Deploy a Decision Tree Classifier using FastAPI

Here, the Decision tree classifier is trained on Cardiovascular dataset (refer to the Decision Tree Folder). Deploy the model using FastAPI in this project

Implementation Instructions

1. cd Decision Tree fastapi/

2. Execute uvicorn cardio_fastapi:app --reload

```
INFO:      Will watch for changes in these directories: ['/home/sravani/Documents/datasets/fastapi']
INFO:      Uvicorn running on http://127.0.0.1:8000 (Press CTRL+C to quit)
INFO:      Started reloader process [21465] using StatReload
INFO:      Started server process [21467]
INFO:      Waiting for application startup.
INFO:      Application startup complete.
INFO:      127.0.0.1:47312 - "GET / HTTP/1.1" 200 OK
INFO:      127.0.0.1:47324 - "GET /docs HTTP/1.1" 200 OK
INFO:      127.0.0.1:47324 - "GET /openapi.json HTTP/1.1" 200 OK
INFO:      127.0.0.1:51196 - "POST /predict HTTP/1.1" 200 OK
WARNING:   StatReload detected changes in 'Cardio.py'. Reloading...
```

3. Open the url: http://127.0.0.1.8000/docs from the output of above command (shown in second line of above figure). docs of FastAPI is an easy way of giving input to the variables

4. In this, you can edit the input variables and click on Execute. The predicted label of the model (*Patient has cardiovascular disease*) is displayed in the Responses section

Responses

Curl

```
curl -X 'POST' \
  'http://127.0.0.1:8000/predict' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
  "age": 17623,
  "gender": 2,
  "height": 169,
  "weight": 100,
  "ap_hi": 160,
  "ap_lo": 100,
  "cholestrol": 1,
  "gluc": 1,
  "smoke": 0,
  "alco": 0,
  "active": 1
}'
```

Request URL

```
http://127.0.0.1:8000/predict
```

Server response

Code	Details
200	Response body

```
{
  "predict": "Patient has cardiovascular disease"
}
```

Download

Response headers

```
content-length: 48
content-type: application/json
date: Fri,18 Apr 2025 21:36:31 GMT
server: uvicorn
```