

Loading and preprocessing

- Data loading: Descripts how we imported the database using pandas
- Data exploration: Mentioned that we examined the structure and information about the data set
- Data preprocessing: Discuss how we handled missing values, performed features selection, and prepared the data for modeling

Sample Python program of chatbot

```
• import random
• # Define responses
• responses = {
                          "hello": ["Hi there!", "Hello!", "Hey!"],
                         "how are you": ["I'm just a bot, but I'm doing fine.", "I don't have feelings, but I'm here to help!"],
                          "bye": ["Goodbye!", "See you later!", "Bye bye!"],
                         "default": ["I'm not sure how to respond to that.", "Could you please rephrase that?", "I'm still
   learning!"]
```

```
# Function to get a response
    def get_response(message):
1.
                  message = message.lower()
                  if message in responses:
                              return random.choice(responses[message])
                  else:
                               return random.choice(responses["default"])
     # Main loop
     print("Chatbot: Hi there! How can I assist you? (type 'bye' to exit)")
    while True:
             user_input = input("You: ")
             if user_input.lower() == "bye":
                         print("Chatbot: Goodbye!")
                         break
            response = get_response(user_input)
            print("Chatbot:", response)
```

SAMPLE OUTPUT FOR THE PYTHON PROGRAM:

THANK YOU