

### Sprint-3

<b>Project name</b>	Developing a flight delay prediction using machine learning
<b>Team ID</b>	PNT2022TMID16459

#### **FLASK: (app.ibm.py)**

```
import time
```

```
import requests
```

```
import flask
```

```
from flask import request, render_template
```

```
from flask_cors import CORS
```

```
import requests
```

```
# NOTE: you must manually set API_KEY below using information  
retrieved from your IBM Cloud account.
```

```
API_KEY = "give your api key"
```

```
token_response =
```

```
requests.post('https://iam.cloud.ibm.com/identity/token', data={"apikey":  
API_KEY, "grant_type": 'urn:ibm:params:oauth:grant-  
type:4fJbepuok7oCO1UkeKU831Sq5rz5-JP0R_hljeB2oaEL'})
```

```
mltoken = token_response.json()["access_token"]
```

```
header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' +
mltoken}
```

```
app = flask.Flask(__name__,
static_url_path='c:/Users/ELCOT/Desktop/templates/app.py')
```

```
CORS(app)
```

```
@app.route('/', methods=['GET'])
```

```
def sendHomePage():
```

```
    return render_template('index.html')
```

```
@app.route('/predict', methods=['POST'])
```

```
def predict():
```

```
    EnterflightNumber = str(request.form['Enter flight Number'])
```

```
    Month = int(request.form['month'])
```

```
    Dayofmonth= int(request.form['day of month'])
```

```
    Dayofweek= float(request.form['day of week'])
```

```
    origin=float(request.form['origin'])
```

```
    Destination=float(request.form['destination'])
```

```
    scheduleddeparturetime=time(request.form['scheduled departure
time'])
```

```
    scheduledarrivaltime=time(request.form['scheduled arraival time'])
```

```
    Actualtime=time(request.form['actual time'])
```

```
    X = [('Enter flight Number,Month,Day of month,Day of
week,origin,Destination,scheduled departure time,scheduled arrival
time,actual time')]
```

```
payload_scoring =  
"input_data";[("field")];("EnterflightNumb','Month','Dayofmonth','Dayof  
week','origin','  
Destination','scheduledarrivaltime','scheduledarrivaltime','actual time"),  
"values": X
```

```
response_scoring = requests.post('https://us-  
south.ml.cloud.ibm.com/ml/v4/deployments/a7a269f3-d3c1-4e2d-85b2-  
47e1bf6bbfee/predictions?version=2022-10-13', json=payload_scoring,  
headers={'Authorization': 'Bearer ' + mltoken})
```

```
print(response_scoring)
```

```
predictions = response_scoring.json()
```

```
predict = predictions['predictions'][0]['values'][0][0]
```

```
print("Final prediction :",predict)
```

```
# showing the prediction results in a UI# showing the prediction  
results in a UI
```

```
return render_template('predict.html', predict=predict)
```

```
if __name__ == '__main__':
```

```
app.run(debug= False)
```