**Full Step-by-Step Guide for Your AI Engineering Project (Root Endpoint Version)**

**Step 1: Install Git and Python**

* **Download and install**[**Git**](https://git-scm.com/downloads)**.**
* **Download and install**[**Python 3.11+**](https://www.python.org/downloads/)**.**

**Step 2: Create Project Folder Locally**

* **Create a folder for your project, e.g.:  
  C:\Users\ennai\Desktop\AI Git\governed-rag**
* **Open this folder in Visual Studio Code (VS Code).**

**Step 3: Initialize a Local Git Repository**

* **Open the terminal in VS Code (Ctrl+`).**
* **Run:**

**bash**

**git init**

* **This begins version control for your project.**

**Step 4: Configure Git User Info (once per PC)**

* **Run these commands with your GitHub username/email:**

**bash**

**git config --global user.name "CodeNinja923"**

**git config --global user.email "cherifennaifer@gmail.com"**

**Step 5: Set Up Python Virtual Environment**

* **In your project folder terminal, run:**

**bash**

**python -m venv venv**

* **Activate the virtual environment:  
  Windows PowerShell:**

**powershell**

**.\venv\Scripts\Activate.ps1**

**Step 6: Install Required Packages**

* **Run:**

**bash**

**pip install fastapi uvicorn pydantic sqlalchemy psycopg2-binary redis sentence-transformers**

**Step 7: Create Project Structure and Base FastAPI App**

* **Inside your project folder, create this structure:**

**text**

**src/**

**API/**

**main.py**

* **In main.py, add this minimal API code:**

**python**

**from fastapi import FastAPI**

**app = FastAPI()**

**@app.get("/")**

**async def root():**

**return {"status": "ok"}**

**Step 8: Test Your API Locally**

* **Run from project root:**

**bash**

* **uvicorn src.API.main:app –reload**
* **Visit**[**http://127.0.0.1:8000/**](http://127.0.0.1:8000/)
* **You should see:**

**json**

**{"status": "ok"}**

**Step 9: Make Your First Commit and Connect to GitHub**

* **Add files, commit, and link to GitHub remote repo:**

**bash**

**git add .**

**git commit -m "Initial FastAPI app setup with root endpoint"**

**git remote add origin https://github.com/CodeNinja923/governed-rag.git**

**git branch -M main**

**git push -u origin main**

* **(Use your actual GitHub repo URL and fix conflicts by pulling remote first if needed)**