

Integrate Flask With Scoring End Point

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Project Name	Machine Learning-Based Predictive Analytics for Aircraft Engine

The screenshot displays the Spyder Python IDE interface. The main editor window shows a Python script named `app_ibm_cloud.py` with the following code:

```
1 import requests
2 import json
3
4 API_KEY = "Lkz0X01eh1nL2ZLQ2m7wahLFh812sFxx15d80PVEQ4z9"
5 token_response = requests.post('https://iam.cloud.ibm.com/identity/token', data={"apikey":
6 API_KEY, "grant_type": 'urn:ibm:params:oauth:grant-type:apikey'})
7 mltoken = token_response.json()["access_token"]
8
9 header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' + mltoken}
10
11 payload_scoring = {"input_data": [{"field": [{"id", "cycle", "setting1", "setting2", "setting3", "s1", "s2", "s3", "s4", "s5",
12 1.00000e+02, 5.18670e+02, 6.42500e+02, 1.58658e+03,
13 1.41020e+03, 1.46300e+01, 2.16100e+01, 5.53290e+02,
14 2.38810e+03, 9.07818e+03, 1.38000e+00, 4.74780e+01,
15 5.21280e+02, 2.38810e+03, 8.15268e+03, 8.44090e+00,
16 3.00000e-02, 3.94000e+02, 2.38800e+03, 1.00000e+02,
17 3.87300e+01, 2.33405e+01, 4.80000e+01]]]]]}
18
19 response_scoring = requests.post('https://us-south.ml.cloud.ibm.com/ml/v4/deployments/2d866513-0d23-4649-9345-753451f
20 headers={'Authorization': 'Bearer ' + mltoken})
21 print("Scoring response")
22
23 predictions = response_scoring.json()
24
25 pred=predictions["predictions"][0]["values"][0][0]
26
27 if(pred == 0):
28     print("No failure expected within 30 days.")
29 else:
30     print("Maintenance Required!! Expected a failure within 30 days.")
31
32
```

The right sidebar shows a file explorer with the following files and their modification dates:

- ipynt_checkpoints 11/16/2022 11:05 AM
- templates 11/18/2022 9:31 AM
- app_ibm_cloud.py 11/18/2022 11:23 AM
- app.py 11/18/2022 10:25 AM
- apply.py 11/18/2022 11:31 AM
- engine_model.pkl 11/15/2022 10:37 AM
- engine_model.sav 11/16/2022 10:03 PM
- IBM_Deployment cloudipynb 11/18/2022 1:14 AM
- IBM_Deployment jupyter.ipynb 11/16/2022 10:15 PM

The bottom console window shows the output of the script:

```
Python 7.31.1 -- An enhanced Interactive Python.
In [1]: runfile('C:/Users/Bala Ramalingam/Documents/IBM/Flask/templates/app_ibm_cloud.py',
wdir='C:/Users/Bala Ramalingam/Documents/IBM/Flask/templates')
Scoring response
No failure expected within 30 days.
In [2]: runfile('C:/Users/Bala Ramalingam/Documents/IBM/Flask/templates/app_ibm_cloud.py',
wdir='C:/Users/Bala Ramalingam/Documents/IBM/Flask/templates')
Scoring response
No failure expected within 30 days.
In [3]:
```