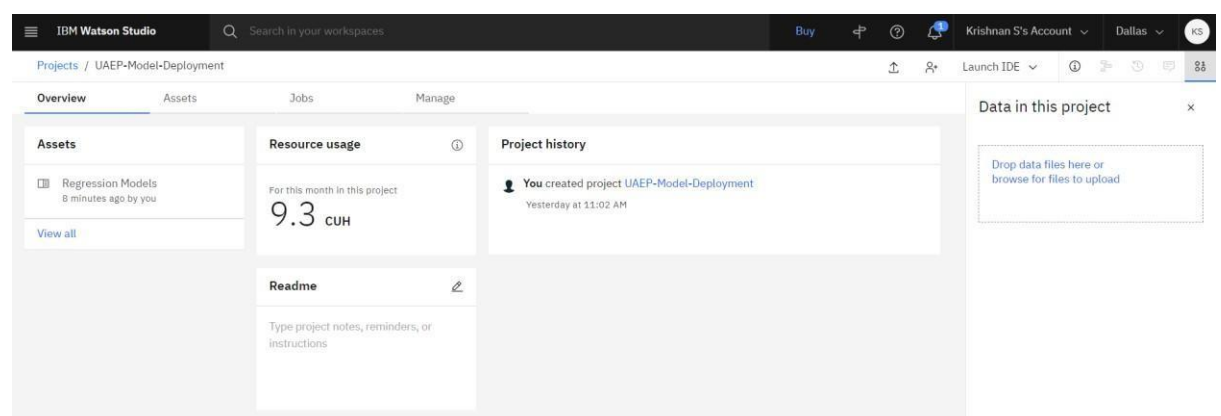
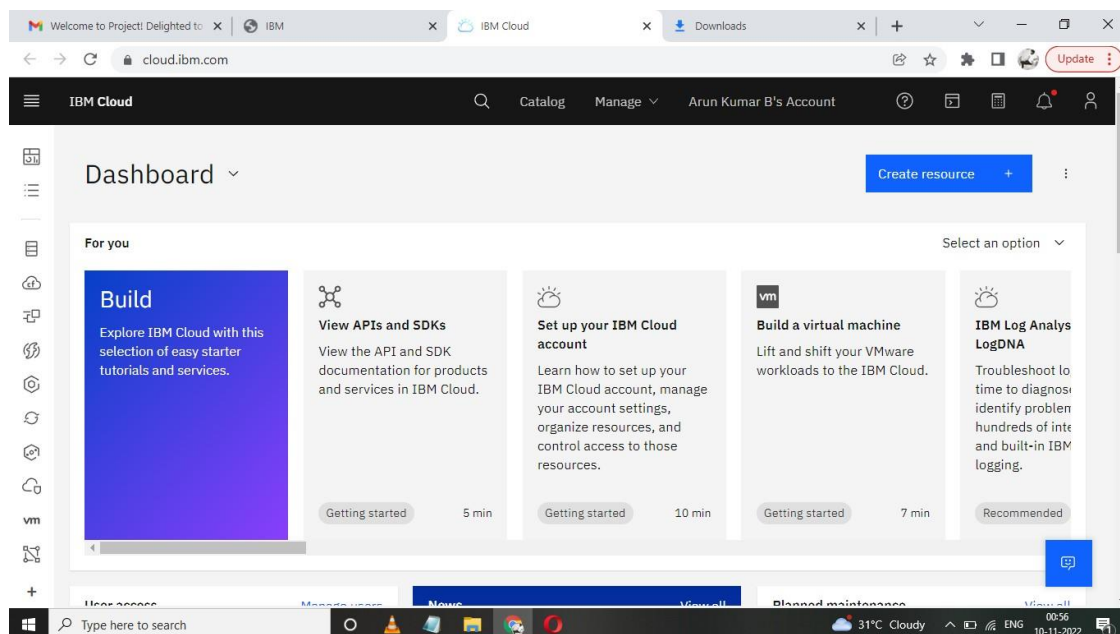


Training ML Model on IBM Watson

TEAM ID: IBM-Project-55145-1666074957

PROJECT: University Admit
Eligibility Predictor

i) Setting up Watson Studio for running Jupyter notebooks



All assets			
Name		Last modified	
Regression Models		9 minutes ago	
Notebook		Modified by you	
Admission_Predict_Ver1.1.csv		24 hours ago	
CSV		Modified by you	
Admission_Predict.csv		24 hours ago	
CSV		Modified by you	

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

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

```

In [60]: #Set Python Version
software_spec_uid = client.software_specifications.get_uid_by_name("runtime-22.1-py3.9")
software_spec_uid

Out[60]: '12b83a17-24d8-5082-900f-0ab31fbfd3cb'

In [61]: model_details = client.repository.store_model(model = multiple_lin_reg, meta_props={
    client.repository.ModelMetaNames.NAME: "UAEP_Multiple_Linear_Regression",
    client.repository.ModelMetaNames.TYPE: "scikit-learn_1.0",
    client.repository.ModelMetaNames.SOFTWARE_SPEC_UID: software_spec_uid
})

model_id = client.repository.get_model_id(model_details)

In [62]: model_id

Out[62]: '8083e827-e81f-40d1-84ab-20d511771869'

```

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1 asset

All assets1

Asset types

Models1

Assets	
Name	Last modified
UAEP_Multiple_Linear_Regression Model	34 minutes ago Service

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Name	Type	Status	Asset	Last modified
UAEP_Multiple_Linear_Regression_Deployment	Online	Deployed	UAEP_Multiple_Linear_Regression	35 minutes ago Krishnan S (You)

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]]]]}]
```