codealpha3

December 7, 2024

1 Basic Chatbot

- 1.0.1 Create a text-based chatbot that can have
- 1.0.2 conversations with users. You can use natural
- 1.0.3 language processing libraries like NLTK or spaCy to
- 1.0.4 make your chatbot more conversational

```
[1]: # Create a text-based chatbot that can have conversation with users.
     #you can use natural language processing libraries like nltk or spaCy to make_
      ⇒your chatbot more conversational...
     import random
     greetings = ["Hello!","Hi there!","Hey","Greetings"],
     farewell = ["Goodbye", "See you later!", "Bye!", "Take care!"],
     quetion = ["How are you!", "What is you name!", "Who are you", "What's Up!", "How ⊔
      ⇒are you doing!"],
     default_response = ["I'm sorry", "I didn't quite understand that", "Can you say"
      ⇔that again", "Please rephrase your quetions!"]
     print("Hello , I'm ChatBot! Type 'exit' to end the conversation:")
     while True:
         user_input = input("Your asking:").lower()
         if user input == 'exit' or 'bye' or 'end':
             print("ChatBot.Goodbye! Have a nice day!:")
             break
         elif any(greeting.lower() in user_input for greeting in gretings):
             print("Chatbot :" + random.choice(greetings))
         elif any(farewell.lower() in user_input for farewell in farewells):
             print("ChatBot:" + random.choice(farewells))
             break
         elif any(quetion.lower() in user_input for quetion in quetions):
             print("ChatBot: i'm doing great, thanks you! How about you?")
         else:
```

```
print("ChatBot:" + random.choice(default_response))
    Hello , I'm ChatBot! Type 'exit' to end the conversation:
    Your asking: hii
    ChatBot.Goodbye! Have a nice day!:
[2]: import nltk
     from nltk.chat.util import Chat, reflections
     # Download necessary NLTK packages
     nltk.download('punkt')
     nltk.download('averaged_perceptron_tagger')
     # Define pairs of input patterns and responses
     pairs = [
         (r"hi|hello|hey", ["Hello, how can I assist you today?", "Hi! How can I_{\sqcup}
      ⇔help you?"]),
         (r"how are you?", ["I'm doing well, thank you!", "I'm great, how about you?
         (r"what is your name?", ["I am a chatbot created to assist you.", "You can_{\sqcup}
      ⇔call me Chatbot."]),
         (r"what can you do?", ["I can assist with basic questions or have a simple⊔
      ⇔chat.", "I can help with answering questions and chatting."]),
         (r"(.*) \text{ your } (.*)", ["Why are you asking about my \( \frac{2}{2}?", "I am a chatbot,_\( \)
      ⇔and I don't have %2."]),
         (r"(.*) help(.*)", ["Sure, how can I help?", "I'm here to assist you. What_<math>\sqcup

do you need help with?"]),
         (r"(.*) (thanks|thank you)", ["You're welcome!", "Happy to help!"]),
         (r"bye|goodbye", ["Goodbye! Have a great day!", "Take care!"]),
         (r"(.*)", ["I'm sorry, I didn't understand that. Could you rephrase?"])
     ]
     # Create a chatbot with the defined patterns and responses
     chatbot = Chat(pairs, reflections)
     # Start the conversation
     print("Chatbot: Hi there! How can I help you today?")
     while True:
         user_input = input("You: ")
         if user_input.lower() in ["bye", "goodbye"]:
             print("Chatbot: Goodbye! Have a nice day!")
             break
         response = chatbot.respond(user_input)
         print(f"Chatbot: {response}")
```

print("Thanks for viewing!")

```
[nltk_data] Downloading package punkt to
                C:\Users\Admin\AppData\Roaming\nltk_data...
[nltk_data]
              Package punkt is already up-to-date!
[nltk_data]
[nltk_data] Downloading package averaged_perceptron_tagger to
[nltk_data]
                C:\Users\Admin\AppData\Roaming\nltk_data...
[nltk_data]
              Package averaged_perceptron_tagger is already up-to-
[nltk_data]
                  date!
Chatbot: Hi there! How can I help you today?
You: hii
Chatbot: Hi! How can I help you?
Thanks for viewing!
You: how are you
Chatbot: I'm great, how about you?
Thanks for viewing!
You: what is your name
Chatbot: You can call me Chatbot.
Thanks for viewing!
You: bye
Chatbot: Goodbye! Have a nice day!
```

[]: