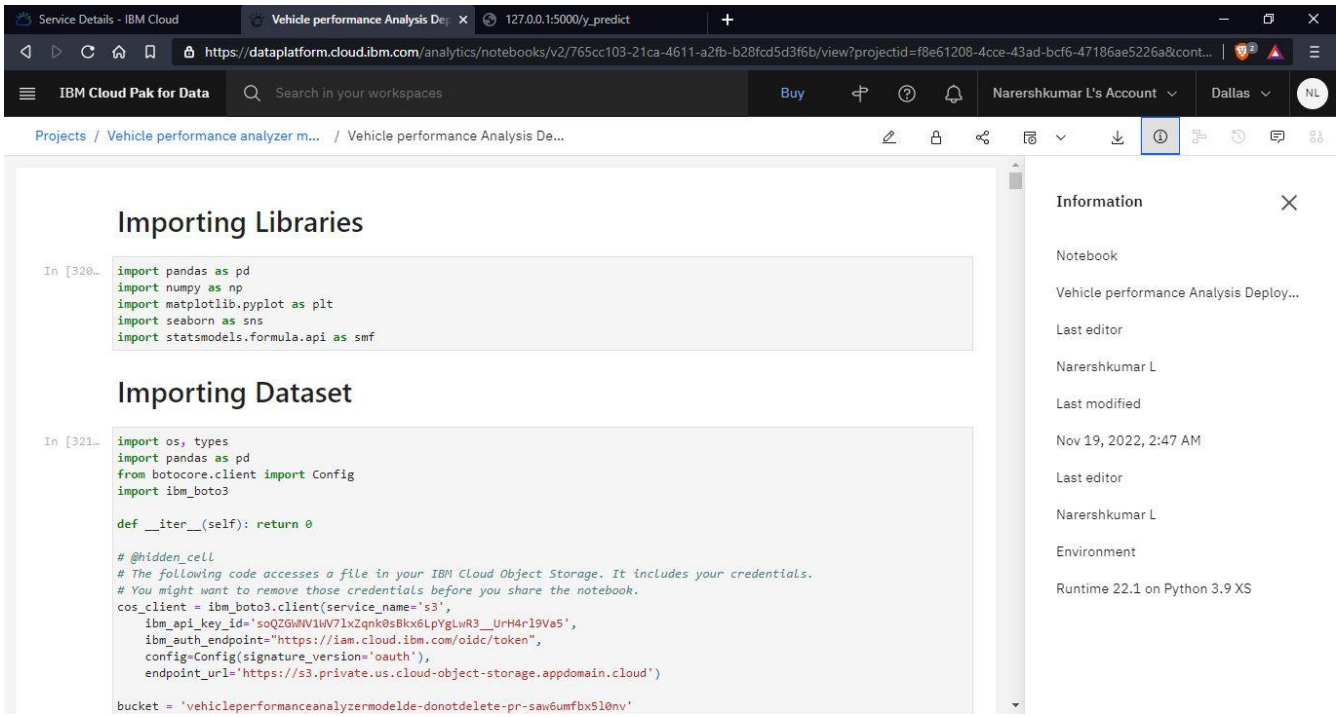
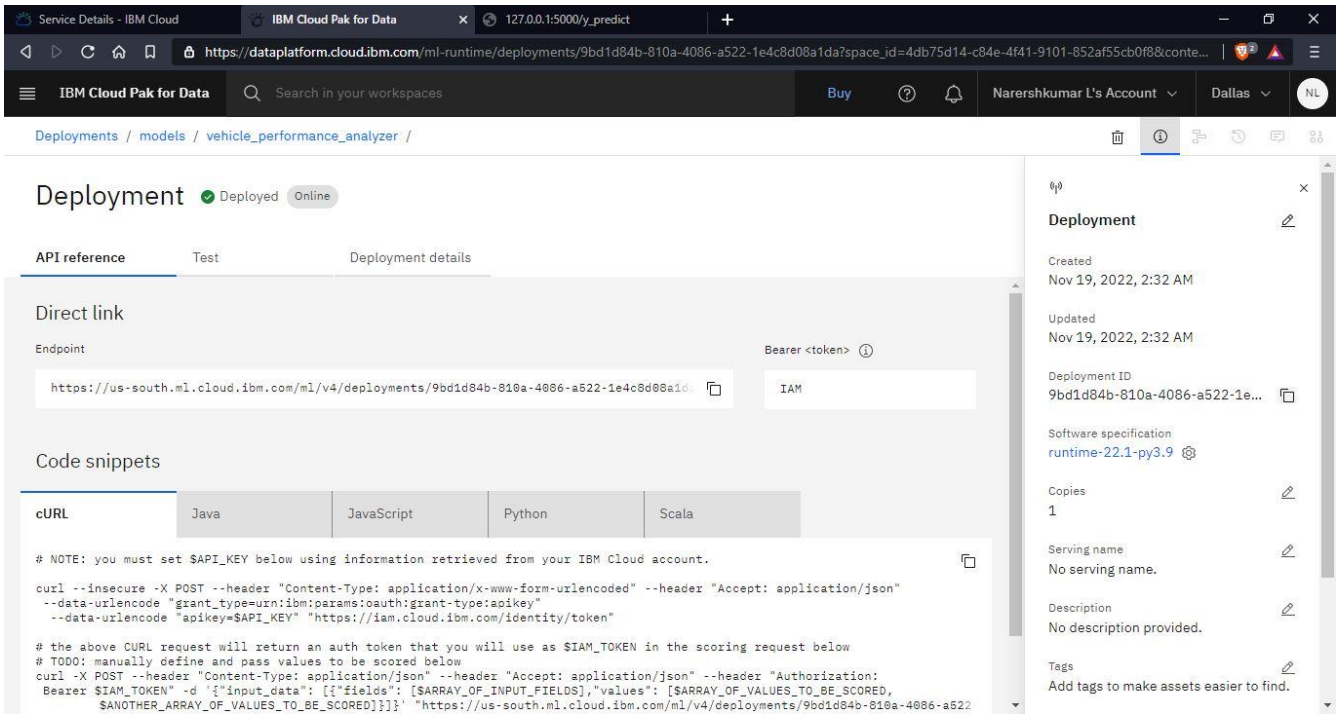
IBM CLOUD DEPLOYMENT

Date	18 November 2022
Team ID	PNT2022TMID25852
Project Name	Machine Learning based vehicle performance analyzer




Service Details - IBM Cloud
IBM Cloud Pak for Data
127.0.0.1:5000/y_predict
https://dataplatform.cloud.ibm.com/ml-runtime/deployments/9bd1d84b-810a-4086-a522-1e4c8d08a1da?space_id=4db75d14-c84e-4f41-9101-852af55cb0f8&conte...
IBM Cloud Pak for Data
Search in your workspaces
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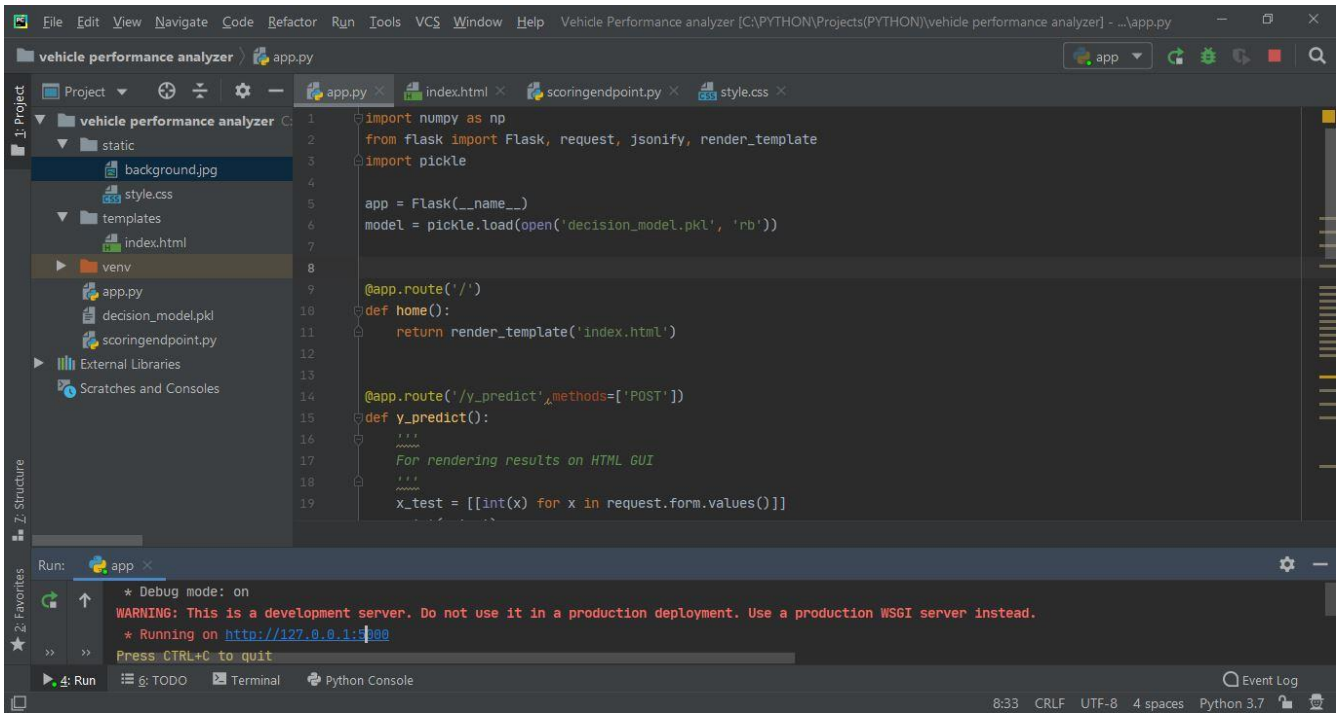
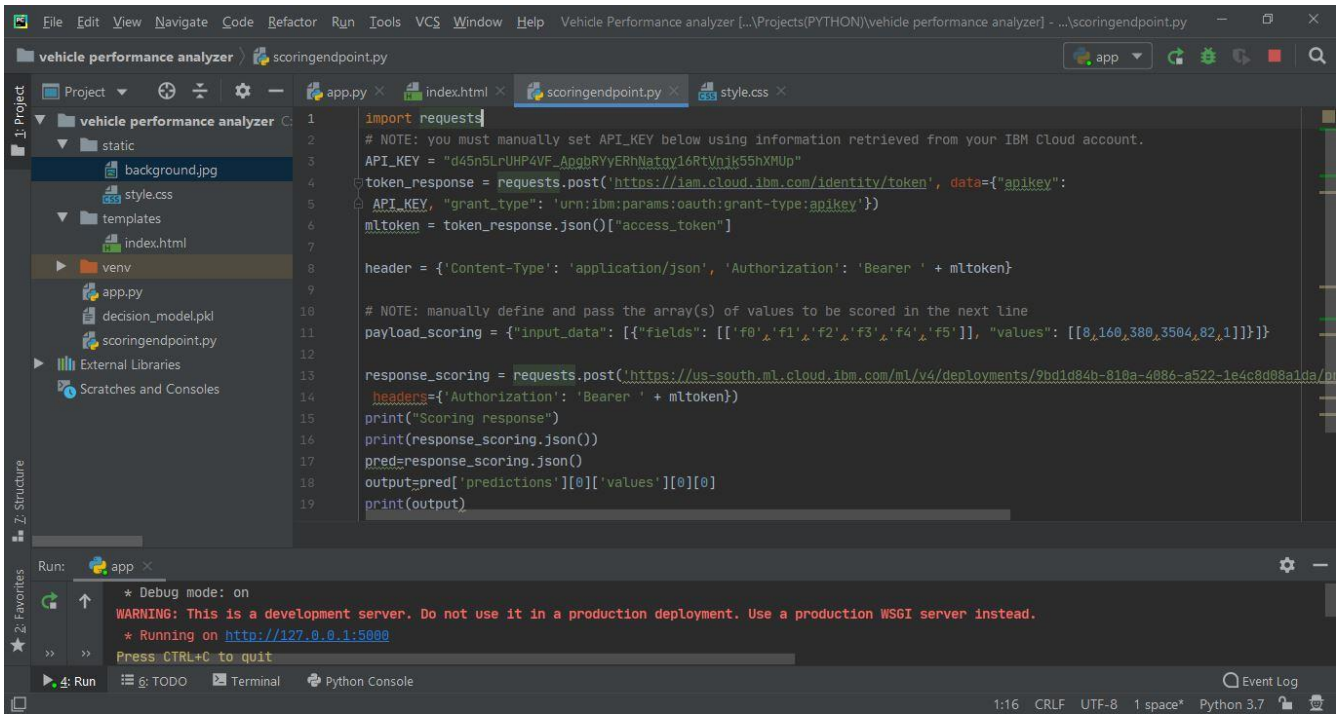
Dallas
Deployments / models / vehicle_performance_analyzer /
Deployment
Deployed
Online
API reference
Test
Deployment details
Direct link
Endpoint
https://us-south.ml.cloud.ibm.com/ml/v4/deployments/9bd1d84b-810a-4086-a522-1e4c8d08a1d
Bearer <token>
IAM
Code snippets
cURL
Java
JavaScript
Python
Scala
NOTE: you must set $API_KEY below using information retrieved from your IBM Cloud account.
curl --insecure -X POST --header "Content-Type: application/x-www-form-urlencoded" --header "Accept: application/json"
--data-urlencode "grant_type=urn:ibm:params:oauth:grant-type:apikey"
--data-urlencode "apikey=$API_KEY" "https://iam.cloud.ibm.com/identity/token"
the above CURL request will return an auth token that you will use as $IAM_TOKEN in the scoring request below
TODO: manually define and pass values to be scored below
curl -X POST --header "Content-Type: application/json" --header "Accept: application/json" --header "Authorization:
Bearer $IAM_TOKEN" -d '{"input_data": [{"fields": [$ARRAY_OF_INPUT_FIELDS],"values": [$ARRAY_OF_VALUES_TO_BE_SCORED,
$ANOTHER_ARRAY_OF_VALUES_TO_BE_SCORED]}]}' "https://us-south.ml.cloud.ibm.com/ml/v4/deployments/9bd1d84b-810a-4086-a522
Deployment
Created
Nov 19, 2022, 2:32 AM
Updated
Nov 19, 2022, 2:32 AM
Deployment ID
9bd1d84b-810a-4086-a522-1e...
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.


File Edit View Navigate Code Refactor Run Tools VCS Window Help
Vehicle Performance analyzer [C:\PYTHON\Projects(PYTHON)\vehicle performance analyzer] - ...\app.py
vehicle performance analyzer
app.py
app
Project
app.py
index.html
scoringendpoint.py
style.css
vehicle performance analyzer
static
background.jpg
style.css
templates
index.html
venv
app.py
decision_model.pkl
scoringendpoint.py
External Libraries
Scratches and Consoles
import numpy as np
from flask import Flask, request, jsonify, render_template
import pickle
app = Flask(__name__)
model = pickle.load(open('decision_model.pkl', 'rb'))
@app.route('/')
def home():
return render_template('index.html')
@app.route('/y_predict',methods=['POST'])
def y_predict():
'''
For rendering results on HTML GUI
'''
x_test = [[int(x) for x in request.form.values()]]
Run:
app
* Debug mode: on
WARNING: This is a development server. 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
4: Run
6: TODO
Terminal
Python Console
Event Log
8:33
CRLF
UTF-8
4 spaces
Python 3.7


File Edit View Navigate Code Refactor Run Tools VCS Window Help Vehicle Performance analyzer [...\Projects(PYTHON)\vehicle performance analyzer] - ...\scoringendpoint.py
vehicle performance analyzer
scoringendpoint.py
app
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vehicle performance analyzer
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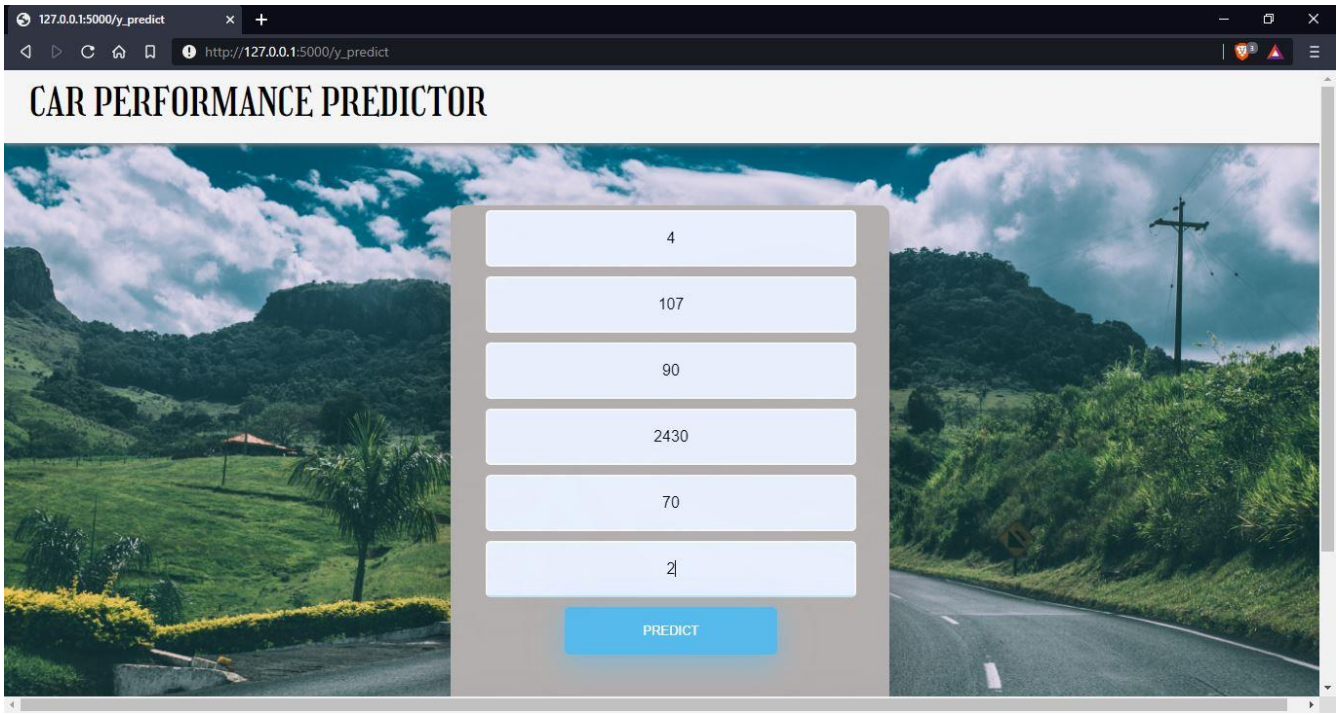
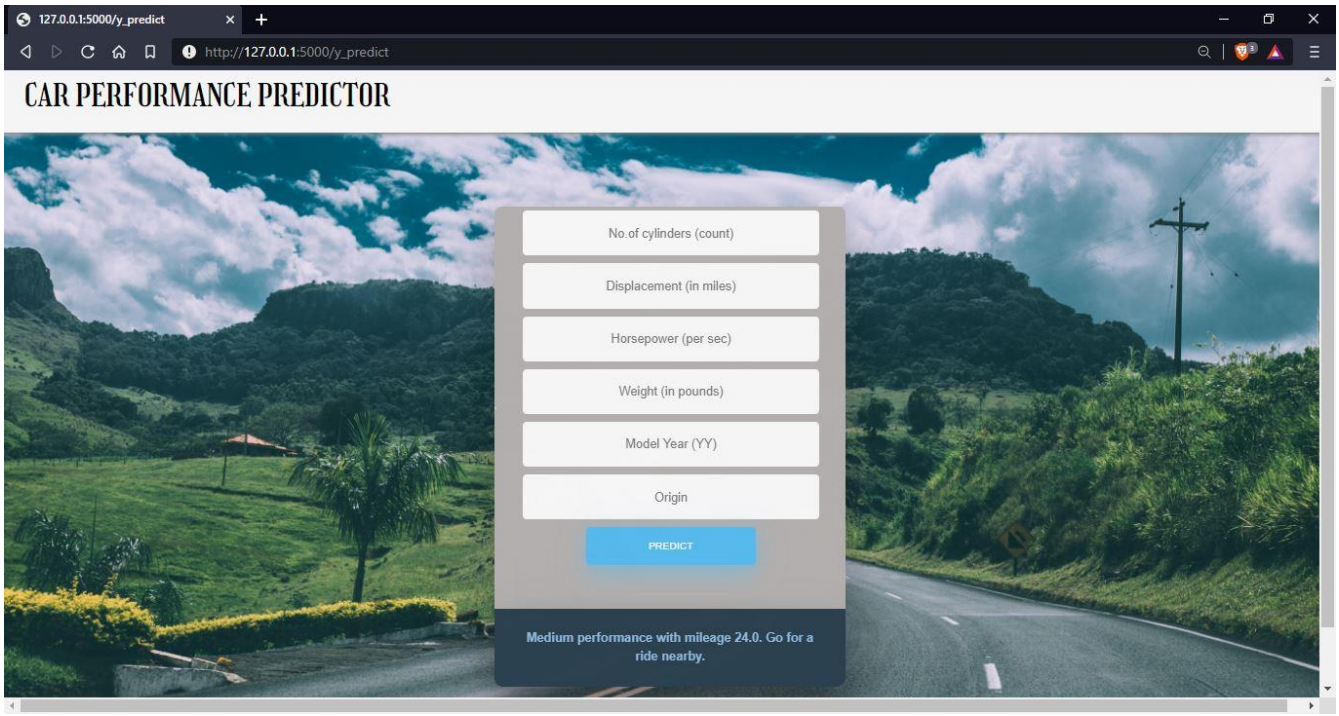
External Libraries
Scratches and Consoles
import requests
# NOTE: you must manually set API_KEY below using information retrieved from your IBM Cloud account.
API_KEY = "d45n5LrUHP4VF_ApgbRYyERhNatqy16RtVnjk55hXMUp"
token_response = requests.post('https://iam.cloud.ibm.com/identity/token', data={"apikey":
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": [['f0','f1','f2','f3','f4','f5']], "values": [[8,160,380,3504,82,1]]}]}
response_scoring = requests.post('https://us-south.ml.cloud.ibm.com/ml/v4/deployments/9bd1d84b-810a-4086-a522-1e4c8d08a1da/p
headers={'Authorization': 'Bearer ' + mltoken})
print("Scoring response")
print(response_scoring.json())
pred=response_scoring.json()
output=pred['predictions'][0]['values'][0][0]
print(output)
Run: app
* Debug mode: on
WARNING: This is a development server. 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
4: Run
6: TODO
Terminal
Python Console
Event Log
1:16 CRLF UTF-8 1 space* Python 3.7


127.0.0.1:5000/y_predict
http://127.0.0.1:5000/y_predict
CAR PERFORMANCE PREDICTOR
4
107
90
2430
70
2
PREDICT


127.0.0.1:5000/y_predict
http://127.0.0.1:5000/y_predict
CAR PERFORMANCE PREDICTOR
No.of cylinders (count)
Displacement (in miles)
Horsepower (per sec)
Weight (in pounds)
Model Year (YY)
Origin
PREDICT
Medium performance with mileage 24.0. Go for a ride nearby.