

OJECT DEVELOPMENT PHASE

Sprint - IV

Date	07-Nov-2022
Team ID	PNT2022TMID02840
Project Name	Developing a Flight Delay Model Using Machine Learning
Maximum Marks	8 Marks

Integration the Deployed Model with Flask

Web Application

App.py

```
C:\Users\jgresh\Python\project\app.py
index.html x App.py x Predict.html x
4 import pickle
5 import os
6 import requests
7
8 # NOTE: you must manually set API KEY below using information retrieved from your IBM Cloud account.
9 API_KEY = 'x3-9d/cq4b0h3rv2c_A0fca8i0g9u8U5pc5fA0gptc'
10 token_response = requests.post('https://iam.cloud.ibm.com/identity/token', data={'apikey': API_KEY, 'grant_type': 'urn:ibm:params:oauth:grant-type:apikey'})
11 mltoken = token_response.json()['access_token']
12
13 header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' + mltoken}
14
15 appFlask( __name__ )
16
17 @app.route('/')
18 def home():
19     return render_template('index.html')
20
21 @app.route('/predicts', methods=['POST', 'GET'])
22 def predict():
23     name=request.form['name']
24     month=request.form['month']
25     dayofmonth=request.form['dayofmonth']
26     dayofweek=request.form['dayofweek']
27     origin=request.form['origin']
28     if (origin=="MSP"):
29         origin,origin2,origin3,origin4,origin5=0,0,0,0,1
30     if (origin=="DCA"):
31         origin,origin2,origin3,origin4,origin5=1,0,0,0,0
32     if (origin=="JFK"):
33         origin,origin2,origin3,origin4,origin5=0,1,0,0,0
34     if (origin=="LAX"):
35         origin,origin2,origin3,origin4,origin5=0,1,0,0,0
36     if (origin=="LIT"):
37         origin,origin2,origin3,origin4,origin5=0,0,0,1,0
38
39     destination=request.form['destination']
40     if (destination=="MSP"):
41         destination1,destination2,destination3,destination4,destination5=0,0,0,0,1
42     if (destination=="DCA"):
43         destination1,destination2,destination3,destination4,destination5=1,0,0,0,0
44     if (destination=="JFK"):
45         destination1,destination2,destination3,destination4,destination5=0,1,0,0,0
46     if (destination=="LAX"):
47         destination1,destination2,destination3,destination4,destination5=0,1,0,0,0
48     if (destination=="LIT"):
49         destination1,destination2,destination3,destination4,destination5=0,1,0,0,0
50
51     dept=request.form['dept']
52     arrtime=request.form['arrtime']
53     actdept=request.form['actdept']
54     #dept1 = int(dept) - int(actdept)
55     total=[name,month,dayofmonth,dayofweek,origin,origin2,origin3,origin4,origin5,destination1,destination2,destination3,destination4,destination5,dept,arrtime]
56     # payload = {'predictions': total}
57     # print(payload)
58
59     payload_scoring = {'input_data': [{"fields": [{"name": 'month', 'dayofmonth', 'dayofweek', 'origin', 'origin2', 'origin3', 'origin4', 'origin5', 'destination1', 'destination2', 'destination3', 'destination4', 'destination5', 'dept', 'arrtime'}]}]}
60     response_scoring = requests.post('https://us-south-ibm.cloud.ibm.com/v1/deployments/a7202f-83d1-8e20-83b2-87a2f90b/ee/predictions/version/02-10-21', json=payload_scoring, headers={'Authorization': 'Bearer ' + mltoken})
61     print(response_scoring)
62     predictions = response_scoring.json()
63     output = predictions['predictions'][0]['values'][0][0]
64     print(output)
65
66
67
68
69 if (output == 0):
70     ans="The flight will be on time"
71 else:
72     ans="The flight will be delayed"
73
74
75 return render_template("predict.html",showcase=ans)
76
77
78
79 if __name__ == '__main__':
80     app.run(debug = True)
```