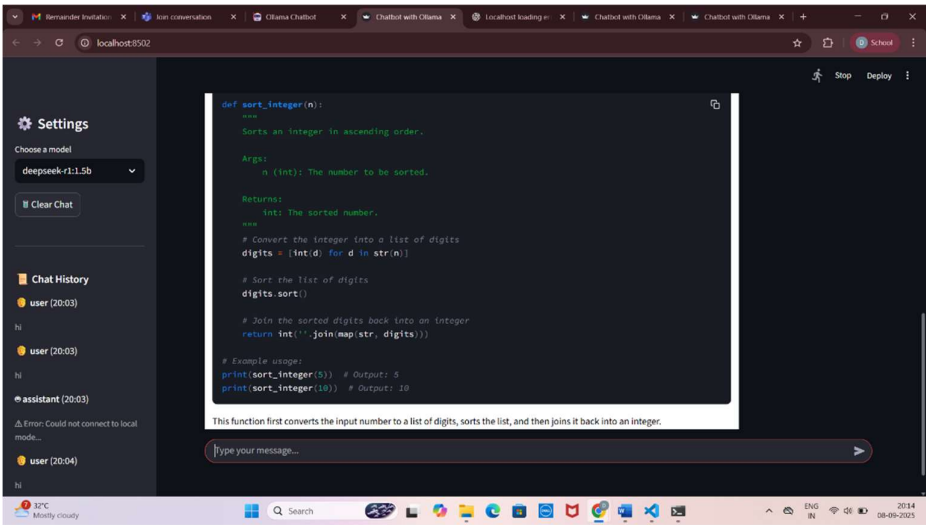
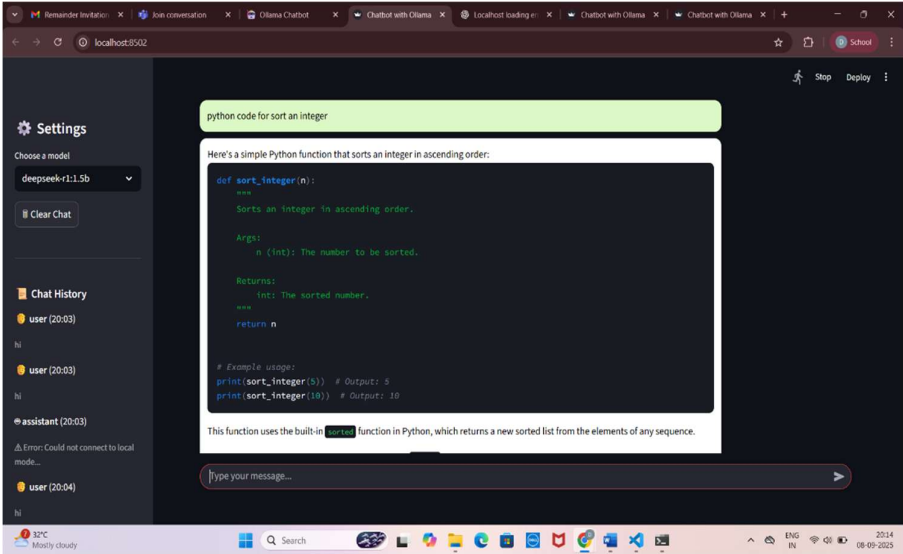


UI INTERFACE

Checking Ollama is working

1) Python code for sort an integer



2) Code line by line explain

```
# Chat input if prompt := st.chat_input("Type your message here..."): st.session_state.messages.append({"role": "user", "content": prompt}) with st.chat_message("user"): st.markdown(prompt)

# Send to Ollama API with selected model
response = requests.post(
    "http://localhost:11434/api/chat",
    json={
        "model": selected_model, # 🐞 dynamic model choice
        "messages": [{"role": m["role"], "content": m["content"]} for m in st.session_state.messages]
        "stream": False
    }
)

if response.status_code == 200:
    bot_reply = response.json()["message"]["content"]
else:
    bot_reply = "Error: " + response.text

st.session_state.messages.append({"role": "assistant", "content": bot_reply})
with st.chat_message("assistant"):
    st.markdown(bot_reply)
```

explain this code line by line

Here's a line-by-line explanation of the code:

```
# Chat input prompt (using `st.chat_input`)
if prompt := st.chat_input("Type your message here..."):
```

- This line prompts the user to type their message using the `st.chat_input()` function from the Streamlit library.
- The `:=` symbol is used to unpack a value of any type into a single variable. In this case, it's assigning the result of `st.chat_input("Type your message here...")` to the variable `prompt`.
- The `?:` is not actually needed in this case, but it was included for clarity.

```
st.session_state.messages.append({"role": "user", "content": prompt})
```

- This line appends a new dictionary to the `messages` list in the user's session state.
- The dictionary contains two key-value pairs: `"role"` with value `"user"` and `"content"` with value `prompt`.
- The `st.session_state.messages.append()` function creates or updates a new message in the session state. It expects a dictionary as its first argument, which will be used to store the message data.

```
with st.chat_message("user"):
    st.markdown(prompt)
```

3) Using deepseek r1:1:5b mod

The screenshot shows a Streamlit application interface. On the left, there's a sidebar with a 'Settings' section where 'deepseek-r1:1.5b' is selected as the model. Below that is a 'Clear Chat' button and a 'Chat History' section showing a conversation between 'user' and 'assistant'. The main chat area on the right has a title 'what is AI' and a text input field. The assistant's response is displayed, explaining AI and listing key areas and types of AI.

Settings

Choose a model
deepseek-r1:1.5b

Clear Chat

Chat History

user (21:20)
what is AI

assistant (21:21)
<think> </think>
AI, or Artificial Intelligence...

Local Chatbot Powered by Ollama

what is AI

AI, or Artificial Intelligence, refers to systems that enable machines to perform tasks that require human intelligence. These systems can perform tasks such as learning, problem-solving, decision-making, and language understanding. AI has the potential to transform industries by improving efficiency, delivering personalized services, and enhancing decision-making processes.

Key Areas of AI:

1. **Machine Learning:** A subset of AI that allows machines to learn from data and improve over time without being explicitly programmed.
2. **Deep Learning:** A subset of machine learning that uses neural networks with many layers (deep models) to model and solve complex problems.
3. **NLP (Natural Language Processing):** The use of AI techniques to enable computers to understand, manipulate, and generate human language.
4. **Computer Vision:** AI systems that interpret and analyze visual data from video or images.

Types of AI:

- **Recurrent Neural Networks (RNNs):** Used for sequential data like time series or text.

Type your message...

