

TASK 4: Basic Chatbot - README

Project Overview

This is a simple rule-based chatbot implemented in Python that responds to basic user inputs with predefined replies.

Goal

Build a simple rule-based chatbot that can handle basic greetings and farewells.

Features

- Responds to "hello" with "Hi!"
- Responds to "how are you" with "I'm fine, thanks!"
- Responds to "bye" with "Goodbye!"
- Handles unknown inputs with a helpful message
- Case-insensitive input matching
- Continuous conversation loop until user types "quit"

Key Programming Concepts Used

- **if-elif statements:** For rule-based response logic
- **functions:** Modular code organization with `get_chatbot_response()` and `main()`
- **loops:** While loop for continuous conversation
- **input/output:** Getting user input and displaying responses

Files

- `chatbot.py`: Main Python script containing the chatbot implementation
- `README.txt`: This documentation file

How to Run

1. Make sure you have Python installed on your system
2. Open a terminal/command prompt
3. Navigate to the directory containing `chatbot.py`
4. Run the command: `python chatbot.py`

5. Start chatting with the bot!

Usage Examples

You: hello

Chatbot: Hi!

You: how are you

Chatbot: I'm fine, thanks!

You: bye

Chatbot: Goodbye!

You: what's your name

Chatbot: I don't understand that. Try saying 'hello', 'how are you', or 'bye'.

You: quit

Chatbot: Thanks for chatting! Goodbye!

Supported Commands

- "hello" → "Hi!"
- "how are you" → "I'm fine, thanks!"
- "bye" → "Goodbye!"
- "quit" → Exits the chatbot

Code Structure

The chatbot consists of two main functions:

1. **get_chatbot_response(user_input):**

- Takes user input as parameter
- Uses if-elif statements to match input with predefined responses
- Returns appropriate response string

2. **main():**

- Handles the conversation loop
- Gets user input
- Calls get_chatbot_response()
- Displays the response

- Continues until user types "quit"

Future Enhancements

This basic chatbot could be extended with:

- More conversation patterns
- Regular expressions for flexible matching
- Context awareness
- Integration with external APIs
- Machine learning capabilities

Requirements

- Python 3.x
- No external libraries required (uses only built-in Python functions)

Created for TASK 4: Basic Chatbot Assignment