**TASK – BASIC CHATTBOT**

**Goal :**

To build a simple rule-based chatbot that responds to specific user inputs such as "hello", "how are you", and "bye" with predefined replies.

**Scope :**

* Accept user input through the console.
* Match input to known phrases and respond accordingly.
* Use if-elif statements, functions, loops, and input/output.
* Continue conversation until the user types "bye".

**Code Implementation :**

**# Basic Chatbot Program**

def chatbot\_response(user\_input):

"""

Returns a predefined response based on user input.

"""

user\_input = user\_input.lower() # Convert to lowercase for easier matching

if user\_input == "hello":

return "Hi!"

elif user\_input == "how are you":

return "I'm fine, thanks!"

elif user\_input == "bye":

return "Goodbye!"

else:

return "I don't understand that."

# Main chat loop

print("Welcome to the Basic Chatbot! (Type 'bye' to exit)")

while True:

user\_message = input("You: ")

reply = chatbot\_response(user\_message)

print("Bot:", reply)

if user\_message.lower() == "bye":

break

**Explanation of Code :**

1. Function chatbot\_response()

Takes user input and returns a matching predefined response.

Converts input to lowercase to avoid case sensitivity issues.

2. If-Elif-Else Statements

"hello" → "Hi!"

"how are you" → "I'm fine, thanks!"

"bye" → "Goodbye!"

Anything else → "I don't understand that."

3. Loop (while True)

Keeps asking for user input until "bye" is entered.

4. Input/Output

input() is used to take user text.

print() is used to display chatbot’s reply.

**Sample Output :**

Welcome to the Basic Chatbot! (Type 'bye' to exit)

You: hello

Bot: Hi!

You: how are you

Bot: I'm fine, thanks!

You: what is your name

Bot: I don't understand that.

You: bye

Bot: Goodbye!

**REFERENCE:** 