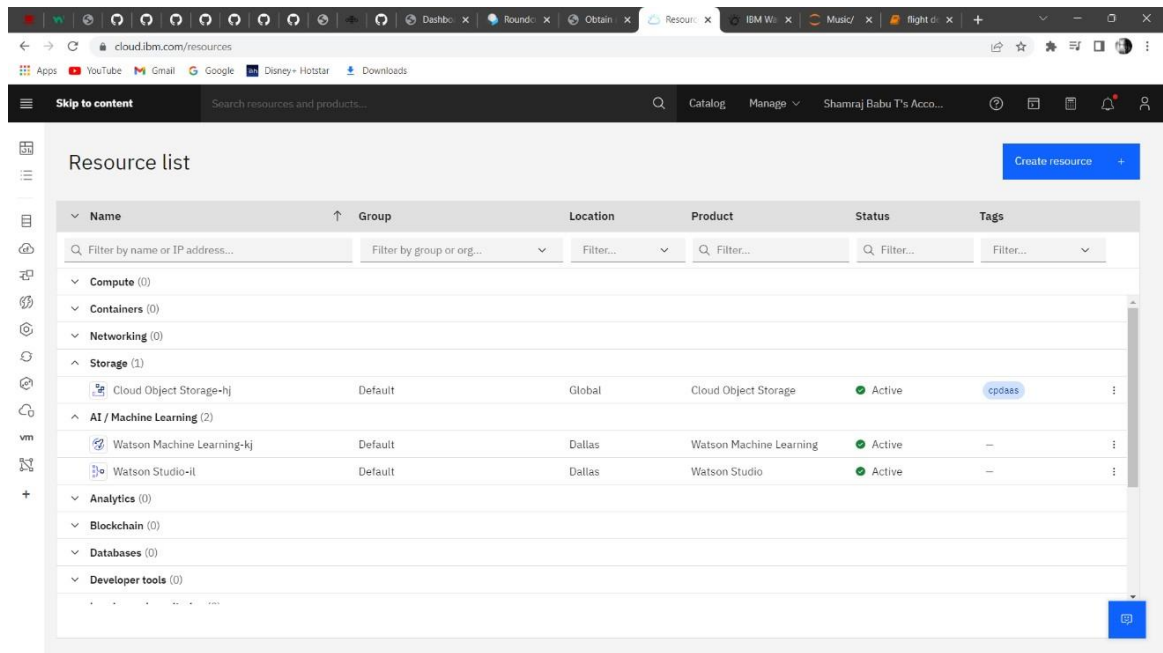# TRAIN THE ML MODEL ON IBM CLOUD

Team ID	PNT2022TMID44333
Project Name	Developing a Flight Delay Prediction Model Using Machine Learning

Create IBM Cloud Required Resources:

Deploy the Model on IBM Watson Studio:

pip install -U ibm-watson-machine-learning
from ibm_watson_machine_learning **import** APIClient
import json

In [63]:

In [64]:

```
wml_credentials = {
    "apikey":"4fJbepuok7oCO1UkeKU831Sq5rz5-JP0R_hljeB2oaEL",
    "url":"https://us-south.ml.cloud.ibm.com"
}
```

In [65]:

```
wml_client = APIClient(wml_credentials)
wml_client.spaces.list()
```

```python
SPACE_ID="deaaa6e0-4843-467d-94d8-71d0272de83b"
```

```python
wml_client.set.default_space(SPACE_ID)
```

```python
wml_client.software_specifications.list(500)
import sys
```

```python
sys.version
```

```python
pip install ibm-watson-machine-learning


import sklearn
sklearn.__version__
```

```python
MODEL_NAME = "RandomForestClassifier()"
DEPLOYMENT_NAME = 'flight delay'
DEMO_MODEL = model
```

```python
software_spec_uid = wml_client.software_specifications.get_id_by_name('runtime-22.1-py3.9')
```

```python
model_props = {
    wml_client.repository.ModelMetaNames.NAME: MODEL_NAME,
    wml_client.repository.ModelMetaNames.TYPE: 'scikit-learn_1.0',
    wml_client.repository.ModelMetaNames.SOFTWARE_SPEC_UID:  software_spec_uid
}
```

```python
model_details = wml_client.repository.store_model(
    model=DEMO_MODEL,
    meta_props=model_props,
    training_data=x_train,
    training_target=y_train
)
```

```python
model_details
```

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

```
deployment_props = {
    wml_client.deployments.ConfigurationMetaNames.NAME:DEPLOYMENT_NAME,
    wml_client.deployments.ConfigurationMetaNames.ONLINE: {}
}
```

```
deployment_props = {
    wml_client.deployments.ConfigurationMetaNames.NAME:DEPLOYMENT_NAME,
    wml_client.deployments.ConfigurationMetaNames.ONLINE: {}
}
```

Deployment The Model:

Testing the Deployment Model: