoken})
print("Scoring response")
print(response_scoring.json())

Scoring response
{'predictions': [{'fields': ['prediction'], 'values': [[0.6588228761439119]]}]}
```