AI Image Generator: How to Run on Your Local Computer

Prerequisites

Before you start, ensure you have the following software installed on your local computer:

1. **Python**: Version 3.6 or later. You can download it from python.org.
2. **pip**: Python package installer (comes with Python).

Step-by-Step Instructions

1. Clone the Repository

First, clone the project repository from GitHub to your local machine. Open a terminal (or command prompt) and run the following command:

git clone *https://github.com/COutSatish/AI-Image-Generator-with-OpenAI-s-DALL-E-3-Model*

2. Navigate to the Project Directory

Change to the directory where the repository was cloned:

cd AI-Image-Generator

3. Create and Activate a Virtual Environment (Optional but Recommended)

Creating a virtual environment is a good practice to manage dependencies. Run the following commands:

On Windows:

python -m venv venv

venv\Scripts\activate

On macOS and Linux:

python3 -m venv venv

source venv/bin/activate

4. Install Dependencies

Install the required Python libraries using pip:

pip install -r requirements.txt

If there is no requirements.txt file, manually install the dependencies:

pip install streamlit openai python-dotenv

5. Set Up Environment Variables

Create a .env file in the root directory of the project. Open your preferred text editor and add the following line to the .env file:

OPENAI_API_KEY=your_openai_api_key_here

Replace your_openai_api_key_here with your actual OpenAI API key.

6. Run the Streamlit App

Launch the Streamlit application by running the following command in the terminal:

streamlit run app.py

7. Open the Web Application

After running the command, Streamlit will start a local web server. Open your web browser and navigate to the following URL to access the app:

http://localhost:8501

Additional Information

- **Toggle between Real and Mock API**: In the app, you can choose to use the real OpenAI API or a mock API for testing. Simply check or uncheck the "Use Mock API (for testing)" option.

- **Select Image Size and Quality**: You can select different image sizes and quality from the dropdown menus provided in the app.

- **Input Prompt**: Enter a prompt in the text input field to generate an image based on that prompt.

Troubleshooting

- **No API Key Found**: If you see an error about the API key, ensure that your .env file is correctly set up and contains the valid OpenAI API key.

- **Dependencies Not Installed**: If you encounter errors related to missing packages, ensure all dependencies are installed by running the pip install commands again.

Conclusion

You should now be able to run the AI Image Generator app on your local computer. If you encounter any issues or have questions, feel free to reach out through the GitHub repository's issue tracker.