

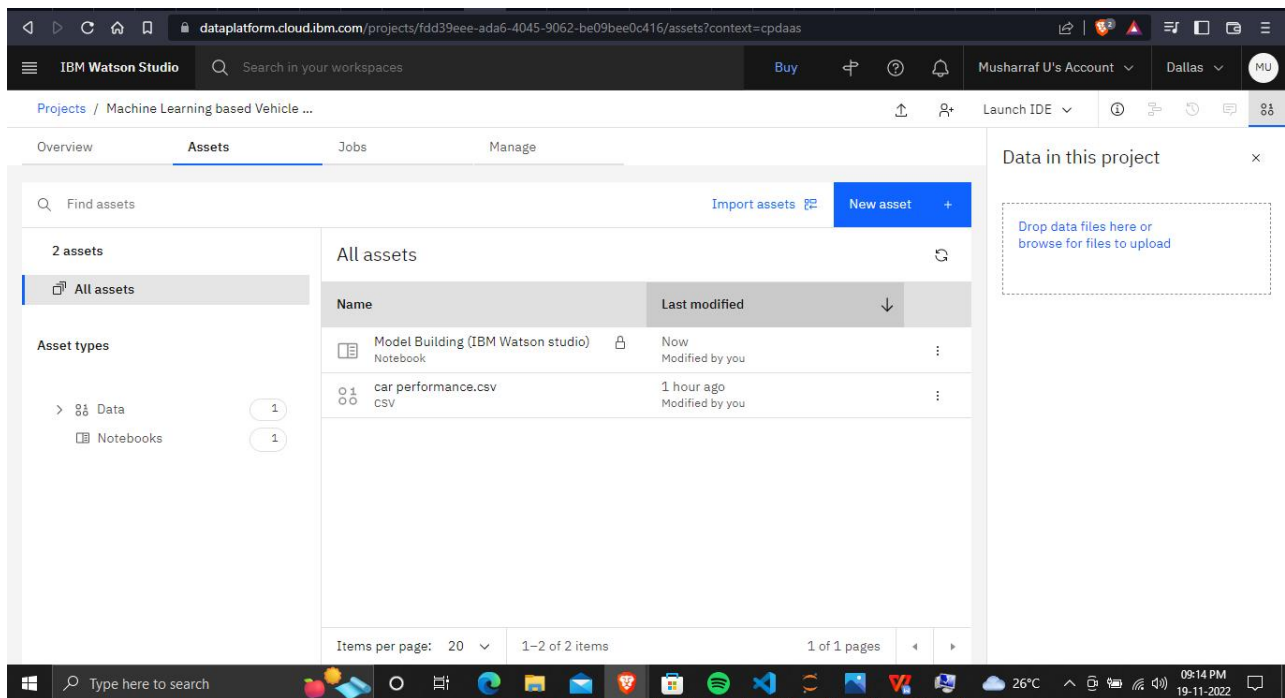
Train Model on IBM

Date	19 - November - 2022
Team ID	PNT2022TMID49241
Project Name	Machine Learning based Vehicle Performance Analyzer

1. Training the ML Model in IBM Watson Studio:

The screenshot displays the IBM Watson Studio interface in a web browser. The URL bar shows `dataplatfrom.cloud.ibm.com/home2?context=cpdaas`. The top navigation bar includes the IBM Watson Studio logo, a search bar, and user account information for 'Musharraf U's Account' in the 'Dallas' region. The main dashboard area features a 'Welcome' message and three primary action cards: 'Take a tutorial', 'Work with data', and 'Learn what's new'. Below these, the 'Quick start' section offers guided paths for creating data pipelines, building customer profiles, and cataloging data. The 'Projects' section lists the active project, 'Machine Learning based Vehicle Performance', created on Nov 15, 2022. The 'Notifications' section indicates no recent notifications. The 'Deployments' section shows a deployment of the 'model' on Nov 19, 2022. The bottom of the image shows a Windows taskbar with various application icons and system status indicators.

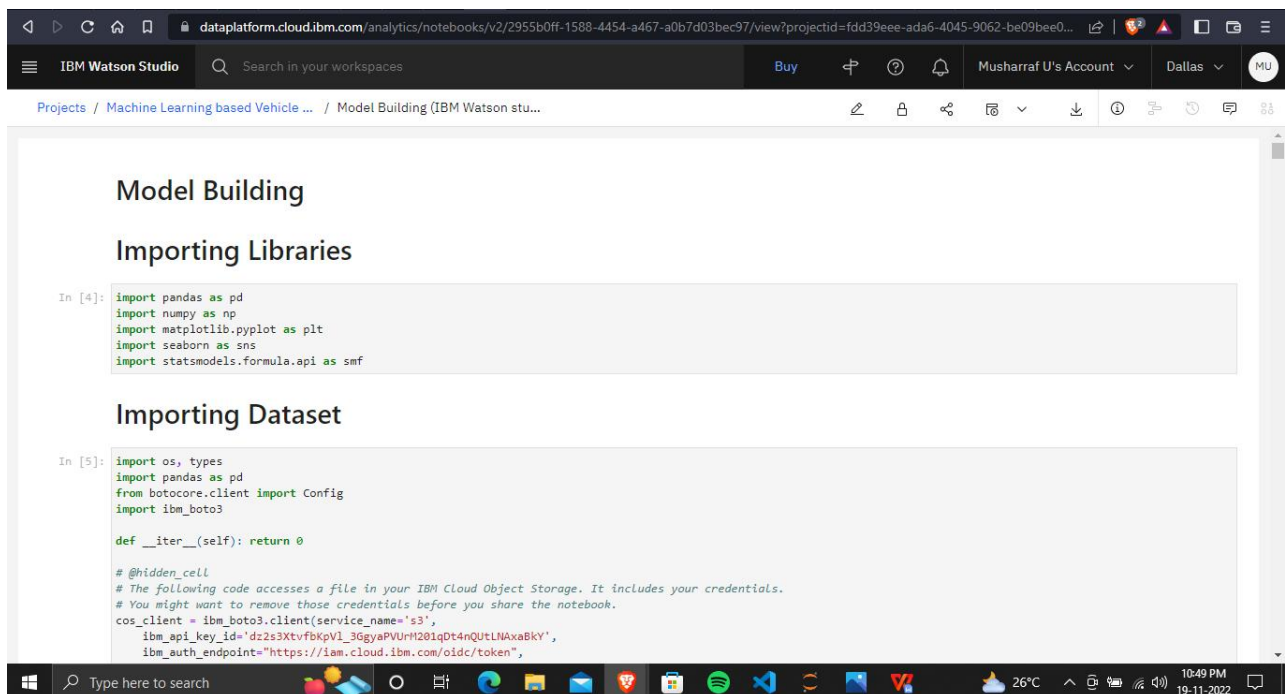
2. Model for Vehicle performance has been created using Jupyter Notebook.



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 "Projects / Machine Learning based Vehicle ..." and features tabs for Overview, Assets, Jobs, and Manage. The Assets tab is active, displaying a list of assets. On the left, there is a sidebar with "Find assets" and "Asset types" (Data, Notebooks). The main list shows two assets: "Model Building (IBM Watson studio)" and "car performance.csv". A "Data in this project" panel on the right provides a drop zone for data files. The bottom of the image shows a Windows taskbar with various application icons and system information.

Name	Last modified
Model Building (IBM Watson studio) Notebook	Now Modified by you
car performance.csv CSV	1 hour ago Modified by you

Dataset: Car_performance.csv



The screenshot displays a Jupyter Notebook within the IBM Watson Studio environment. The notebook is titled "Model Building" and "Importing Libraries". It contains two code cells. The first cell imports various libraries including pandas, numpy, matplotlib, seaborn, and statsmodels. The second cell imports boto3 and Config, and defines a function to access IBM Cloud Object Storage. The bottom of the image shows a Windows taskbar with various application icons and system information.

```
In [4]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import statsmodels.formula.api as smf
```

```
In [5]: import os, types
import pandas as pd
from botocore.client import Config
import ibm_boto3

def __iter__(self): return 0

# @hidden_cell
# The following code accesses a file in your IBM Cloud Object Storage. It includes your credentials.
# You might want to remove those credentials before you share the notebook.
cos_client = ibm_boto3.client(service_name='s3',
                              ibm_api_key_id='dz2s3XtvfbkpV1_3GgyaPVUvH201qDt4nQtULNAXa8KY',
                              ibm_auth_endpoint='https://iam.cloud.ibm.com/oidc/token',
```

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

The screenshot displays the IBM Watson Studio interface. At the top, the browser address bar shows the URL `dataplatfrom.cloud.ibm.com/ml-runtime/spaces?context=cpdaas`. The header includes the IBM Watson Studio logo, a search bar, and user account information for 'Musharraf U's Account' in 'Dallas'. The main heading is 'Deployments' with a sub-header '1 space'. A blue button labeled 'New deployment space' is in the top right. Below this, there are tabs for 'Activity' and 'Spaces', with 'Spaces' being the active tab. A filter bar shows 'All spaces' selected. A table lists the deployment spaces:

Name	Last modified	Your role	Collaborators	Tags	Online deployments	Jobs
model	Nov 19, 2022, 7:58 PM	Admin	MU		0	0

The bottom of the image shows a Windows taskbar with various application icons and a system clock indicating 10:50 PM on 19-11-2022.