**REVOLUTIONIZING CUSTOMER SUPPORT WITH AN INTELLIGENT CHATBOT FOR AUTOMATED ASSISTANCE**

**Source code:**

import random

import nltk

from nltk.chat.util import Chat, reflections

# Download necessary NLTK data (if not already downloaded)

nltk.download('punkt')

nltk.download('averaged\_perceptron\_tagger')

# Define pairs of patterns and responses

pairs = [

    [

        r"my name is (.\*)",

        ["Hello %1, how can I assist you today?",]

    ],

    [

        r"what is your name?",

        ["My name is SupportBot, and I'm here to help.",]

    ],

    [

        r"how are you ?",

        ["I'm doing well, thank you!", "I'm great, thanks for asking!",]

    ],

    [

        r"sorry (.\*)",

        ["It's alright.", "No problem.", "Don't worry about it.",]

    ],

    [

        r"i'm (.\*) doing good",

        ["Nice to hear that.", "That's wonderful.",]

    ],

    [

        r"hi|hey|hello",

        ["Hello! How can I assist you?", "Hi there! What can I do for you?",]

    ],

    [

        r"(.\*) (weather|temperature) (.\*)",

        ["I'm sorry, I don't have information about the weather.",]

    ],

    [

        r"quit",

        ["Bye! Take care.", "Goodbye, have a great day!",]

    ],

    [

        r"(.\*)",

        ["I'm sorry, I didn't understand your question. Please try again.",

         "Could you please rephrase your question?",

         "I'm still under development, and I'm learning to understand more.",]

    ],

]

# Create a chat bot object

chatbot = Chat(pairs, reflections)

# Main loop for chatbot interaction

print("Welcome to our customer support chatbot!")

print("Type 'quit' to exit.")

while True:

    user\_input = input("You: ")

    if user\_input.lower() == 'quit':

        break

    response = chatbot.respond(user\_input)

    print("Chatbot:", response)

print("Thank you for using our chatbot!")

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