

APPLICATION BUILDING

BUILDING THE PYTHON FLASK APP

Date	17 November 2022
Team Id	917719C051, 917719C069, 917719C079, 917719C136
Project Name	Project – Car Resale Value Prediction

In this sprint, the code for the flask application is developed.

CODE:

```
from flask import Flask,render_template,request,redirect
from flask_cors import CORS,cross_origin
from gevent.pywsgi import WSGIServer
import os

import pickle
import pandas as pd
import numpy as np

API_KEY = "5166agKSvfJPWAARH8s_Lneamj5lxktt36YQwC5rLD0w"
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}

app=Flask(__name__)
cors=CORS(app)
model=pickle.load(open('LinearRegressionModel.pkl','rb'))
car=pd.read_csv('Cleaned_Car_data.csv')

@app.route('/',methods=['GET','POST'])
def index():
    companies=sorted(car['company'].unique())
    car_models=sorted(car['name'].unique())
    year=sorted(car['year'].unique(),reverse=True)
    fuel_type=car['fuel_type'].unique()

    companies.insert(0,'Select Company')
    return render_template('index.html',companies=companies,
car_models=car_models, years=year,fuel_types=fuel_type)
```

```

@app.route('/predict',methods=['POST'])
@cross_origin()
def predict():

    company=request.form.get('company')

    car_model=request.form.get('car_models')
    year=request.form.get('year')
    fuel_type=request.form.get('fuel_type')
    driven=request.form.get('kilo_driven')

    prediction=model.predict(pd.DataFrame(columns=['name', 'company',
'year', 'kms_driven', 'fuel_type'],

data=np.array([car_model,company,year,driven,fuel_type]).reshape(1, 5)))
    print(prediction)

    return str(np.round(prediction[0],2))

if __name__=='__main__':
    app.secret_key = os.urandom(12)
    app.run(debug=True, host='0.0.0.0', port=port)

```

The screenshot shows an Anaconda Prompt terminal window with the following output:

```

Uploaded droplet (166.2M)
Uploading complete
Cell f5100de9-482f-46d0-8936-1825bab8aala stopping instance 26d117d3-d0da-42b8-a722-73c838a5b70e
Cell f5100de9-482f-46d0-8936-1825bab8aala destroying container for instance 26d117d3-d0da-42b8-a722-73c838a5b70e
Cell f5100de9-482f-46d0-8936-1825bab8aala successfully destroyed container for instance 26d117d3-d0da-42b8-a722-73c838a5b70e

Waiting for app to start...

name: Python Flask App VKPHE 2022-11-18
requested state: started
routes: python-flask-app-vkphe-2022-11-18.us-south.cf.appdomain.cloud
last uploaded: Fri 18 Nov 14:59:03 IST 2022
stack: cflinuxfs3
buildpacks: python

type: web
instances: 1/1
memory usage: 512M
start command: python manage.py start 0.0.0.0:$PORT
state since cpu memory disk details
#0 running 2022-11-18T09:31:56Z 0.0% 0 of 512M 155.6M of 1.5G

(base) C:\Users\renish\Downloads\python-flask-app-vkphe-2022-11-18>cf logs "Python Flask App VKPHE 2022-11-18"
Retrieving logs for app Python Flask App VKPHE 2022-11-18 in org renish / space dev as renish@student.tce.edu...

2022-11-18T15:06:43.44+0530 [CELL/0] OUT Cell fdcffe1a-b8ad-46a5-a082-a26ea4912851 successfully destroyed container f
or instance e1c42ba2-51d7-44c8-4545-20ea

```

Python Flask App EDMGV 2022-11-18

Details

App URL: <https://python-flask-app-edmgv-2022-11-18.mybluemix.net>

Source: <https://us-south.git.cloud.ibm.com/renish/PythonFlaskAppEDMGV2022-11-18>

Resource group: Default

Deployment target: Python Flask App EDMGV 2022-11-18

Created: 11/18/2022

Services

Watson Machine Learning

Open dashboard Documentation API reference

Credentials

Connect existing services Create service

Anaconda Prompt (Anacon)

```
Uploading droplet...
Uploading build artifacts cache...
Uploaded build artifacts cache (65.3M)
Uploading droplet (67.8M)
Uploading complete
Cell ed57f560-073e-48e1-a5b8-e42888f07850 stopping instance 4d7fb2d1-287a-442b-9d52-beb2f5019e89
Cell ed57f560-073e-48e1-a5b8-e42888f07850 destroying container for instance 4d7fb2d1-287a-442b-9d52-beb2f5019e89
Cell ed57f560-073e-48e1-a5b8-e42888f07850 successfully destroyed container for instance 4d7fb2d1-287a-442b-9d52-beb2f5019e89
Waiting for app to start...
name: Python Flask App EDMGV 2022-11-18
requested state: started
routes: python-flask-app-edmgv-2022-11-18.mybluemix.net
last uploaded: Fri 18 Nov 16:33:48 IST 2022
stack: cflinuxfs3
buildpacks: python

type: web
instances: 1/1
memory usage: 512M
start command: python manage.py start 0.0.0.0:$PORT
state since cpu memory disk
#0 running 2022-11-18T11:04:37Z 0.3% 57.9M of 512M 241.4M of 1.5G details

(base) C:\Users\renish\Downloads\python-flask-app-vkphe-2022-11-18>
```

Python Flask App EDMGV 2022-11-18

Details

App URL: <https://python-flask-app-edmgv-2022-11-18.mybluemix.net>

Source: <https://us-south.git.cloud.ibm.com/renish/PythonFlaskAppEDMGV2022-11-18>

Resource group: Default

Deployment target: Python Flask App EDMGV 2022-11-18

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Credentials

Connect existing services Create service

Deployment Automation

Name: PythonFlaskAppEDMGV2022-11-18

Location: Dallas

Tool integrations

Delivery Pipelines

Name: ci-pipeline

Status: Success

Name: pr-pipeline

Status: No stages detected