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In [25]: import nltk

import re
from nltk.chat.util import Chat, reflections
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In [27]: # Download NLTK data

nltk.download('punkt')

nltk.download('averaged_perceptron_tagger')
```

```
[nltk_data] Downloading package punkt to
[nltk_data]   C:\Users\Vaish\AppData\Roaming\nltk_data...
[nltk_data]   Package punkt is already up-to-date!
[nltk_data] Downloading package averaged_perceptron_tagger to
[nltk_data]   C:\Users\Vaish\AppData\Roaming\nltk_data...
[nltk_data]   Package averaged_perceptron_tagger is already up-to-
[nltk_data]   date!
```

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Out[27]: True
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In [29]: # Define patterns and responses

pairs = [

    [r"my name is (.*)", ["Hello %1, how can I assist you today?"]],

    [r"hi|hey|hello", ["Hello, how can I help you?", "Hey there! What can I do for",
                        "Hi! How can I assist you today?"]],

    [r"what is your name?", ["I am a chatbot created to assist you. You can call me",
                              "I'm a bot, so I don't have feelings, but I'm here to help y",
                              "Sure, I can help you with %1. Please provide m",
                              "It's okay. How can I assist you?"]],

    [r"thank you|thanks", ["You're welcome!", "No problem!", "Happy to help!"]],

    [r"quit", ["Bye! Have a great day!", "Goodbye!"]],

    [r"best place (.*)", ["Hyderabad", "Banglore", "Vizag", "Mumbai"]],

    [r"golden|temple (.*)", ["It is in amritsar"]],

    [r"(.*)", ["I'm sorry, I don't understand that. Can you rephrase?",
               "Could you please elaborate on that?"]]]
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In [31]: # Define the chatbot class
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class RBChatbot:
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def __init__(self, pairs):

    self.chat = Chat(pairs, reflections)


def respond(self, user_input):

    return self.chat.respond(user_input)


# Initialize the chatbot

chatbot = RBChatbot(pairs)

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In [33]: # Function to chat with the bot

def chat_with_bot():

    print("Hi, I'm your chatbot. Type 'quit' to exit.")

    while True:

        user_input = input("You: ")

        if user_input.lower() == 'quit':

            print("Chatbot: Bye! Have a great day!")

            break

        response = chatbot.respond(user_input)

        print(f"Chatbot: {response}")

# Start chatting with the bot

chat_with_bot()

```

```

Hi, I'm your chatbot. Type 'quit' to exit.
Chatbot: Hello, how can I help you?
Chatbot: Hello vaish, how can I assist you today?
Chatbot: I'm a bot, so I don't have feelings, but I'm here to help you!
Chatbot: I'm sorry, I don't understand that. Can you rephrase?
Chatbot: Vizag
Chatbot: Could you please elaborate on that?
Chatbot: It is in amritsar
Chatbot: Bye! Have a great day!

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