Assignment No. : 01

Chatbot Summary

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Chatbot Summary:

This chatbot utilizes a words probability-based approach to generate responses. It calculates the percentage of recognized words in the user's input to determine the appropriate reply. The core functionality includes word probability calculation, reply generation based on probability scores, and handling of unknown inputs.

Functionality:

- Words Probability Calculation:

The words_probability function calculates the percentage of recognized words in the user's message.

It uses a simple counting mechanism to determine the probability based on recognized and required words.

- Reply Generation:

The reply function generates a reply based on the calculated probability score.

It compares the probability score against a threshold to decide whether to reply with a default response or an "unknown" response from the response module.

- User Interaction:

The get_reply function processes user input, splits it into words, and calls the reply function to generate a response.

If the calculated reply score is above a certain threshold, it returns an "unknown" response; otherwise, it returns a default greeting message ("Hello!").

Usage:

- Input Format:

Users can input messages in natural language format.

The bot processes the input and calculates the probability of recognized words.

- Output Format:

The bot outputs responses based on the calculated probability score.

If the score indicates a high probability of a valid response, it replies with a default greeting. Otherwise, it responds with an "unknown" message.

Improvements:

Implementing a more sophisticated word recognition mechanism could improve accuracy.

Conclusion:

The words probability-based response bot offers a basic yet effective approach to generating responses in chat interactions. By calculating the probability of recognized words, it provides a simple but functional conversational experience