\*\*RECOMMENDED TO DOWNLOAD VISUAL Studio installer and install desktop development with c++\*\*python 3.8.10 recommended can use other versions also/

To run this Streamlit plagiarism checker code in Visual Studio Code (VS Code), follow these steps:

**1. Set Up Your Python Environment**

First, ensure that you have Python installed on your computer. If not, you can download and install it from [python.org](https://www.python.org/).

**2. Install VS Code**

If you don't have Visual Studio Code installed, download and install it from [here](https://code.visualstudio.com/).

**3. Install Required Libraries**

Open a terminal in VS Code and follow these steps to install the required libraries.

1. **Create a Virtual Environment (Optional but Recommended)**

To keep your dependencies isolated for this project, it’s recommended to create a virtual environment.

* + Open the terminal in VS Code and run:

bash

Copy

python -m venv venv

* + To activate the virtual environment:
    - On Windows:

bash

Copy

.\venv\Scripts\activate

* + - On macOS/Linux:

bash

Copy

source venv/bin/activate

1. **Install Required Libraries**:

Once the virtual environment is activated, install the required Python libraries:

bash

Copy

pip install streamlit spacy requests scikit-learn

**Download SpaCy Model:**

Additionally, you need to download the SpaCy model en\_core\_web\_sm:

bash

Copy

python -m spacy download en\_core\_web\_sm

1. **Install google-api-python-client for Google Custom Search API (Optional)**:

If your Google Custom Search API requires this specific client, install it:

bash

Copy

pip install google-api-python-client

However, the code is already using the requests module, which may be sufficient. You can skip this step if you don't encounter any issues.

**4. Set Up API Keys**

You need to replace the placeholders for the Google API key and Custom Search Engine ID with your actual credentials.

* **Create a Google Cloud Project** and enable the **Custom Search API** from Google Cloud Console.
* **Create a Custom Search Engine** from Google Custom Search.
* Obtain your **API Key** and **Search Engine ID** and replace the respective placeholders in the code:

python

Copy

GOOGLE\_API\_KEY = "YOUR\_API\_KEY" # Replace with your actual API key

SEARCH\_ENGINE\_ID = "YOUR\_SEARCH\_ENGINE\_ID" # Replace with your actual Search Engine ID

**5. Create a Python File**

In VS Code:

1. Create a new file (e.g., plagiarism\_checker.py) and copy the provided code into this file.

**6. Run the Streamlit App**

Once the necessary dependencies are installed and the API credentials are configured, you can run the Streamlit app using the following steps:

1. **Open the terminal** in VS Code and navigate to the folder where your plagiarism\_checker.py file is located.
2. Run the Streamlit app by executing:

bash

Copy

streamlit run plagiarism\_checker.py

Streamlit will start a local server and provide you with a URL (e.g., http://localhost:8501) to access the web interface in your browser.

**7. Using the App**

Once the app is running, open your browser and go to the URL provided by Streamlit (usually http://localhost:8501). You should see the plagiarism checker interface where you can enter the text, check for plagiarism, and see the results.

**8. Optional Debugging & Improvements**

* If there are any errors or issues, the Streamlit app will show logs in the terminal where you ran the streamlit run command.
* You can also check the VS Code terminal for any issues related to dependencies or incorrect configurations