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ASSIGNMENT

PHASE - 4

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Building the chatbot by integrating it into a web app using Flask.

To build a chatbot using Python and integrate it into a web app using Flask, you can follow these steps:

1. Install Flask: Start by installing Flask, a web framework for Python, using the command `pip install flask` on your terminal.
2. Import Flask: Create a new Python file and import the Flask module.

```
python from flask import Flask, request, jsonify
```
3. Initialize Flask: Initialize a new Flask app.

```
python app = Flask(__name__)
```
4. Create a webhook endpoint: Set up a route for a webhook endpoint where your chatbot can receive messages.

```
python @app.route('/webhook', methods=['POST']) def webhook():
```
5. Create a function to process incoming messages: Write a function that can process and generate responses to incoming messages.

```
python def process_message(message): # Process message and generate response return response
```
- 6.

Retrieve message from POST request: In the webhook function, retrieve the message from the POST request and call the `process_message` function.

```
python @app.route('/webhook', methods=['POST']) def webhook(): data =
```

```
request.get_json() message = data['message'] response = process_message(message) return jsonify(response)
```

7. Start the server: At the end of your Python file, start the Flask app.

```
python if __name__ == '__main__':
```

```
app.run()
```

8. Integrate your chatbot logic: Implement the logic to process messages and generate responses inside the

```
process_message function. You can use any chatbot framework or library of your choice, such as NLTK, ChatterBot, or even a custom-built model.
```

```
python def process_message(message): # Implement chatbot logic # You can use NLTK, ChatterBot, or any other chatbot library # Example using ChatterBot: from chatterbot import ChatBot from
```

```
chatterbot.trainers import ChatterBotCorpusTrainer bot = ChatBot('MyChatBot') trainer = ChatterBotCorpusTrainer(bot)
```

```
trainer.train("chatterbot  
.corpus.english")  
response =  
bot.get_response(mess  
age) return  
str(response) 9.
```

Customize your chatbot: Customize the chatbot logic, training, and responses based on your requirements. 10.

Run the web app:

Finally, run your Python file, and your Flask web app with the integrated chatbot will be up and running.

This is a basic outline of how you can build a chatbot using Python and integrate it into a web app using Flask.

You can further enhance the chatbot's capabilities by integrating it with APIs, databases, or even machine learning models for more advanced interactions.