

### 1. Set Up Flask Project:

1. Create a new directory for your project.
2. Set up a virtual environment for your Flask application.

### 2. Install Required Dependencies:

1. Install Flask and any other necessary libraries.

### 3. Create Flask App:

1. Create a Python file (e.g., `app.py`) to define your Flask application.
2. Import necessary modules like Flask, `render_template`, and `request`.

### 4. Create HTML Templates:

1. Create a folder (e.g., `templates`) to store your HTML templates.
2. Create an HTML file (e.g., `index.html`) where you'll embed the chatbot interface.

### 5. Integrate Chatbot API:

1. In your Flask app, integrate the ChatGPT API using HTTP requests. You'll need to make POST requests to OpenAI's API endpoint.

### 6. Handle User Input:

1. Set up routes in your Flask app to handle user input from the chat interface.
2. Extract user messages from the POST request and send them to the ChatGPT API.

### 7. Receive and Display Bot Responses:

1. Retrieve the bot's responses from the API and pass them back to the chat interface.

### 8. Render Templates:

1. Use the `render_template` function in Flask to render your HTML templates.

### 9. CSS and Styling:

1. Apply CSS styles to your HTML templates to make the chat interface look appealing.

### 10. Test Your App Locally:

1. Start your Flask app locally and test it in your web browser to ensure everything is working as expected.

## Set Up a Flask Project:

Create a new directory for your project and set up a basic Flask application. If you haven't already, install Flask using `pip install Flask`.

## Create HTML Templates:

Create HTML templates for your web pages. For this example, you'll need at least two templates: one for the main chat interface and another for displaying responses.

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="UTF-8">
```

```
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
  <title>ChatGPT Web App</title>
```

```
</head>
```

```
<body>
```

```
  <div id="chatbox">
```

```
    <div id="chat"></div>
```

```
    <input type="text" id="userInput" placeholder="Type a message...">
```

```
    <button onclick="sendMessage()">Send</button>
```

```
  </div>
```

```
<script src="{{ url_for('static', filename='script.js') }}"></script>
```

```
</body>
```

```
</html>
```

(for displaying bot responses):

```
<div class="message">{{ response }}</div>
```

## Create Static Files:

Create a directory named `static` inside your project folder. Inside the `static` directory, create a JavaScript file `script.js`.

```
function sendMessage() {
```

```

var userInput = document.getElementById("userInput").value;

document.getElementById("chat").innerHTML += "<div class='message'>" + userInput + "</div>";

document.getElementById("userInput").value = "";


// Send the user input to the Flask backend
fetch("/get_response", {
  method: "POST",
  headers: {
    "Content-Type": "application/json",
  },
  body: JSON.stringify({ message: userInput }),
})
.then(response => response.json())
.then(data => {
  document.getElementById("chat").innerHTML += data.response;
});
}

```

### Set Up Flask Routes

: In your Flask app, set up routes for rendering the templates and handling the chat interactions.

```
from flask import Flask, render_template, request, jsonify
```

```
import openai
```

```
app = Flask(__name__)
```

```
openai.api_key = 'YOUR_OPENAI_API_KEY' # Replace with your OpenAI API key
```

```
@app.route('/')

```

```
def index():

```

```
    return render_template('index.html')
```

```
@app.route('/get_response', methods=['POST'])
def get_response():
    user_message = request.json['message']

    response = openai.Completion.create(
        engine="davinci", prompt=user_message, max_tokens=50
    )

    bot_response = response.choices[0].text.strip()

    return jsonify({'response': "<div class='message bot'>" + bot_response + "</div>"})
```

```
if __name__ == '__main__':
    app.run(debug=True)
```

Make sure to replace `'YOUR_OPENAI_API_KEY'` with your actual OpenAI API key.

### Run the Flask App:

Run your Flask application by executing `python app.py` in your project directory.