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 navigate to terminal.
2. Open up folder that was provided.
   - ➔ **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/**
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.
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. I have provided comments for each line and tried my best to give you the sense of the scenarios.