**README: Setting Up the Environment and Running the Project**

This document provides step-by-step instructions for installing the necessary requirements and running the project, either by using a virtual environment or directly installing dependencies on the system.

**Prerequisites**

* **Python 3.8 or higher**: Ensure Python is installed on your system. You can download it from [python.org](https://www.python.org/downloads/).
* **pip**: Python's package manager, which is typically installed along with Python.

**Installation Instructions**

**1. Create and Activate a Virtual Environment (Recommended)**

Using a virtual environment ensures that dependencies for this project do not interfere with other Python projects on your system.

**a. Create the Environment**

python -m venv env

**b. Activate the Environment**

* On **Windows**:
* .\env\Scripts\activate
* On **macOS/Linux**:
* source env/bin/activate

You should see (env) at the beginning of your command line prompt, indicating that the virtual environment is active.

**2. Install Project Dependencies**

**a. Using requirements.txt**

Run the following command to install all required Python packages:

pip install -r requirements.txt

**b. Verify Installation**

To confirm that all dependencies are installed, run:

pip list

**3. Run the Project**

After setting up the environment and installing dependencies, you can run the main script:

python main.py

Replace main.py with the entry point file of your project.

**Optional: Use Prebuilt env Folder**

If you have a prebuilt env folder in the project directory:

1. **Activate the Prebuilt Environment**
   * On **Windows**:
   * .\env\Scripts\activate
   * On **macOS/Linux**:
   * source env/bin/activate
2. **Run the Project**
3. python main.py

**Troubleshooting**

**Common Issues**

1. **pip**\*\* command not found\*\*:
   * Ensure Python is installed and added to your system PATH.
   * On Windows, you may need to restart your terminal or install pip using:
   * python -m ensurepip
2. **Dependency Errors**:
   * Run the following to upgrade pip and retry:
   * pip install --upgrade pip
   * pip install -r requirements.txt
3. **Virtual Environment Issues**:
   * Delete the env folder and recreate it using the steps in [Section 2](https://chatgpt.com/c/6776aabb-4450-800a-95b2-f21545de2cc5#2-create-and-activate-a-virtual-environment-recommended).

**Notes**

* Always activate the virtual environment before running or modifying the project.
* For additional dependencies, add them to requirements.txt by running:
* pip freeze > requirements.txt