PROJECT DEVELOPMENT PHASE

DELIVERY OF SPRINT – 4

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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_Lneamj5Ixktt36YQwC5rLD0w"
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)
```