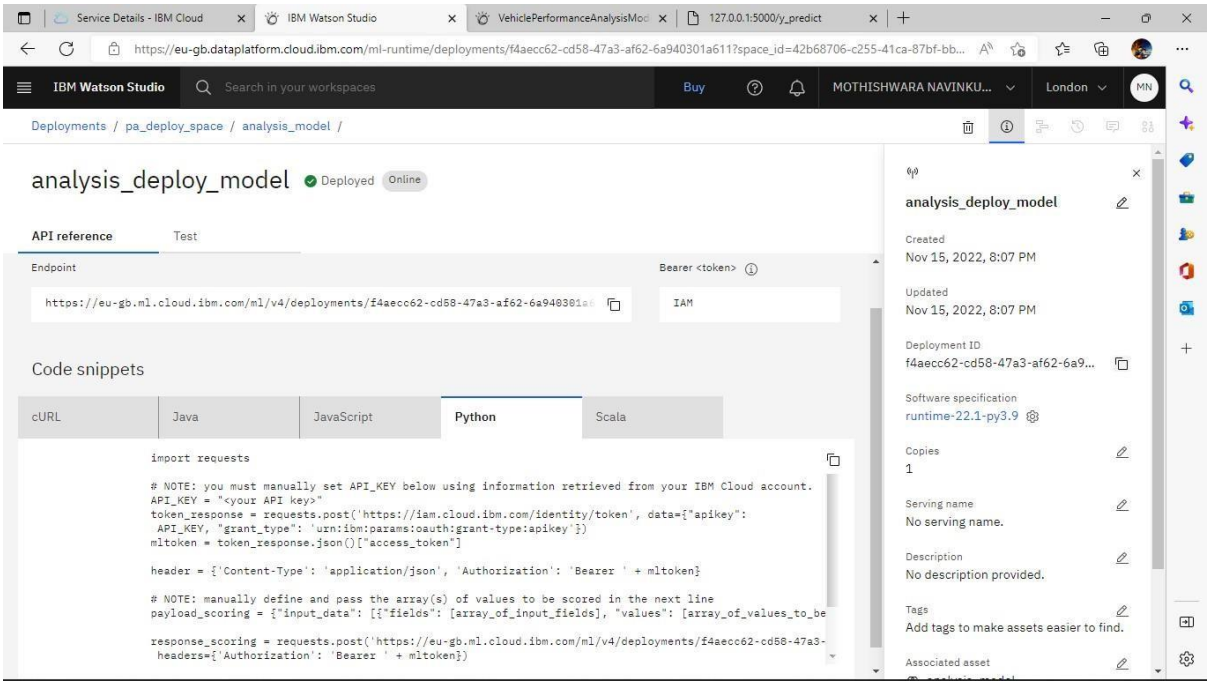
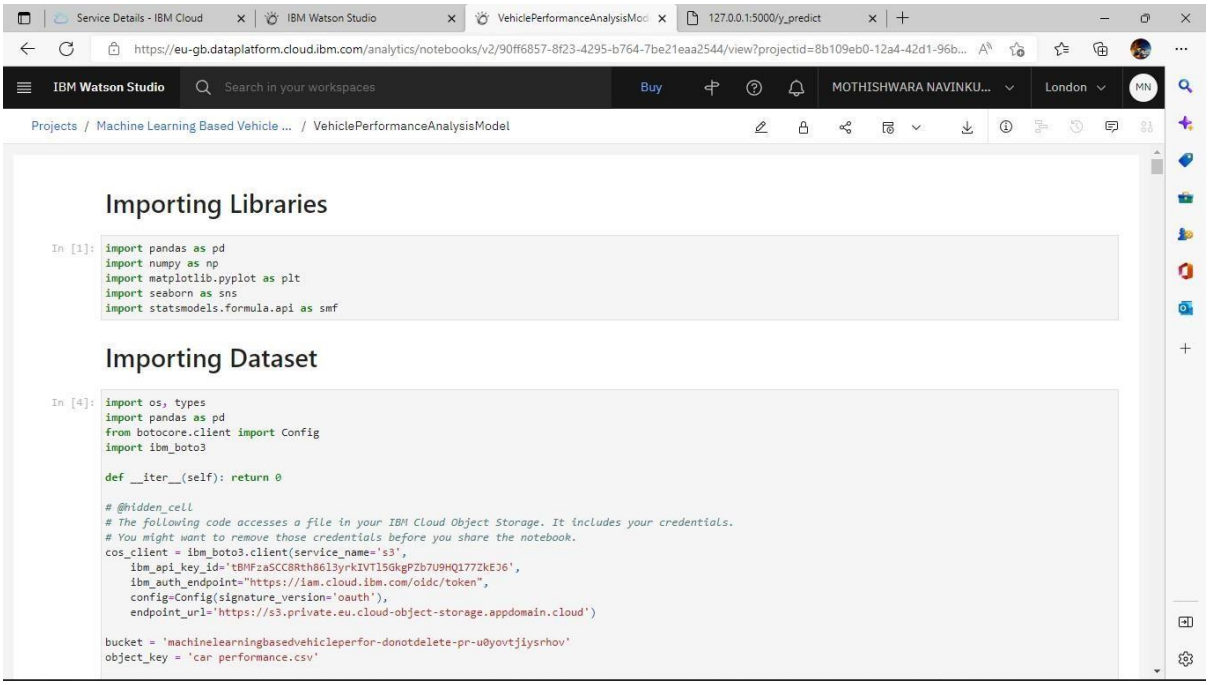
DEPLOY ON IBM CLOUD OUTPUT

Date	16 November 2022
Team ID	PNT2022TMID07584
Project Name	Project – Machine Learning based Vehicle Performance Analyzer


Service Details - IBM Cloud
IBM Watson Studio
VehiclePerformanceAnalysisMod
127.0.0.1:5000/y_predict
https://eu-gb.dataplatform.cloud.ibm.com/ml-runtime/deployments/f4aecc62-cd58-47a3-af62-6a940301a611?space_id=42b68706-c255-41ca-87bf-bb...
IBM Watson Studio
Search in your workspaces
Buy
MOTHISHWARA NAVINKU...
London
MN
Deployments / pa_deploy_space / analysis_model /
analysis_deploy_model
Deployed
Online
API reference
Test
Endpoint
https://eu-gb.ml.cloud.ibm.com/ml/v4/deployments/f4aecc62-cd58-47a3-af62-6a940301a6
Bearer <token>
IAM
Code snippets
cURL
Java
JavaScript
Python
Scala
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": [{"fields": [array_of_input_fields], "values": [array_of_values_to_be
response_scoring = requests.post('https://eu-gb.ml.cloud.ibm.com/ml/v4/deployments/f4aecc62-cd58-47a3-
headers={'Authorization': 'Bearer ' + mltoken})
analysis_deploy_model
Created
Nov 15, 2022, 8:07 PM
Updated
Nov 15, 2022, 8:07 PM
Deployment ID
f4aecc62-cd58-47a3-af62-6a9...
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


Service Details - IBM Cloud
IBM Watson Studio
VehiclePerformanceAnalysisMod
127.0.0.1:5000/y_predict
https://eu-gb.dataplatform.cloud.ibm.com/analytics/notebooks/v2/90ff6857-8f23-4295-b764-7be21eaa2544/view?projectid=8b109eb0-12a4-42d1-96b...
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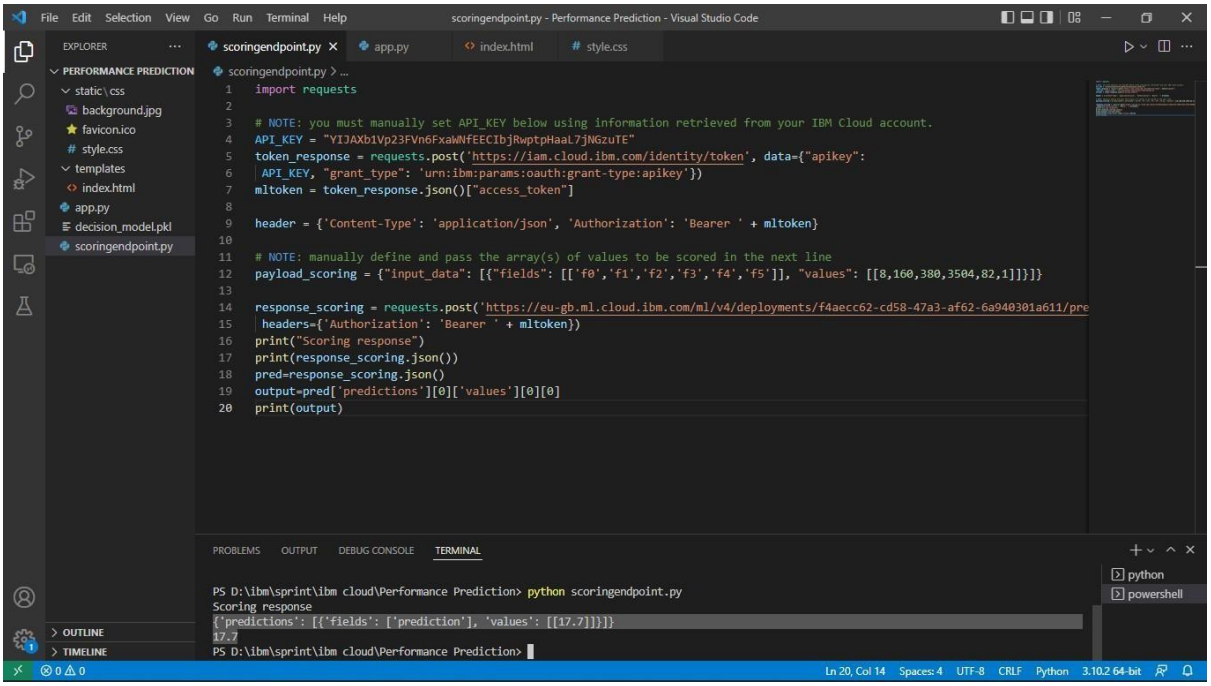
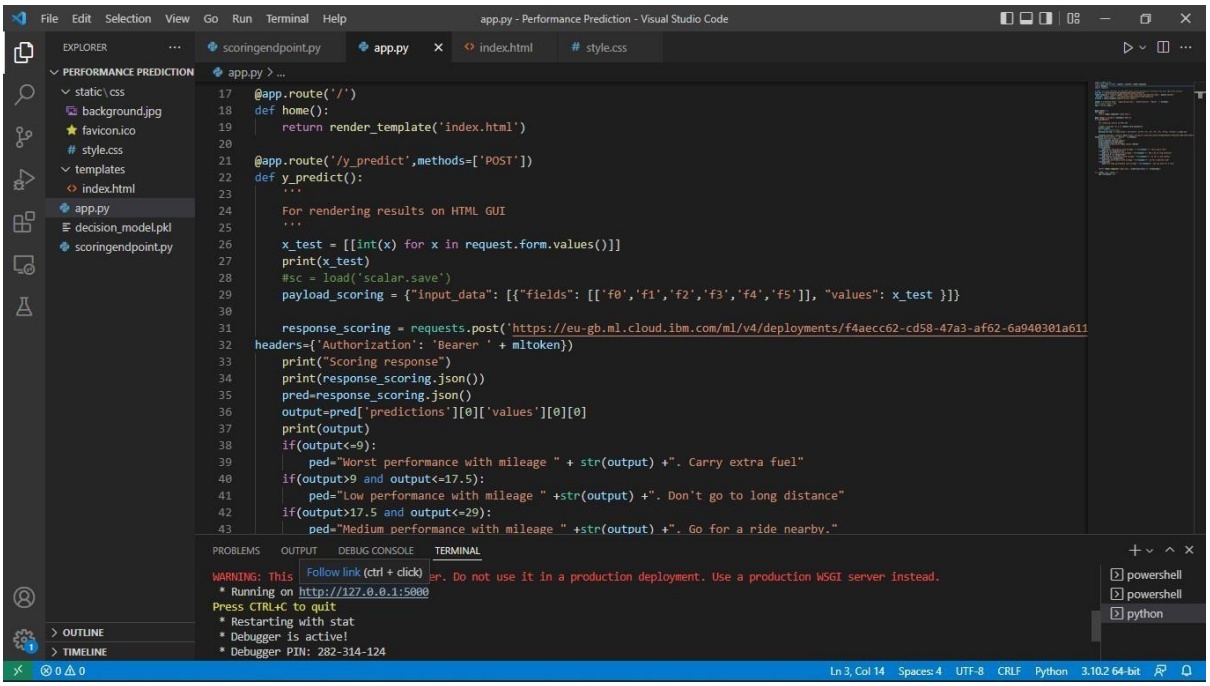
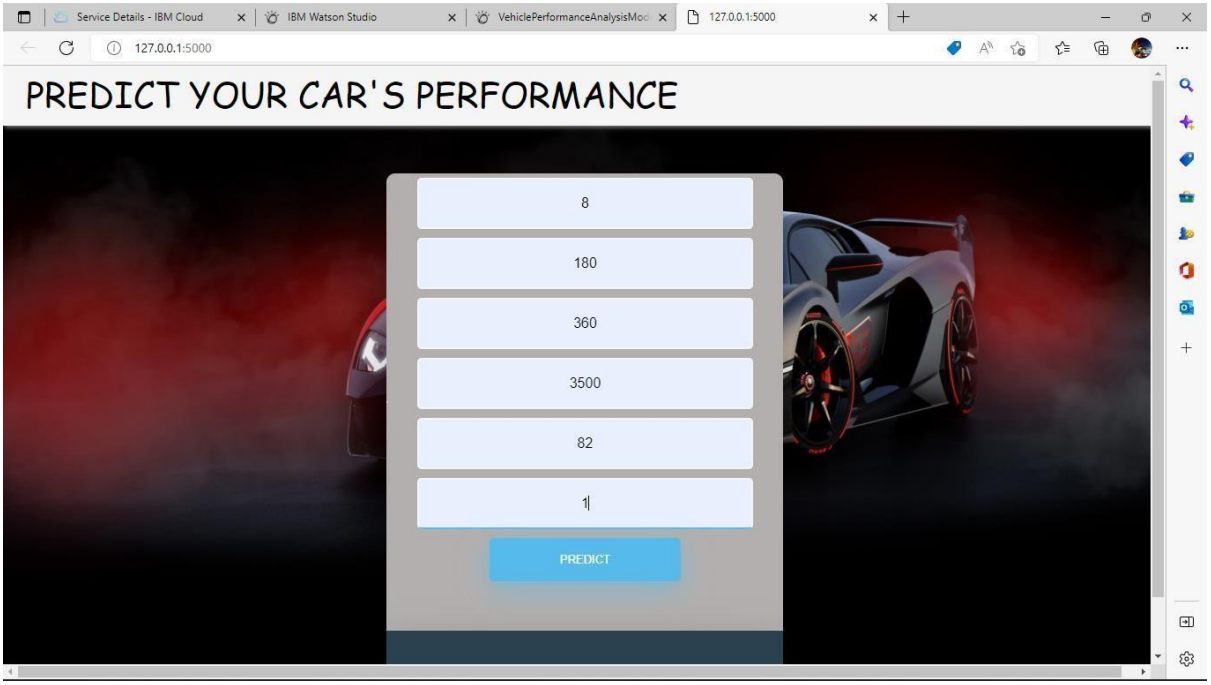
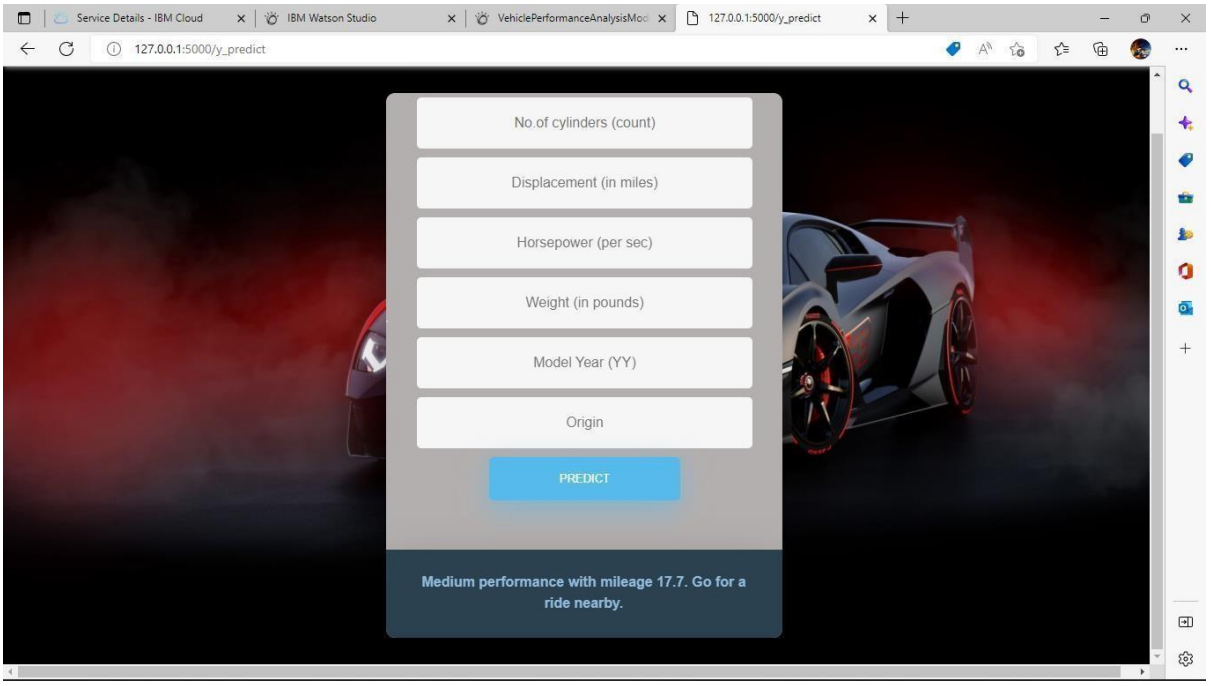
Projects / Machine Learning Based Vehicle ... / VehiclePerformanceAnalysisModel
Importing Libraries
In [1]:
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import statsmodels.formula.api as smf
Importing Dataset
In [4]:
import os, types
import pandas as pd
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='tBMFzaSCC8Rth86l3yrkIVTl5GkgPZb7U9HQ177ZkEJ6',
ibm_auth_endpoint="https://iam.cloud.ibm.com/oidc/token",
config=Config(signature_version='oauth'),
endpoint_url='https://s3.private.eu.cloud-object-storage.appdomain.cloud')
bucket = 'machinelearningbasedvehicleperfor-donotdelete-pr-u0yovtjiysrhov'
object_key = 'car performance.csv'


File Edit Selection View Go Run Terminal Help
scoringendpoint.py - Performance Prediction - Visual Studio Code
EXPLORER
PERFORMANCE PREDICTION
static\css
background.jpg
favicon.ico
style.css
templates
index.html
app.py
decision_model.pkl
scoringendpoint.py
scoringendpoint.py
app.py
index.html
style.css
scoringendpoint.py > ...
1 import requests
2
3 # NOTE: you must manually set API_KEY below using information retrieved from your IBM Cloud account.
4 API_KEY = "YIJAXb1Vp23FVn6FxaWNfEECIbjRwptpHaaL7jNGzuTE"
5 token_response = requests.post('https://iam.cloud.ibm.com/identity/token', data={"apikey":
6 API_KEY, "grant_type": 'urn:ibm:params:oauth:grant-type:apikey'})
7 mltoken = token_response.json()["access_token"]
8
9 header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' + mltoken}
10
11 # NOTE: manually define and pass the array(s) of values to be scored in the next line
12 payload_scoring = {"input_data": [{"fields": [['f0','f1','f2','f3','f4','f5']], "values": [[8,160,380,3504,82,1]]}]}
13
14 response_scoring = requests.post('https://eu-gb.ml.cloud.ibm.com/ml/v4/deployments/f4aecc62-cd58-47a3-af62-6a940301a611/pre
15 headers={'Authorization': 'Bearer ' + mltoken})
16 print("Scoring response")
17 print(response_scoring.json())
18 pred=response_scoring.json()
19 output=pred['predictions'][0]['values'][0][0]
20 print(output)
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
PS D:\ibm\sprint\ibm cloud\Performance Prediction> python scoringendpoint.py
Scoring response
{'predictions': [{'fields': ['prediction'], 'values': [[17.7]]}]}
17.7
PS D:\ibm\sprint\ibm cloud\Performance Prediction>
python
powershell
OUTLINE
TIMELINE
Ln 20, Col 14 Spaces: 4 UTF-8 CRLF Python 3.10.2 64-bit


File Edit Selection View Go Run Terminal Help
app.py - Performance Prediction - Visual Studio Code
EXPLORER
PERFORMANCE PREDICTION
static\css
background.jpg
favicon.ico
style.css
templates
index.html
app.py
decision_model.pkl
scoringendpoint.py
scoringendpoint.py
app.py
index.html
style.css
app.py > ...
17 @app.route('/')
18 def home():
19 return render_template('index.html')
20
21 @app.route('/y_predict',methods=['POST'])
22 def y_predict():
23 '''
24 For rendering results on HTML GUI
25 '''
26 x_test = [[int(x) for x in request.form.values()]]
27 print(x_test)
28 #sc = load('scalar.save')
29 payload_scoring = {"input_data": [{"fields": [['f0','f1','f2','f3','f4','f5']], "values": x_test }]}
30
31 response_scoring = requests.post('https://eu-gb.ml.cloud.ibm.com/ml/v4/deployments/f4aecc62-cd58-47a3-af62-6a940301a611
32 headers={'Authorization': 'Bearer ' + mltoken})
33 print("Scoring response")
34 print(response_scoring.json())
35 pred=response_scoring.json()
36 output=pred['predictions'][0]['values'][0][0]
37 print(output)
38 if(output<=9):
39 ped="Worst performance with mileage " + str(output) +". Carry extra fuel"
40 if(output>9 and output<=17.5):
41 ped="Low performance with mileage " +str(output) +". Don't go to long distance"
42 if(output>17.5 and output<=29):
43 ped="Medium performance with mileage " +str(output) +". Go for a ride nearby."
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
WARNING: This Follow link (ctrl + click) er. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://127.0.0.1:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 282-314-124
powershell
powershell
python
OUTLINE
TIMELINE
Ln 3, Col 14 Spaces: 4 UTF-8 CRLF Python 3.10.2 64-bit





Demonstration Link

[Click here to see video For IBM Cloud Deployment Demonstration]