

4th semester Mini Project on
chatbot by the students of
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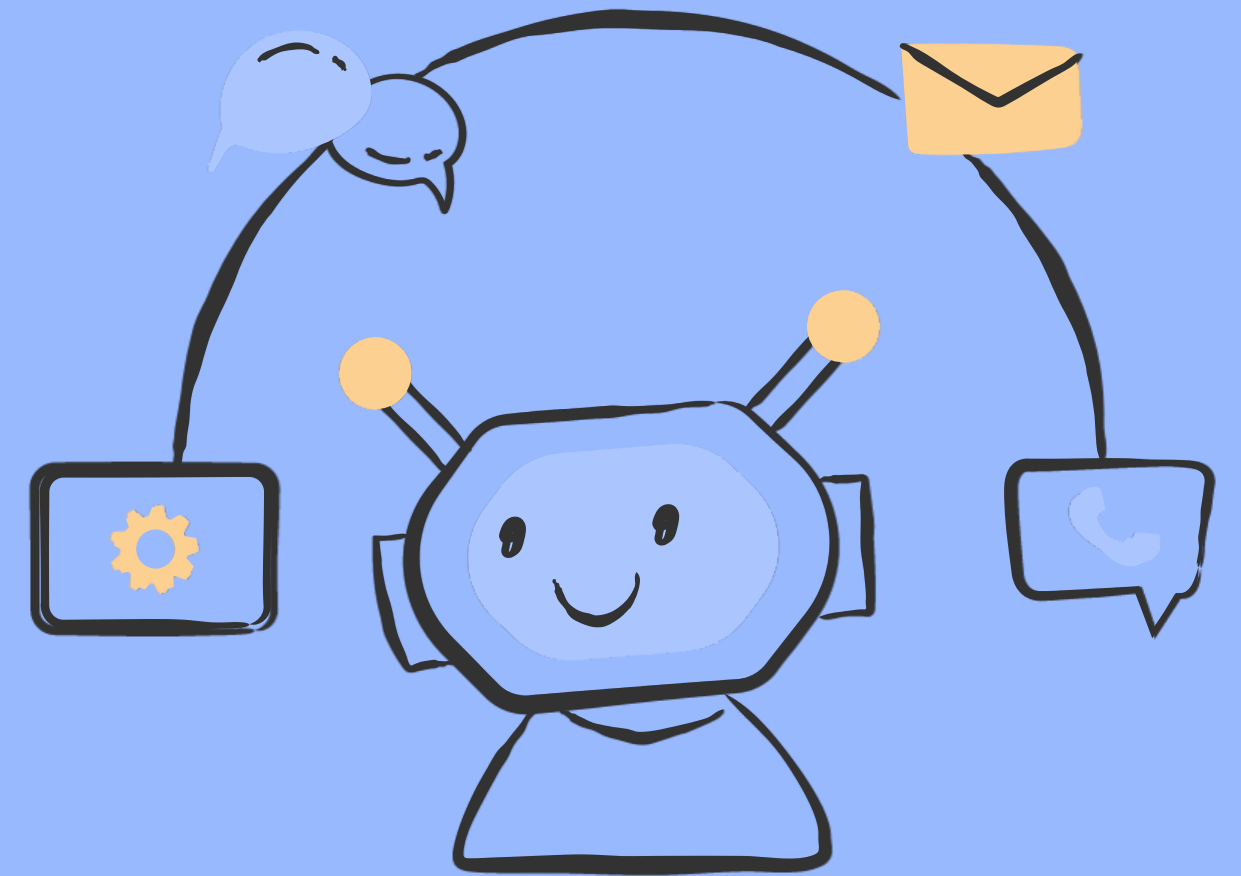
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WHAT ARE CHATBOTS

Chatbots are computer programs or artificial intelligence systems designed to simulate human conversation and interact with users through text or speech. They are typically deployed in messaging platforms, websites, or applications, where they can answer questions, provide information through text based interfaces in a natural language format.



TYPES OF CHATBOTS

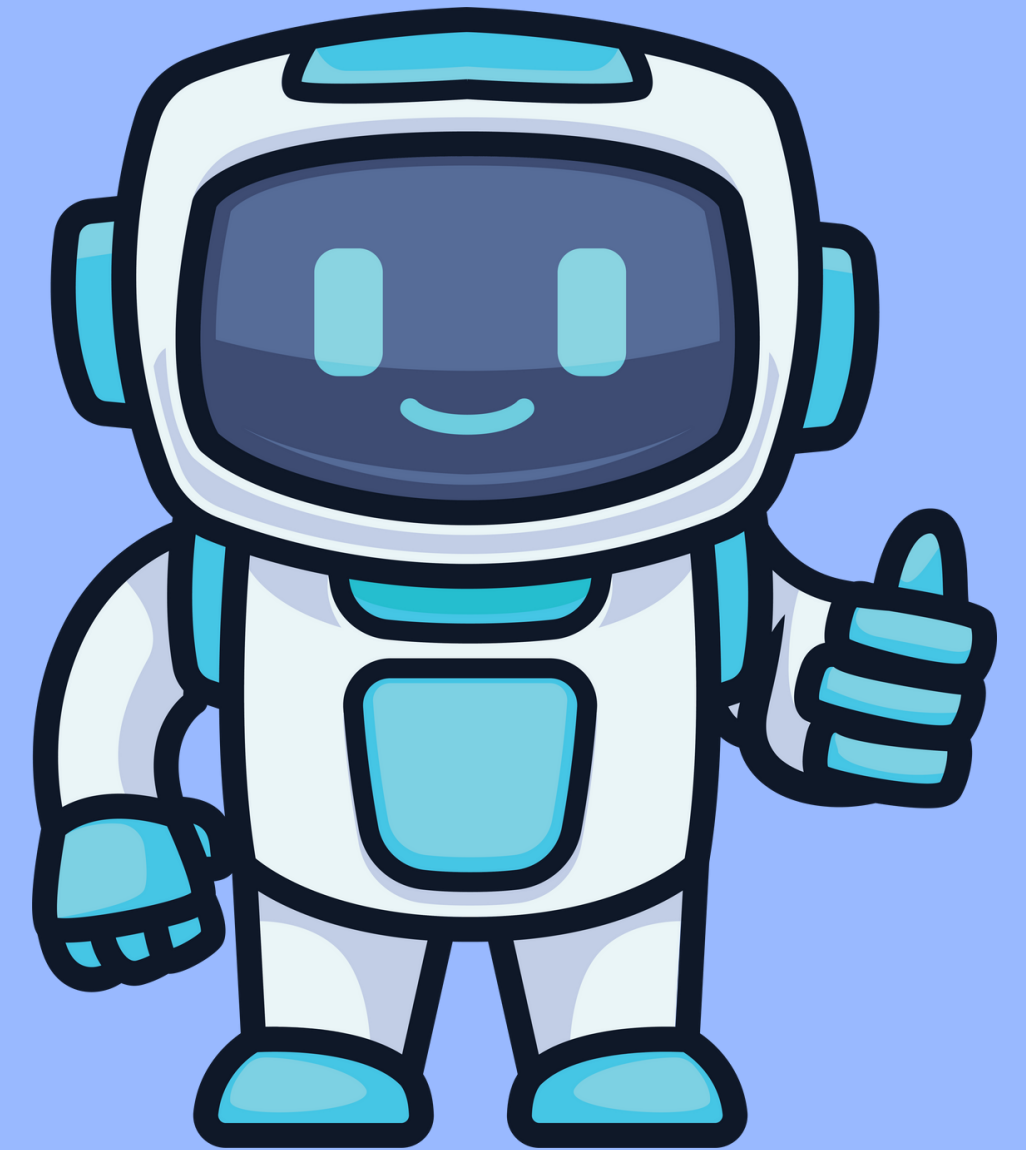
Rule Based Chatbots:

- Rule-based chatbots, are chatbot systems that operate on a set of predefined rules and patterns.
- Rule-based chatbots have limited flexibility and scalability compared to AI-powered chatbots.
- They can be quicker to implement and require less ongoing maintenance.



AI Based Chatbots

- These chatbots, leverage advanced technologies such as machine learning and natural language processing (NLP) to simulate human-like conversation .
- AI-based chatbots can maintain context which allows them to provide more personalized and relevant responses to users over time.
- AI-based chatbots can be used in a wide range of applications, including customer service, e-commerce, healthcare, education, and many others.



Why we chose to create an AI Based Chatbot?



AI-based chatbots are capable of understanding natural language inputs from users, allowing for more intuitive and human-like interactions.



AI-based chatbots are more adaptable and scalable than rule-based chatbots by learning from data .

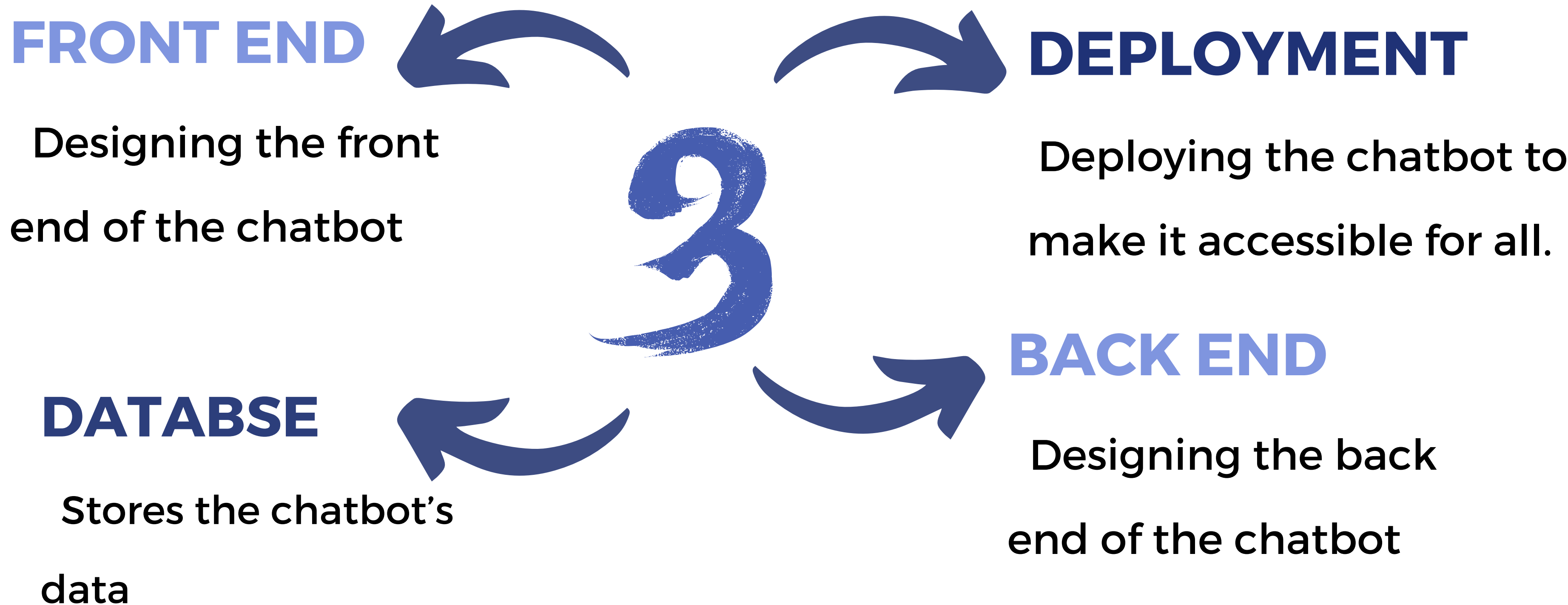


Unlike an AI based bot, a rule based chatbot requires more comprehensive understanding of the specific use case and the user input as well as responses needs to be programmed in advance. This requires more planning and effort.



If the chatbot needs to handle a wide range of user input and provide more complex responses, an AI chatbot may be a better choice.

CHATBOT ARCHITECTURE



CHATBOT ARCHITECTURE

1. FRONT END - The front end of a chatbot refers to the user interface through which users interact with the chatbot. The primary component of the chatbot front end is the messaging interface where users input their messages and view responses from the chatbot.

2. Database- The database is where all of the chatbot's data is stored including other relevant data. We have used Chroma DB as our database which enhances the chatbot's ability to learn and adapt over time, ultimately improving its performance.

3. Back-end- The backend of the chatbot comprises the components responsible for processing user requests, generating responses. This can include machine learning algorithms to understand user intents and context and then retrieve relevant information.