DS114- How to Request API?

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There are three common methods to send requests to an API endpoint:

1. From the Browser Directly (URL)

This is the simplest way to send requests for endpoints that do not require secure or complex data interactions. You simply enter the URL with the appropriate query parameters.

Example URL:

```
http://localhost:8000/predict?Year=2020&Engine_Size=2.5&Mileage=15000&Type=Accent&Make=Hyundai&Options=Full
```

You would type this URL into your browser's address bar. The browser automatically makes a GET request to the server at that URL with the specified parameters.

Note: This method is generally not suitable for `POST` requests since `POST` data needs to be included in the body of the request, which can't be done directly from a browser's address bar.

← → ⟳ ⓘ 127.0.0.1:8000

Pretty-print ☐

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2. From the Terminal Using `curl`

`curl` is a command-line tool used to transfer data to or from a server.
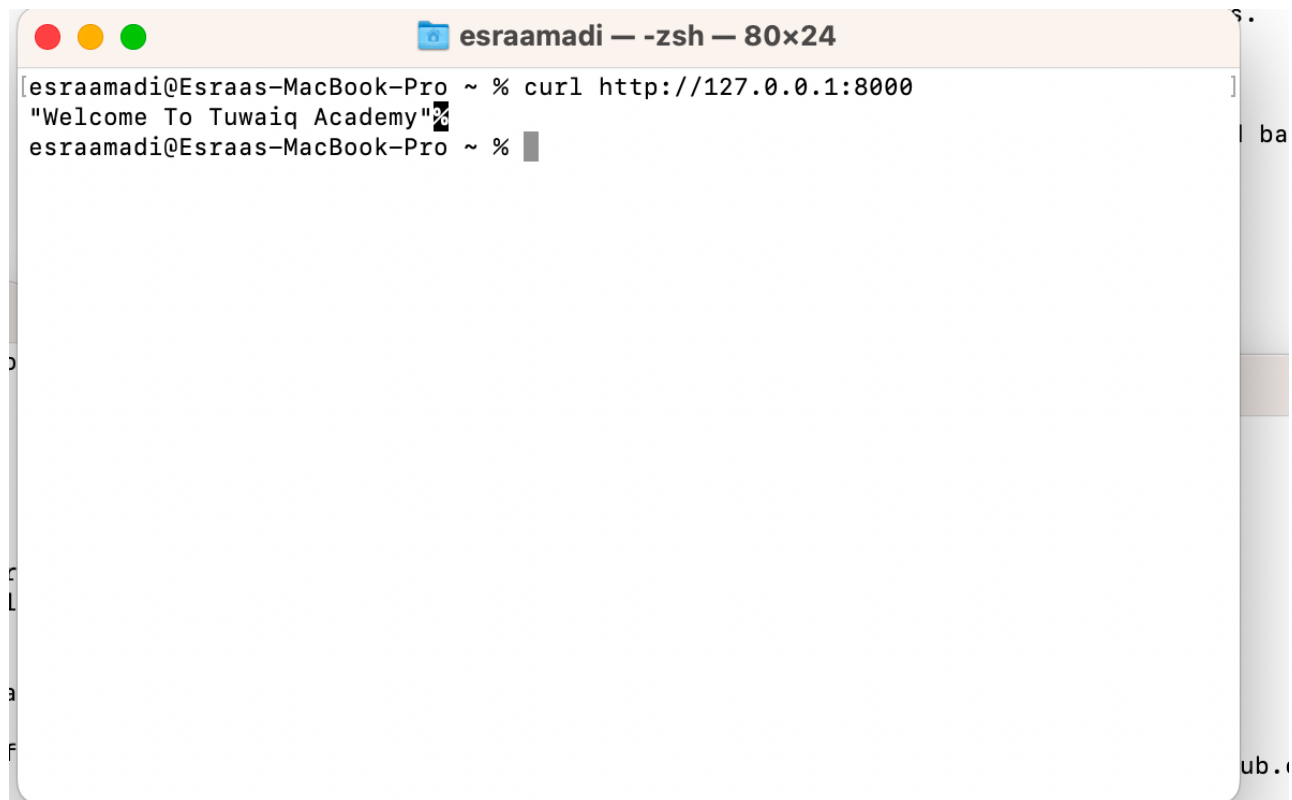
Example `curl` command for a GET request:

```
curl "http://localhost:8000/predict?Year=2020&Engine_Size=2.5&Mileage=15000&Type=Accent&Make=Hyundai&Options=Full"
```

This sends a GET request to the specified URL with the query parameters included.

Example `curl` command for a POST request:

```
curl -X POST "http://localhost:8000/predict" \
     -H "Content-Type: application/json" \
     -d '{
          "Year": 2020,
```

```
        "Engine_Size": 2.5,

        "Mileage": 15000,

        "Type": "Accent",

        "Make": "Hyundai",

        "Options": "Full"

    }'
```

```
[esraamadi@Esraas-MacBook-Pro ~ % curl http://127.0.0.1:8000
"Welcome To Tuwaiq Academy"%
esraamadi@Esraas-MacBook-Pro ~ %
```

esraamadi — -zsh — 80×24

3. From Python Code Using `requests` Library

The `requests` library in Python is a popular HTTP client for making requests to web servers. It is user-friendly and can handle various types of requests with minimal code.

Example Python script for a GET request:

```
import requests
```

```python
url = "http://localhost:8000/predict"
params = {
    "Year": 2020,
    "Engine_Size": 2.5,
    "Mileage": 15000,
    "Type": "Accent",
    "Make": "Hyundai",
    "Options": "Full"
}
response = requests.get(url, params=params)
print(response.json())
```
This script sends a GET request with parameters.

Example Python script for a POST request:
```python
import requests

url = "http://localhost:8000/predict"
data = {
    "Year": 2020,
    "Engine_Size": 2.5,
    "Mileage": 15000,
    "Type": "Accent",
    "Make": "Hyundai",
    "Options": "Full"
}
response = requests.post(url, json=data)
print(response.json())
```
This script sends a POST request with JSON data.

Note: This code could be in streamlit app to serve the model

Tabs: ML - DBSCAN.ipynb | main.py | ML - K-Means.ipynb

```python
import requests

url = "http://localhost:8000"

response = requests.get(url)
print(response.json())
```

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