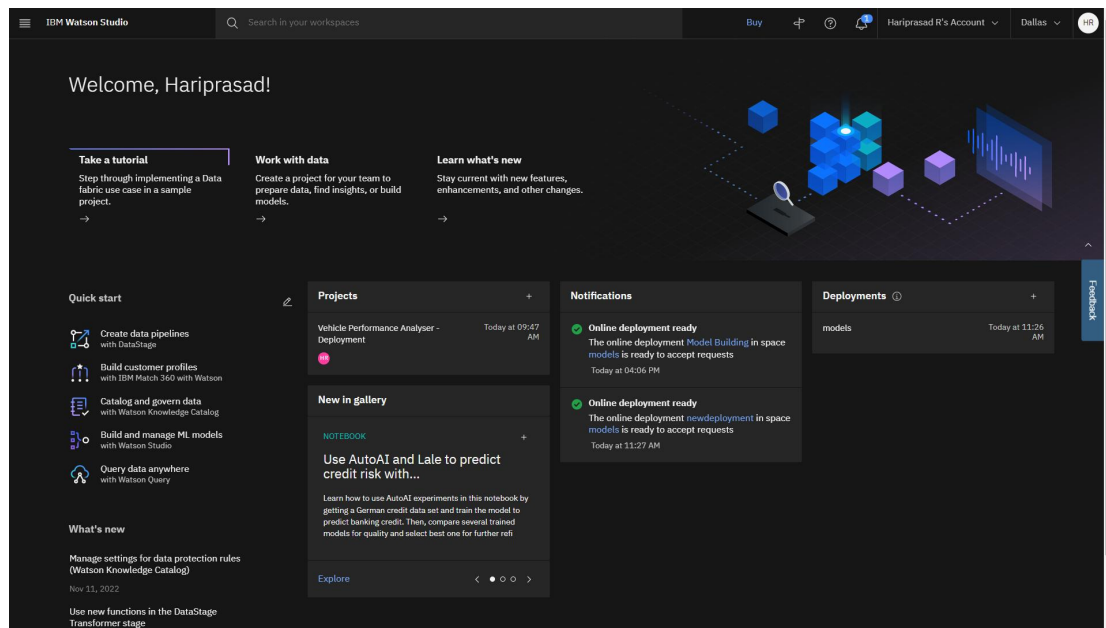


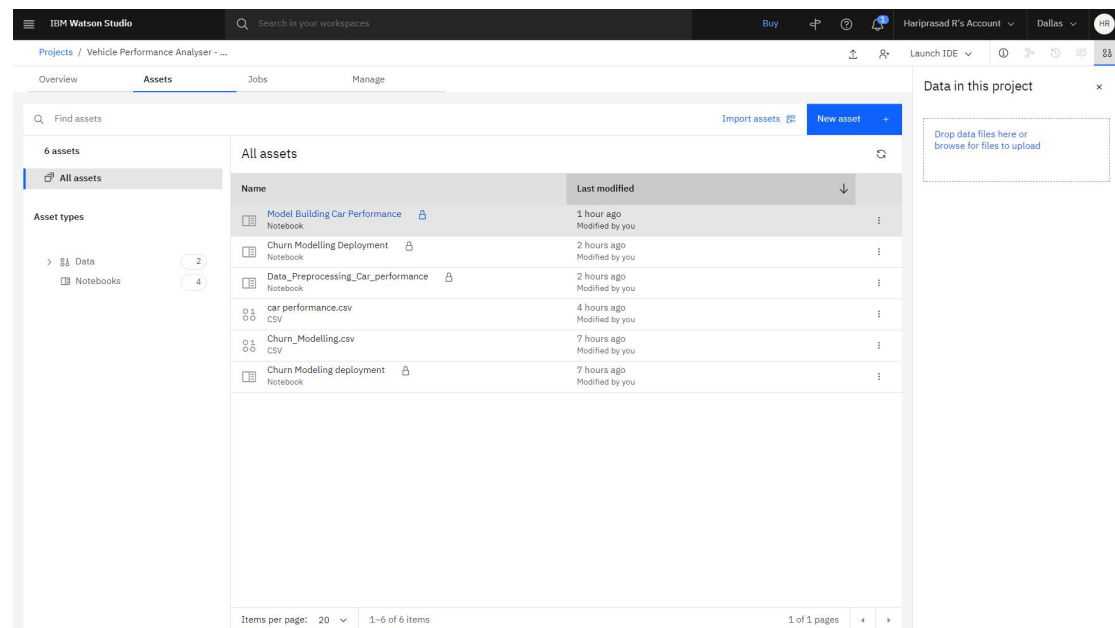
# Train Model on IBM

Date	14 - November - 2022
Team ID	PNT2022TMID31735
Project Name	Machine Learning based Vehicle Performance Analyzer

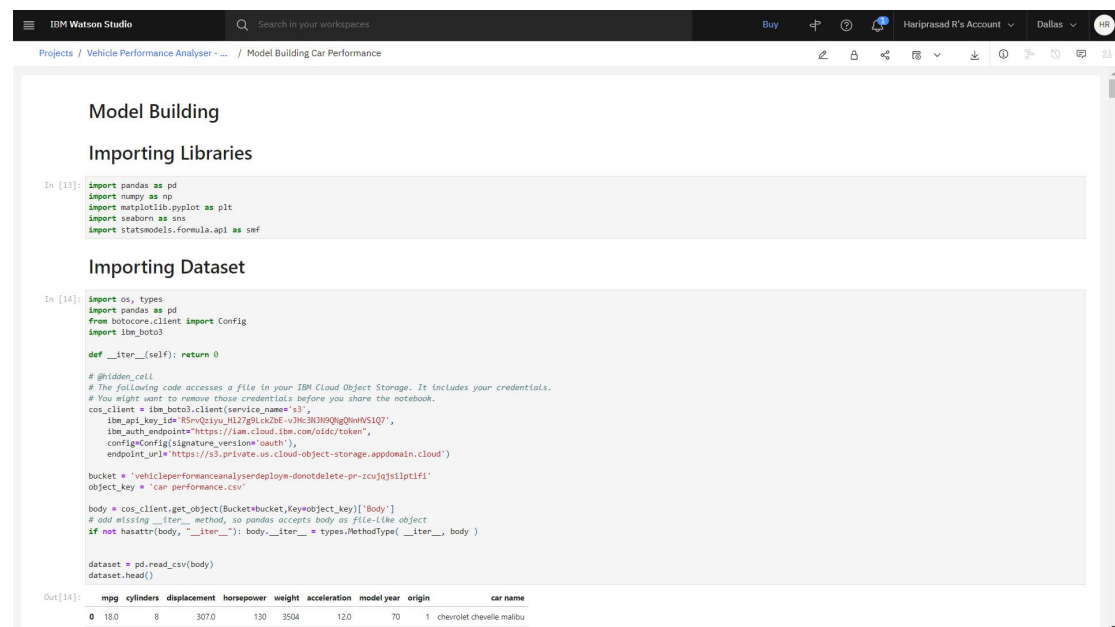
## 1. Training the ML Model in IBM Watson Studio:



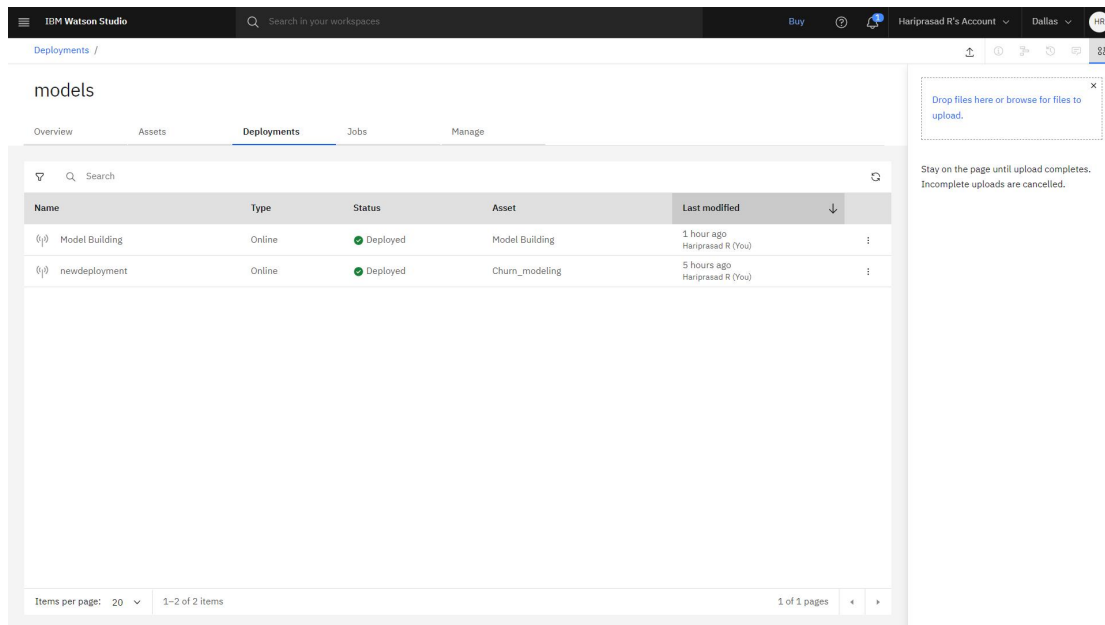
## 2. Model for Vehicle performance has been created using Jupyter Notebook.



## Dataset: Car\_performance.csv Churn\_Modeling.csv



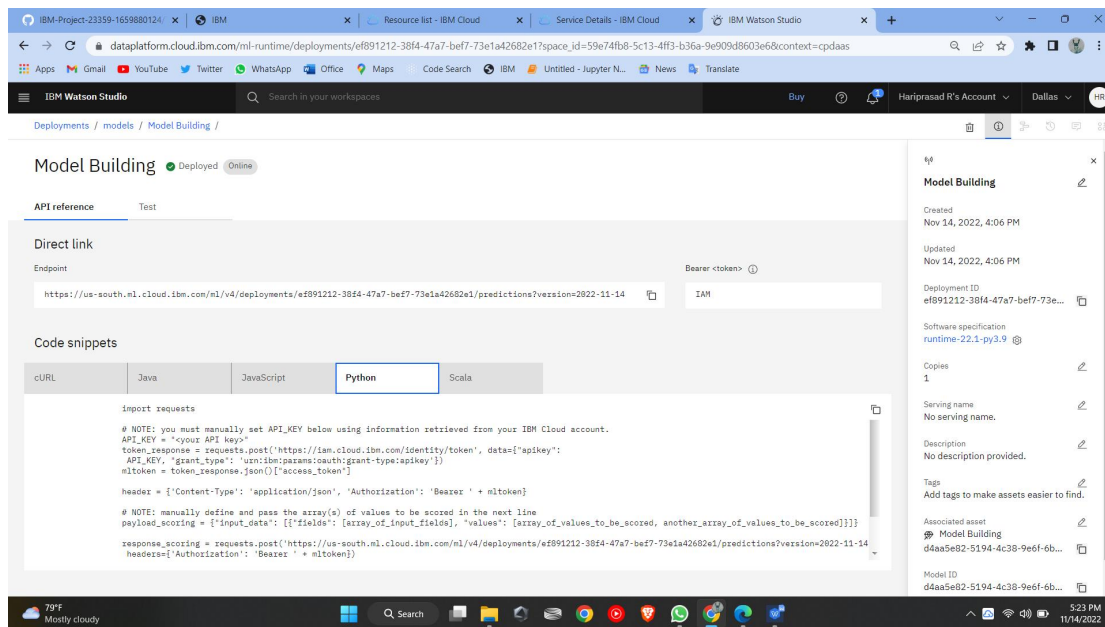
### 3. Model for Vehicle performance has been created using Jupyter Notebook and Deployed under “models” space.



The screenshot shows the IBM Watson Studio interface. The top navigation bar includes the IBM Watson Studio logo, a search bar, and user account information. The main content area is titled "models" and has tabs for Overview, Assets, Deployments, Jobs, and Manage. The Deployments tab is active, displaying a table with the following data:

Name	Type	Status	Asset	Last modified
Model Building	Online	Deployed	Model Building	1 hour ago Hariprasad R (You)
newdeployment	Online	Deployed	Churn_modeling	5 hours ago Hariprasad R (You)

At the bottom of the table, it indicates "Items per page: 20" and "1-2 of 2 items". On the right side, there is a notification box that says "Drop files here or browse for files to upload." and a message: "Stay on the page until upload completes. Incomplete uploads are cancelled."



The screenshot shows the IBM Watson Studio interface for the "Model Building" deployment. The top navigation bar is the same as the previous screenshot. The main content area is titled "Model Building" and has tabs for API reference and Test. The API reference tab is active, displaying the following information:

**Direct link**

Endpoint: `https://us-south.ml.cloud.ibm.com/v4/deployments/ef891212-38f4-47a7-be7f-73e1a42682e1/predictions?version=2022-11-14`

Bearer token: IAM

**Code snippets**

Language: Python

```
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 = {'fields': [array_of_input_fields], 'values': [array_of_values_to_be_scored, another_array_of_values_to_be_scored]}

response_scoring = requests.post('https://us-south.ml.cloud.ibm.com/v4/deployments/ef891212-38f4-47a7-be7f-73e1a42682e1/predictions?version=2022-11-14'
headers={'Authorization': 'Bearer ' + mlToken})
```

On the right side, there is a sidebar with details about the deployment:

- Model Building**
- Created: Nov 14, 2022, 4:06 PM
- Updated: Nov 14, 2022, 4:06 PM
- Deployment ID: ef891212-38f4-47a7-be7f-73e...
- Software specification: runtime-22.1-py3.9
- Copies: 1
- Serving name: No serving name.
- Description: No description provided.
- Tags: Add tags to make assets easier to find.
- Associated asset: Model Building
- Model ID: d4aa5e82-5194-4c38-9e6f-6b...