CHATBOT IN PYTHON:

PROBLEM DEFINTION:

In this part we will continue building our project using extended dataset codes.We will build our chatbot by integrating it into a web app using flask.

PROCESS IN DEVELOPMENT OF CHATBOT:

Creating a Chatbot and integrating it into a web app using Flask, a Python web framework, involves several steps. Now we will create a simple Chatbot using the ChatterBot library and integrating it into a Flask web app.

Setting up our Python Environment:

pip install Flask

pip install chatterbot

pip install chatterbot_corpus

Creating a Flask Web App:

from flask import Flask, render_template, request

app = Flask(__name__)

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

def index():

    return render_template('index.html')

if __name__ == '__main__':

    app.run(debug=True)
```

<u>Creating HTML Templates:</u>

```html
<!DOCTYPE html>

<html>

<head>

    <title>Chatbot Web App</title>

</head>

<body>

    <div id="chat-container">

        <div id="chat-history"></div>

        <input type="text" id="user-input" placeholder="Type your message...">

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

    </div>
```

```html
    <script src="static/main.js"></script>

</body>

</html>
```

Creating a Javascript file:

```javascript
function sendMessage() {

    var userMessage = document.getElementById("user-input").value;

    var chatHistory = document.getElementById("chat-history");

    // Display the user message in the chat

    chatHistory.innerHTML += `<p>User: ${userMessage}</p>`;

    // Send the user message to the server

    fetch("/get_response", {

        method: "POST",

        body: JSON.stringify({ message: userMessage }),

        headers: {

            "Content-Type": "application/json",

        },

    })
```

```javascript
    .then((response) => response.json())

    .then((data) => {

        // Display the chatbot's response in the chat

        chatHistory.innerHTML += `<p>Chatbot:
${data.message}</p>`;

    });

    // Clear the user input field

    document.getElementById("user-input").value = "";

}
```

Creating a Chatbot Route in Flask:

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

from chatterbot import ChatBot

from chatterbot.response_selection import
get_most_frequent_response

app = Flask(__name__)

chatbot = ChatBot('MyBot',
response_selection_method=get_most_frequent_response)

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

```python
def index():

    return render_template('index.html')

@app.route('/get_response', methods=['POST'])

def get_bot_response():

    user_message = request.get_json()["message"]

    response = chatbot.get_response(user_message)

    return jsonify({"message": str(response)})

if __name__ == '__main__':

    app.run(debug=True)
```

Train the Chatbot:

```python
from chatterbot.trainers import ChatterBotCorpusTrainer

trainer = ChatterBotCorpusTrainer(chatbot)

trainer.train("chatterbot.corpus.english")
```

Run our Flask App:

```
python your_app.py
```

CONCLUSION:

Thus we have created the Chatbot by integrating it into a web app using flask.