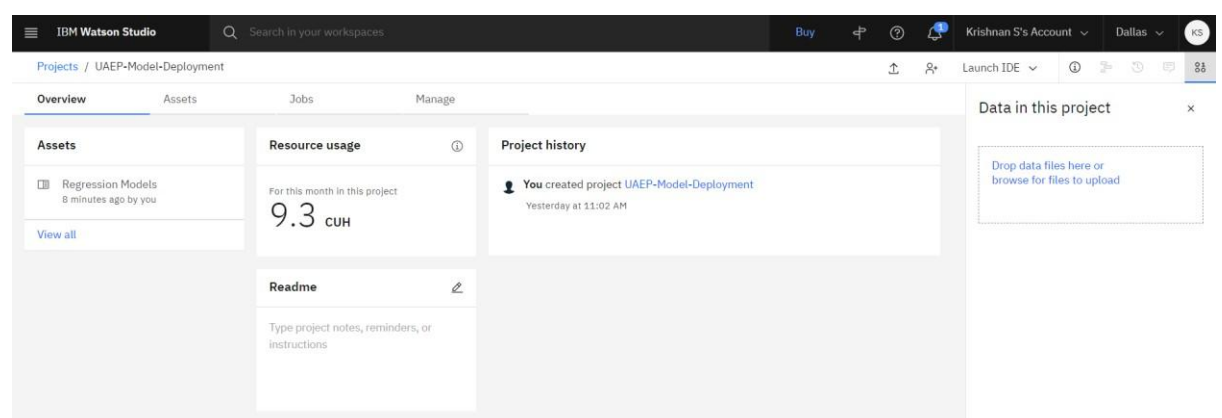
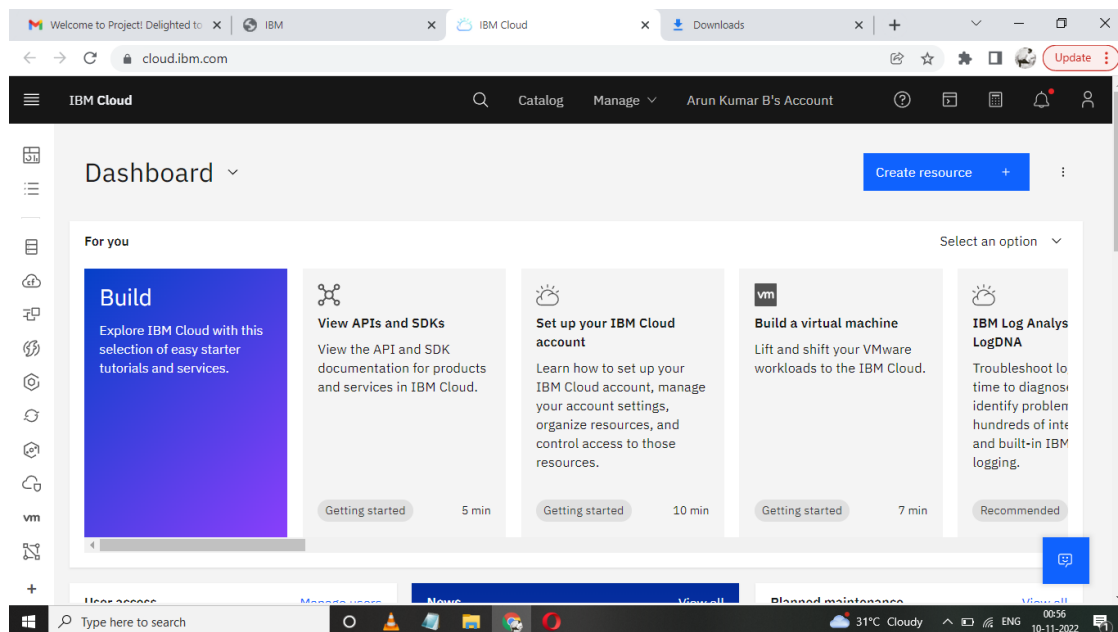






Training ML Model on IBM Watson

TEAM ID: IBM-Project-42692-1660705650

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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Regression-Models

Deployment space for the University Admit Eligibility Predictor project

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Name	Last modified	
<div> <div></div> <div>UAEP_Multiple_Linear_Regression Model</div> </div>	34 minutes ago	<div>Service</div> <div></div>

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Deployment space for the University Admit Eligibility Predictor project

Overview Assets **Deployments** Jobs Manage

Name	Type	Status	Asset	Last modified ↓	
(y) 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/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]]}]}
```