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# Project: AI Chatbot using Python
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# Description: A simple rule-based chatbot that interacts with users.
import datetime
import random
# Greeting responses
greetings = ["hello", "hi", "hey", "good morning", "good evening"]
greet_responses = ["Hello! How can I help you today?",
          "Hi there! What can I do for you?",
          "Hey! How's your day going?",
          "Hi! Need any assistance?"]
# Common questions and their answers
responses = {
 "your name": "I'm ChatBot AI, your virtual assistant!",
 "how are you": "I'm doing great, thanks for asking! How about you?",
 "what is python": "Python is a high-level programming language known for its simplicity and
versatility.",
 "what is ai": "AI stands for Artificial Intelligence - machines that can think and learn like
humans.",
 "who created you": "I was created by Ashish Singh using Python!",
 "time": f"The current time is {datetime.datetime.now().strftime('%H:%M:%S')}.",
 "date": f"Today's date is {datetime.date.today()}",
 "bye": "Goodbye! Have a great day ahead!",
 "thank you": "You're welcome! Happy to help \( \mathbb{I} \) "
}
# Fallback responses
fallback = [
 "I'm not sure I understand that. Could you rephrase?",
 "Sorry, I'm still learning. Can you say it differently?",
 "Hmm... I'll need to learn more about that topic!"
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def chatbot():
 print("\" ChatBot: Hello! I'm your Al assistant. Type 'bye' to end the chat.\n")
 while True:
   user_input = input("You: ").lower()
   # Exit condition
   if "bye" in user_input:
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print("
    ChatBot:", responses["bye"])
      break
   # Greeting detection
   elif user_input in greetings:
      print("\overline{\text{ChatBot:", random.choice(greet_responses))}
   # Response matching
   else:
      found = False
     for key in responses.keys():
        if key in user_input:
          print("
    ChatBot:", responses[key])
          found = True
          break
      if not found:
        print("
    ChatBot:", random.choice(fallback))
# Run chatbot
if __name__ == "__main__":
 chatbot()
```