Project Smart Mini GPT (AI Chatbot

Presented by Smart bots

Introduction

Smart Mini GPT is an interactive chatbot system designed to simulate human-like conversations using artificial intelligence and natural language processing (NLP) techniques. The project aims to build a lightweight version of an AI assistant, similar to ChatGPT, that can understand user input and generate meaningful, context-based responses in real-time.

Our Team

Nourhan Khaled

Shaima Mohi

Maryam Wael

Abeer abdelmenaim

Project Goals

To build a simple and intelligent chatbot that can communicate naturally with users using artificial intelligence

To demonstrate the integration of AI models into small web-based applications

To encourage learning and experimentation in the field of artificial intelligence and software development

Problems

1

Integration with AI models: Connecting the chatbot interface with an AI model or API and ensuring stable communication between the frontend and backend

2

Response accuracy: Sometimes the generated responses were not completely relevant or logical to the user's question

Process

1

Requirement Analysis:
The project goals and functionalities were clearly defined — such as user interaction, chatbot responses, and interface design

2

•**Interface Development:**
The chat interface was created using **HTML, CSS, and JavaScript** to make it simple and user-friendly.

Backend Implementation:
The backend was developed using **Python (Flask or Streamlit)** to handle user messages and communicate with the AI model

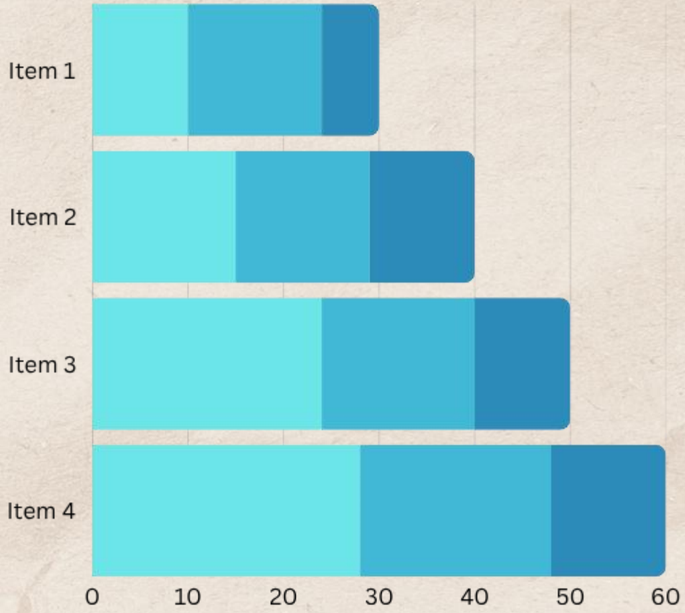
3

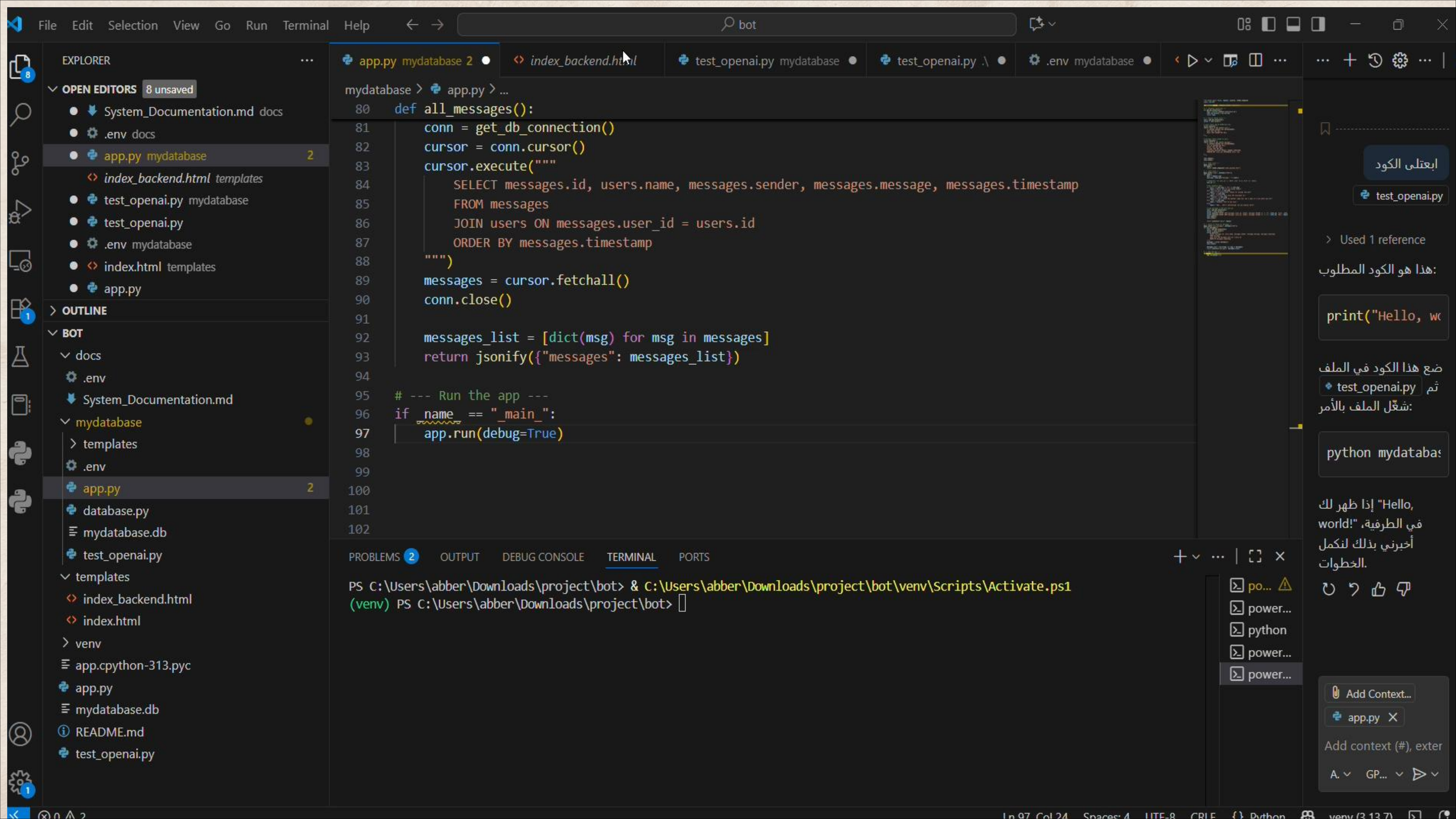
•**Backend Implementation:**
The backend was developed using **Python (Flask or Streamlit)** to handle user messages and communicate with the AI model.
•**AI Integration:**
The system was connected with an AI model (like OpenAI API or a local NLP model) to generate intelligent responses

Result

- The *Smart Mini GPT* project successfully achieved its main goals.
  The chatbot was able to respond to user messages automatically and simulate real conversations using artificial intelligence techniques.
- **Key results include:**
- The chatbot provided **fast and intelligent replies** to different user inputs.
- The interface was **simple, clear, and easy to use** for all users.
- The system demonstrated **how AI can be integrated** into small applications effectively.
- The project helped improve understanding of **NLP, backend logic, and AI integration**.
- The chatbot worked efficiently in generating short and relevant responses in real-time.

Overall, the project proved that it is possible to build a small, intelligent chatbot system using Python and web technologies




File Edit Selection View Go Run Terminal Help
bot
EXPLORER
OPEN EDITORS 8 unsaved
System_Documentation.md docs
.env docs
app.py mydatabase 2
index_backend.html templates
test_openai.py mydatabase
test_openai.py
.env mydatabase
index.html templates
app.py
OUTLINE
BOT
docs
.env
System_Documentation.md
mydatabase
templates
.env
app.py 2
database.py
mydatabase.db
test_openai.py
templates
index_backend.html
index.html
venv
app.cpython-313.pyc
app.py
mydatabase.db
README.md
test_openai.py
app.py mydatabase 2
index_backend.html
test_openai.py mydatabase
test_openai.py
.env mydatabase
mydatabase > app.py > ...
80 def all_messages():
81 conn = get_db_connection()
82 cursor = conn.cursor()
83 cursor.execute("""
84 SELECT messages.id, users.name, messages.sender, messages.message, messages.timestamp
85 FROM messages
86 JOIN users ON messages.user_id = users.id
87 ORDER BY messages.timestamp
88 """)
89 messages = cursor.fetchall()
90 conn.close()
91
92 messages_list = [dict(msg) for msg in messages]
93 return jsonify({"messages": messages_list})
94
95 # --- Run the app ---
96 if __name__ == "__main__":
97 app.run(debug=True)
98
99
100
101
102
PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\abber\Downloads\project\bot> & C:\Users\abber\Downloads\project\bot\venv\Scripts\Activate.ps1
(venv) PS C:\Users\abber\Downloads\project\bot>
po...
power...
python
power...
power...
ابعتلى الكود
test_openai.py
Used 1 reference
هذا هو الكود المطلوب:
print("Hello, wo
ضع هذا الكود في الملف test_openai.py ثم شغّل الملف بالأمر:
python mydatabas
إذا ظهر لك "Hello, world!" في الطرفية، أخبرني بذلك لنكمل الخطوات.
Add Context...
app.py
Add context (#), exter
A.
GP...
Ln 97, Col 24 Spaces: 4 UTF-8 CRLF Python venv (3.13.7)

Conclusion

In conclusion, the *Smart Mini GPT* project demonstrates the power and potential of artificial intelligence in enhancing human–computer interaction.
Through this project, a simple yet effective chatbot was successfully developed to communicate with users intelligently and naturally.
The system achieved its goals by integrating NLP techniques, Python programming, and web technologies to create a real-time interactive experience.
It also provided valuable learning in AI model integration, system design, and user interface development.
Overall, *Smart Mini GPT* serves as a strong foundation for future development of more advanced AI-based assistants that can support education, communication, and automation tasks

Thank You