import datetime

def restaurant\_chatbot():

print("Welcome to the Foodie's Delight Restaurant!")

print("You can ask me about the menu, cost, contact details, reservations, and more!")

while True:

user\_input = input("\nYou: ").lower()

if "menu" in user\_input:

print("Chatbot: Our menu includes pasta, pizza, salads, and desserts.")

elif "cost" in user\_input or "price" in user\_input or "how much" in user\_input:

print("Chatbot: The average cost per person is around $20.")

elif "contact" in user\_input or "phone" in user\_input:

print("Chatbot: You can contact us at +91-1234567890")

elif "reservation" in user\_input or "book" in user\_input:

print("Chatbot: To make a reservation, please call us at +91-1234567890 or visit our website at https://Foodie's Delight-rest.io")

elif "hours" in user\_input:

print("Chatbot: We are open from 11 AM to 10 PM, Monday to Sunday.")

elif "location" in user\_input or "where" in user\_input:

print("Chatbot: We are located at 123 Food Street, Flavor Town.")

elif "special" in user\_input or "today" in user\_input:

print("Chatbot: Today's specials are Butter Garlic Shrimp and Chocolate Lava Cake!")

elif "cuisine" in user\_input or "type of food" in user\_input:

print("Chatbot: We serve Italian and Continental cuisines.")

elif "feedback" in user\_input or "review" in user\_input:

print("Chatbot: We'd love to hear from you! Please leave your feedback at feedback@k-rest.io")

elif "event" in user\_input or "birthday" in user\_input:

print("Chatbot: We offer event and birthday celebration bookings. Contact us for special arrangements!")

elif "date" in user\_input or "time" in user\_input:

now = datetime.datetime.now()

print(f"Chatbot: Today's date and time is {now.strftime('%Y-%m-%d %H:%M:%S')}.")

elif "how are you" in user\_input or "how's it going" in user\_input or "sup" in user\_input:

print("Chatbot: I'm just a bot, but I'm here to help you! How can I assist you today?")

elif "meow" in user\_input:

print("Meow meow meow!")

elif "exit" in user\_input or "quit" in user\_input:

print("Chatbot: Thank you for chatting with us! Have a great day!")

break

else:

print("Chatbot: I'm sorry, I didn't understand that. Can you ask something else?")

# Run the chatbot

restaurant\_chatbot()

Here’s a **detailed explanation** of your Python-based **restaurant chatbot** followed by a curated list of **viva questions and answers** to help you during evaluations.

**🧠 Code Explanation**

This code defines a **simple rule-based chatbot** for a restaurant named **"Foodie's Delight"** using plain Python.

**🔹 1. Import Required Module**

import datetime

* The datetime module is used to show the **current date and time** when the user asks about it.

**🔹 2. Function Definition**

def restaurant\_chatbot():

* The chatbot logic is enclosed in a function for modularity and reusability.

**🔹 3. Welcome Message**

print("Welcome to the Foodie's Delight Restaurant!")

print("You can ask me about the menu, cost, contact details, reservations, and more!")

* Displays a friendly greeting to the user and suggests what kind of queries are supported.

**🔹 4. Main Loop: Handles User Interaction**

while True:

user\_input = input("\nYou: ").lower()

* The chatbot enters an **infinite loop** to keep chatting until the user types "exit" or "quit".
* user\_input.lower() converts input to lowercase for **case-insensitive matching**.

**🔹 5. Pattern Matching Using if-elif**

Each user message is checked for **keywords** using conditions like:

if "menu" in user\_input:

print("Chatbot: Our menu includes pasta, pizza, salads, and desserts.")

* It checks if a certain **keyword/phrase** exists in the user’s message and responds accordingly.

Other examples:

* "cost", "price" → average cost.
* "contact", "phone" → phone number.
* "reservation", "book" → reservation process.
* "hours" → opening times.
* "location" or "where" → address.
* "special" or "today" → today's specials.
* "feedback" → email for reviews.
* "event" or "birthday" → special booking info.
* "date" or "time" → uses datetime.datetime.now() to show current timestamp.

**🔹 6. Fun/Easter Egg Response**

elif "meow" in user\_input:

print("Meow meow meow!")

* A fun Easter egg. If the user types “meow,” the chatbot responds like a cat.

**🔹 7. Exit Condition**

elif "exit" in user\_input or "quit" in user\_input:

print("Chatbot: Thank you for chatting with us! Have a great day!")

break

* Exits the chat loop cleanly.

**🔹 8. Fallback for Unknown Queries**

else:

print("Chatbot: I'm sorry, I didn't understand that. Can you ask something else?")

* Handles unrecognized input gracefully.

**🎤 Viva Questions with Answers**

**🔸 Basic Understanding**

1. **Q:** What is a chatbot?  
   **A:** A chatbot is a program that can simulate conversation with a human, often used for customer support or FAQs.
2. **Q:** What kind of chatbot did you implement?  
   **A:** A **rule-based chatbot** using if-else statements to handle queries about a restaurant.
3. **Q:** Which language is this chatbot written in?  
   **A:** It is written in **Python**.

**🔸 Technical Details**

1. **Q:** How does the chatbot identify user intent?  
   **A:** It looks for **keywords** in the user's input using conditional statements like if "menu" in user\_input.
2. **Q:** What is the purpose of .lower() in the code?  
   **A:** It converts the input to lowercase for **case-insensitive matching** of keywords.
3. **Q:** What does datetime.datetime.now() do?  
   **A:** It returns the **current date and time**.
4. **Q:** What is the use of while True: loop here?  
   **A:** It keeps the chatbot running until the user types "exit" or "quit".

**🔸 Improvements & Extensions**

1. **Q:** How can you improve this chatbot?  
   **A:** By:
   * Adding **natural language processing (NLP)** for better understanding.
   * Using **AI models** like GPT.
   * Integrating with a GUI or website.
   * Storing chat history or handling typos.
2. **Q:** Can this chatbot answer multiple questions in one sentence?  
   **A:** No, it only handles **one keyword at a time** due to the simple if-elif logic.

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