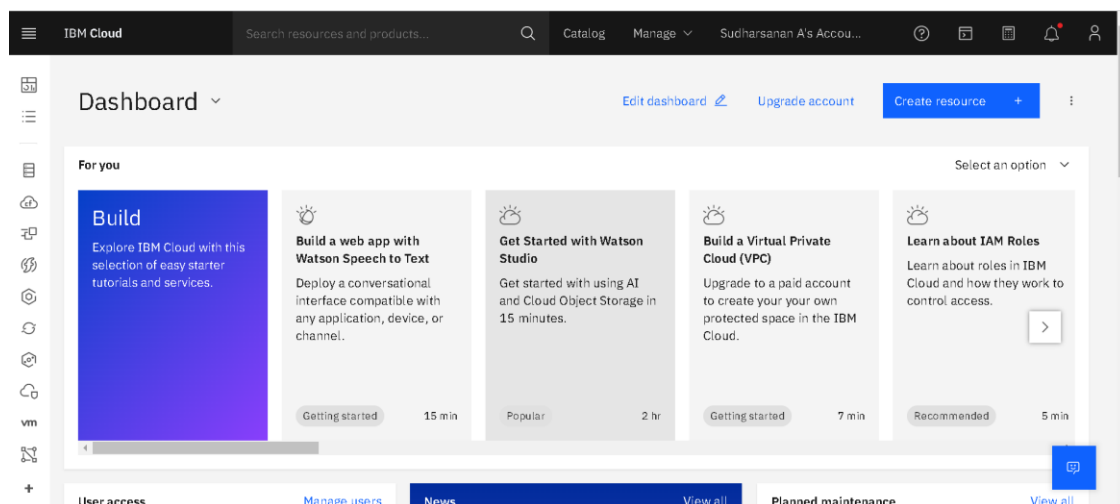










Training ML Model on IBM Watson

TEAM ID: IBM-EPBL-IBM-Project-39165-1660398805

PROJECT: University Admit
Eligibility Predictor

i) Setting up Watson Studio for running Jupyter notebooks



All assets			
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 Regression Models  Notebook	9 minutes ago Modified by you		
 Admission_Predict_Ver1.1.csv csv	24 hours ago Modified by you		
 Admission_Predict.csv csv	24 hours ago 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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UAEP_Multiple_Linear_Regression Model	34 minutes ago Service	

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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 deployedmodel:

```
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]]]]}]
```