Guide: Setup New Enviornment and Use Jupyter in (VS Code)

Pre-requisites

1. **Virtual Environment**: Set up a virtual environment to organize your project and install dependencies.
2. **Install Jupyter & TensorFlow**: Make sure Jupyter and TensorFlow are installed. You can find setup instructions [here](.).

Setting up a Virtual Environment

Option 1: For Experienced Users (Use Command Line)

```
mkdir openai_test  # create a project folder
cd openai_test     # navigate into the project folder
```

Option 2: For Beginners

1. Create a new folder on your desktop and name it "OpenAI_test".
2. Right-click the folder and select **Open with VS Code**.

Steps to Set Up Your Environment

1. **Install virtualenv**:

   ```
   pip install virtualenv
   ```

2. **Create a Virtual Environment**:

   ```
   virtualenv <env_name>
   ```

3. **Activate the Virtual Environment**:
   - For **Windows**:

     ```
     .\<env_name>\Scripts\activate
     ```

   - For **Linux/Mac**:

     ```
     source <env_name>/bin/activate
     ```

4. **Create a `requirements.txt` File**:
   - Inside your virtual environment folder, create a file named `requirements.txt` and add the following:

   ```
   pandas            # data handling library
   openai            # access OpenAI API
   python-dotenv       # keeps access key hidden
   ipykernel          # needed for Jupyter in VS Code
   ```

5. **Install Dependencies**:

   ```
   pip install -r requirements.txt
   ```

6. **Install Jupyter Extension in VS Code**:

   - Open **Extensions** in VS Code.
   - Search for **Jupyter** and install the top result.

   Setup is ready to go (Installation setup Completed)

   Know you use jupyter notebook in vscode.

(Additonal information)

If you working with open ai api then make sure to stored key_address into system variables for security purpose.
For this follow below steps:

Set Up `.env` File:

   - In the main `OpenAI_test` folder (not inside the virtual environment folder), create a file named `.env`.
   - Add this line to the file, replacing with your OpenAI API key:

   ```
   OPENAI_API_KEY='your_openai_api_key'
   ```

Sample Code for Sentiment Analysis (you run it on vscode)

```python
def sentiment_analysis(promt):
    import openai
    import os
    openai.api_key = os.getenv("OPENAI_API_KEY")

    messages = [
        {"role":"system", "content":"your pretrained for sentiment analysisi,
check post emotions wether it is positive or negative, give me answer only single
world: Positive or Negative. If you not uderstand it then say: undected"},
        {"role": "user", "content": f"perfrom sentiment analysis on this
sentence: {prompt}"}
    ]

    response = openai.ChatCompletion.create(
        model = "gpt-3.5-turbo",
        messages = messages,
        temperature = 0
    )

    clean_response = response.choices[0].message['content'].strip()

    return clean_response


prompt = input("Write you prompt: ")
res = sentiment_analysis(prompt)
print(prompt," OpenAI Response:> ", res)
```