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LISUM12

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<https://github.com/Nuri-Tas/VC/tree/main/Flask>

```
1 import numpy as np
2 import pandas as pd
3 from sklearn.model_selection import train_test_split
4 from sklearn.linear_model import LinearRegression
5 import pickle
6
7 dataset = pd.read_csv('C:/Users/Lenovo/Desktop/TSA_Kaggle/tunnel.csv')
8 dataset['lag'] = dataset.NumVehicles.shift(1)
9
10 X = dataset.loc[:, ['lag']].values
11 y = dataset.loc[:, ['NumVehicles']].values
12 # Splitting the dataset into the Training set and Test set
13 X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=1/3, random_state=0)
14 # Fitting Simple Linear Regression to the Training set
15 regressor = LinearRegression()
16 regressor.fit(X_train, y_train)
17 # Predicting the Test set results
18 y_pred = regressor.predict(X_test)
19 # Saving model to disk
20 pickle.dump(regressor, open('model.pkl', 'wb'))
21 # Loading model to compare the results
22 model = pickle.load(open('model.pkl', 'rb'))

PS C:\Users\Lenovo\repos_dg\VC> python flask_deployment.py
* Detected change in 'C:\\Users\\Lenovo\\repos_dg\\VC\\flask_deployment.py', reloading
* Detected change in 'C:\\Users\\Lenovo\\repos_dg\\VC\\flask_deployment.py', reloading
* Restarting with watchdog (windowsapi)
[[46179.1033627]]
* Debugger is active!
* Debugger PIN: 852-363-601
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

```

from flask import Flask, request, jsonify
import pickle
app = Flask(__name__)
# Load the model
model = pickle.load(open('model.pkl', 'rb'))
@app.route('/api', methods=['POST'])
def predict():
    # Get the data from the POST request.
    data = request.get_json(force=True)
    # Make prediction using model loaded from disk as per the data.
    prediction = model.predict([[np.array(data['exp'])]])
    # Take the first value of prediction
    output = prediction[0]
    return jsonify(output)
if __name__ == '__main__':
    app.run(port=5000, debug=True)

```

```

import requests
url = 'http://localhost:5000/api'
r = requests.post(url, json={'exp': 1.8})
print(r.json())

```