

15. Implement a simple chatbot for answering python questions from text file.

app.py

```
from flask import Flask, request, render_template
app = Flask(__name__)
def load_questions():
    questions = { }
    with open('python_questions.txt', 'r') as file:
        lines = file.readlines()
        for line in lines:
            question, answer = line.strip().split("|||")
            questions[question.strip()] = answer.strip()
    return questions
python_questions = load_questions()
@app.route('/')
def chatbot_page():
    return render_template('chatbot.html')
@app.route('/ask', methods=['POST'])
def answer_question():
    user_question = request.form.get('user_question')
    if user_question in python_questions:
        answer = python_questions[user_question]
    else:
        answer = "Sorry, I don't know the answer to that question."
    return render_template('chatbot.html', user_question=user_question,
answer=answer)
if __name__ == '__main__':
    app.run(debug=True)
```

python_questions.txt

What is Python? ||| Python is a high-level programming language.

How to declare a variable in Python? ||| You can declare a variable in Python using the assignment operator (=).

Chatbot.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Python Chatbot</title>
  <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.mi
n.css">
</head>
<body>
  <div class="container mt-5">
    <h1>Python Chatbot</h1>
    <form method="POST" action="/ask">
      <div class="form-group">
        <label for="user_question">Ask a Python question:</label>
        <input type="text" class="form-control" id="user_question"
name="user_question" required>
      </div>
      <button type="submit" class="btn btn-primary">Submit</button>
    </form>
    {% if user_question %}
    <h3>Your Question:</h3>
    <p>{{ user_question }}</p>
    <h3>Answer:</h3>
    <p>{{ answer }}</p>
    {% endif %}
  </div>
</body>
</html>
```