

```
pip install flask
```

Requirement already satisfied: flask in c:\users\hp\appdata\local\programs\python\python39\lib\site-packages (2.2.2)

Requirement already satisfied: itsdangerous>=2.0 in c:\users\hp\appdata\local\programs\python\python39\lib\site-packages (from flask) (2.1.2)

Requirement already satisfied: Werkzeug>=2.2.2 in c:\users\hp\appdata\local\programs\python\python39\lib\site-packages (from flask) (2.2.2)

Requirement already satisfied: click>=8.0 in c:\users\hp\appdata\local\programs\python\python39\lib\site-packages (from flask) (8.1.3)

Requirement already satisfied: importlib-metadata>=3.6.0 in c:\users\hp\appdata\local\programs\python\python39\lib\site-packages (from flask) (5.1.0)

Requirement already satisfied: Jinja2>=3.0 in c:\users\hp\appdata\local\programs\python\python39\lib\site-packages (from flask) (3.0.0)

Requirement already satisfied: colorama in c:\users\hp\appdata\local\programs\python\python39\lib\site-packages (from click>=8.0->flask) (0.4.4)

Requirement already satisfied: zipp>=0.5 in c:\users\hp\appdata\local\programs\python\python39\lib\site-packages (from importlib-metadata>=3.6.0->flask) (3.10.0)

Requirement already satisfied: MarkupSafe>=2.0.0rc2 in c:\users\hp\appdata\local\programs\python\python39\lib\site-packages (from Jinja2>=3.0->flask) (2.1.1)

Note: you may need to restart the kernel to use updated packages.

WARNING: You are using pip version 21.1.1; however, version 22.3.1 is available.

You should consider upgrading via the 'c:\users\hp\appdata\local\programs\python\python39\python.exe -m pip install --upgrade pip' command.

```
import pip._vendor.requests
from pip._vendor import requests
# import requests
from flask import *
```

*# NOTE: you must manually set API\_KEY below using information retrieved from your IBM Cloud account.*

```
API_KEY = "X2Pk1QhBMW2t1ZpNhVtmi3RShe8Icb-6lH84qlBy3UyG"
```

```
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__, template_folder="template")
```

```

@app.route('/')
def home():
    return render_template('index.html')

@app.route('/execute', methods=['POST'])
def execute():
    age= request.form["age"]
    sex=request.form["sex"]
    cpt=request.form["chest pain type"]
    bp=request.form["bp"]
    chol=request.form["cholesterol"]
    fbs=request.form["fbs over 120"]
    ekg=request.form["ekg results"]
    maxhr=request.form["max hr"]
    ea=request.form["exercise angina"]
    st=request.form["st depression"]
    slope=request.form["slope st"]
    vess=request.form["number of vessels fluro"]
    tha=request.form["thallium"]

    temp=[[int(age),int(sex),int(cpt),int(bp),int(chol),int(fbs),int(ekg),
    int(maxhr),int(ea),float(st),int(slope),int(vess),int(tha)]]
        payload_scoring = {"input_data": [{"field": ["Age", "Sex", "Chest
pain type", "BP", "Cholesterol", "FBS over 120", "EKG results", "Max
HR", "Exercise angina", "ST depression", "Slope of ST", "Number of vessels
fluro", "Thallium"]], "values": temp}}

        response_scoring = requests.post('https://us-
south.ml.cloud.ibm.com/ml/v4/deployments/alee86d1-a6f4-4dd8-a254-
6b7b4acbf55c/predictions?version=2022-11-22', json=payload_scoring,
        headers={'Authorization': 'Bearer ' + mltoken})
        print("Scoring response")
        prediction = response_scoring.json()

        print(prediction)
        out = prediction['predictions'][0]['values'][0][0]
        if out==0:
            out="This Person is not affected by heart disease"
        elif out==1:
            out="This Person is affected by heart disease"
        return render_template('index.html' , prediction_text=out)

if( __name__ == "__main__"):
    app.run()

```

```
* Serving Flask app '__main__'  
* Debug mode: off
```

WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.

```
* Running on http://127.0.0.1:5000  
Press CTRL+C to quit
```