**Project 1: ChatGPT Automation Agent**

**✅ Project Objective:**

To create an intelligent assistant using ChatGPT that can **understand user prompts**, **automate basic tasks**, and **respond dynamically** like a smart agent — helping users through natural language.

**🧰 Tools & Technologies Used:**

* **OpenAI ChatGPT API**
* **Python** (backend logic)
* **Streamlit / Gradio** (for GUI)
* **Web APIs** (for automation tasks like email, search, etc.)

**🔄 Code Flow Explanation:**

1. **User Input Interface** (via CLI or Streamlit form):
   * Accepts a natural language query like:

“Send an email to Alex” or “What’s the weather?”

1. **Intent Detection with ChatGPT API**:
   * The query is passed to OpenAI API.
   * ChatGPT extracts intent: Is it a query? A task? A calculation?
2. **Task Routing**:
   * If it’s a command, route it to relevant automation module:
     + Email → smtplib
     + File Operations → os, shutil
     + Web Search → requests, BeautifulSoup
3. **Execution**:
   * Executes task and stores/logs result.
   * Sends response back to user.
4. **Response Display**:
   * The result is shown to the user in UI or terminal.

**💡 Example Use Cases:**

* “Send a WhatsApp message to John at 6 PM”
* “Get my IP address”
* “Tell me a joke”
* “Create a folder named ‘test’ on Desktop”

**🧪 Output/Results:**

* Smart system that can understand English instructions and automate common tasks
* Time-saving automation assistant
* Extensible for custom workflows (DevOps, IoT, etc.)