Python Test/Backend Developer

Project Title: Sentiment Analysis API

Instructions for setting up the project and running it locally remade:

>> **Assuming that python latest version is installed.**

>> **Visual Studio Code or anaconda or other IDE is installed.**

1. Open up IDE and open the folder that was provided.
2. Below files should be visible.
   - ➔ **main.py** = webserver with a single endpoint that accepts POST request at ***/analyze***
   - ➔ **clientPost.py** = sends **json** to the webserver and expects a json in return
   - ➔ **testSetFil.py** = For testing the pre-trained model

3. Need to install **fastAPI**, **uvicorn**, **setFit**, **sentence-transformers** :

```
pip install fastapi
pip install uvicorn
pip install setfit
pip install -U sentence-transformers
```

For me after installing sentence_transformers through pip and running the code was still giving error.

- (**module not available** – **sentence_transformers**)

If this problem raises then I have included sentence transformer inside the folder.

```
pip install <location>
```

This will handle the issue. Location should be inside sentence transformer where **setup.py** is located.

4. To run the local server in the terminal:

   ```
   uvicorn main:app --reload
   ```

   This will give a link similar to **http://127.0.0.1:8000/**
   Visinting the link will show a json that the server has started.

   ```
   {
       "server status": "The server has started successfully"
   }
   ```

5. So the webserver is running and will accept a **payload** at ***/analyze***
6. "**clientPost.py**" sends a json to the webserver. To run the client either right click and run code or in the terminal:

   ```
   python clientPost.py
   ```

7. "**clientPost.py**" will print the sentiment analysis in the terminal.

```
PS F:\!python> python clientPost.py
sentiment : ['negative', 'positive']
```

8. I may be wrong or there might be other ways to fine tune the model but the pretrained model that was provided only gives **Binary Classification** (0-> negative, 1 -> positive)
9. Included log file named "**application.log**" to record all the events that is happening.
10. I have provided comments for each line and tried my best to give you the sense of the scenarios.