

Chatbots



Navidut Tauhid

UCC Consultant and Cloud Architect

<https://www.linkedin.com/in/naveedtauheed/>



Overview

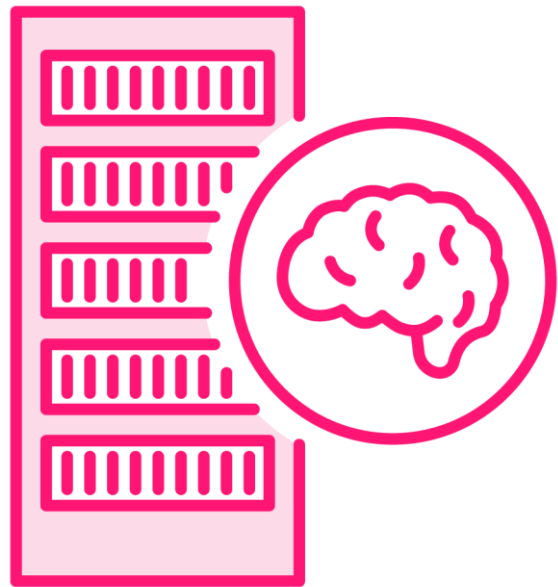


Chatbot:

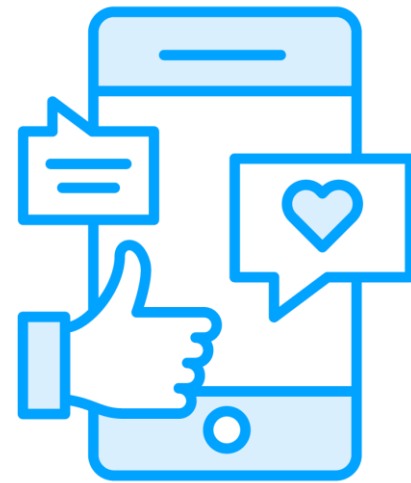
- Generative AI chatbot
- Architecture
- Components required
- Design and develop chatbots
- Effective and engaging



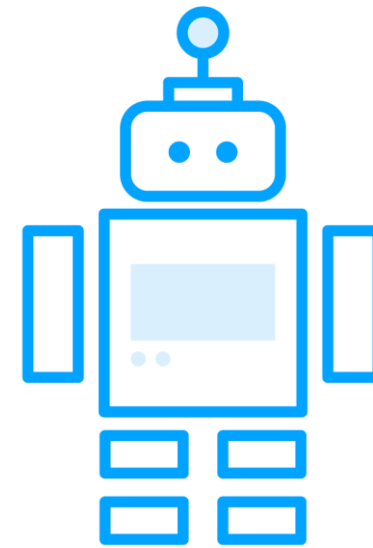
Chatbots



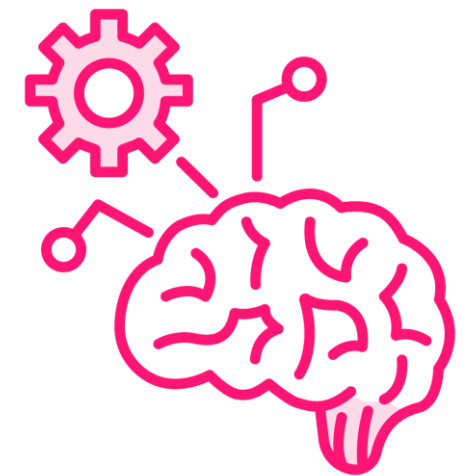
**AI-powered
programs**



**Interact with
users**



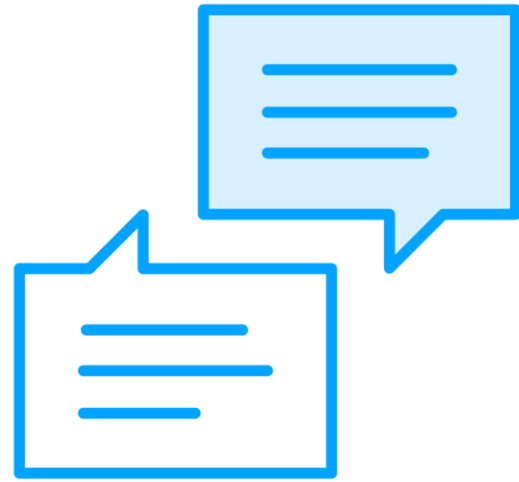
Powered by AI



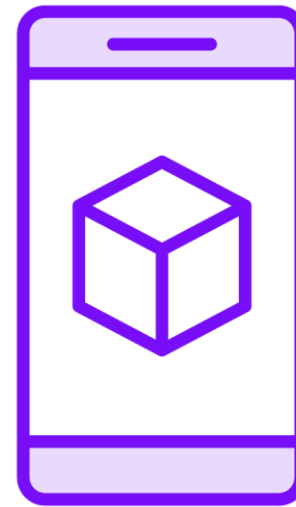
**Robust with
generative AI**



Google Chatbot



Conversational AI



Gen App Builder



AI-powered chatbots



Amazon Connect Chatbot



Popular AI chatbot



Uses Amazon Lex, Polly, Rekognition



Provides natural language experience





Chatbot Architecture



Chatbot Architecture

**Natural Language
Processing (NLP)**

**Breaks down user
input**

**Identifies the user's
intent**



Chatbot Architecture - Knowledge Base

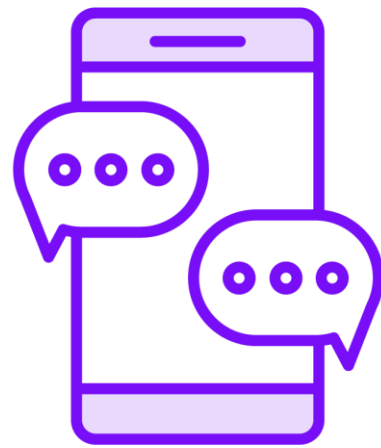


Repository of Information

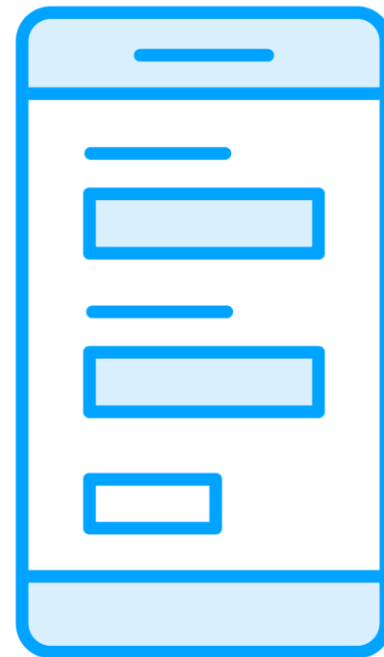


Answers User Questions

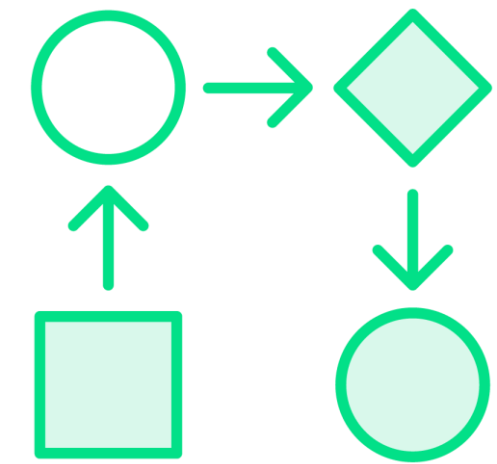
Chatbot Architecture - Dialog Management



**Manages chat
conversations**



Generates responses



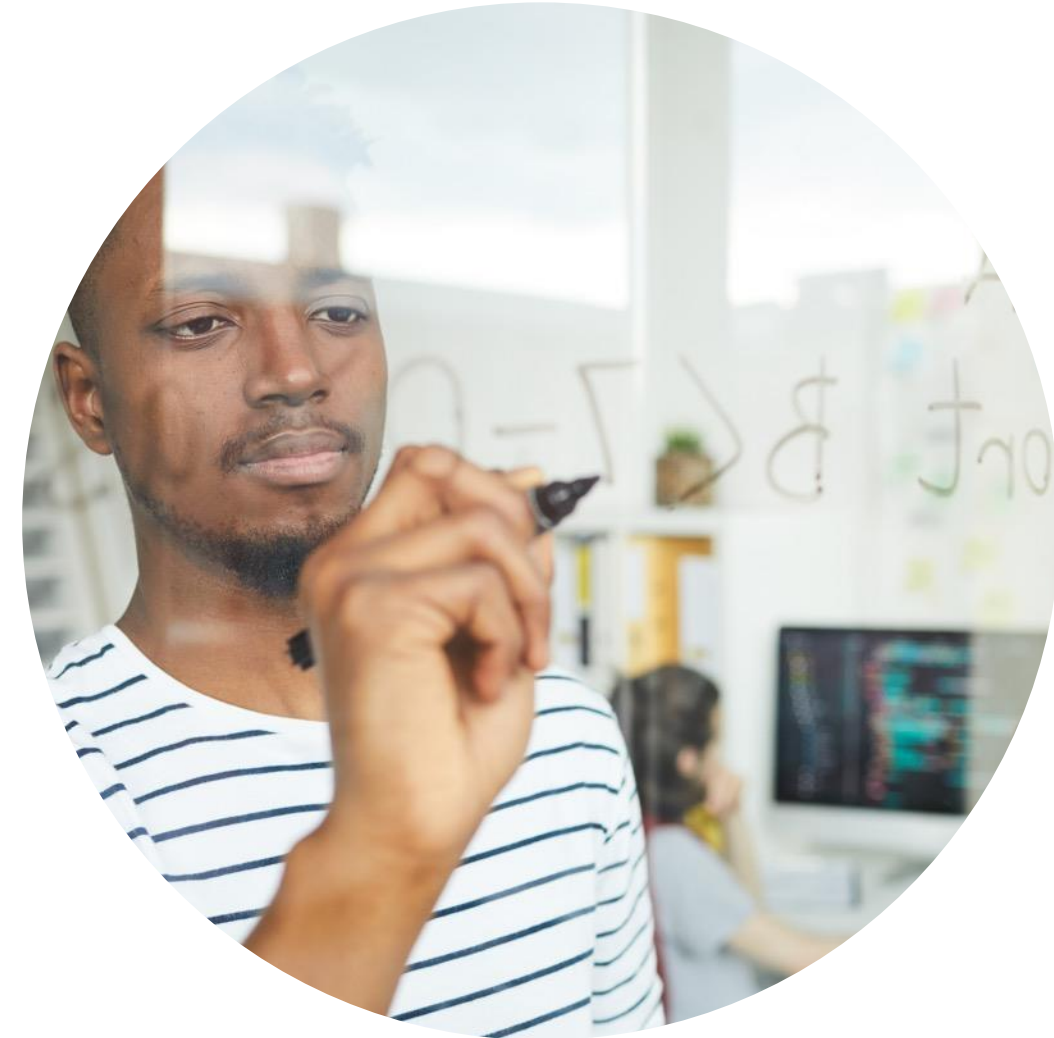
**Routes users to
agents**



Chatbot Architecture - User Interface (UI)



User interaction



**Text-based or graphical
interface**



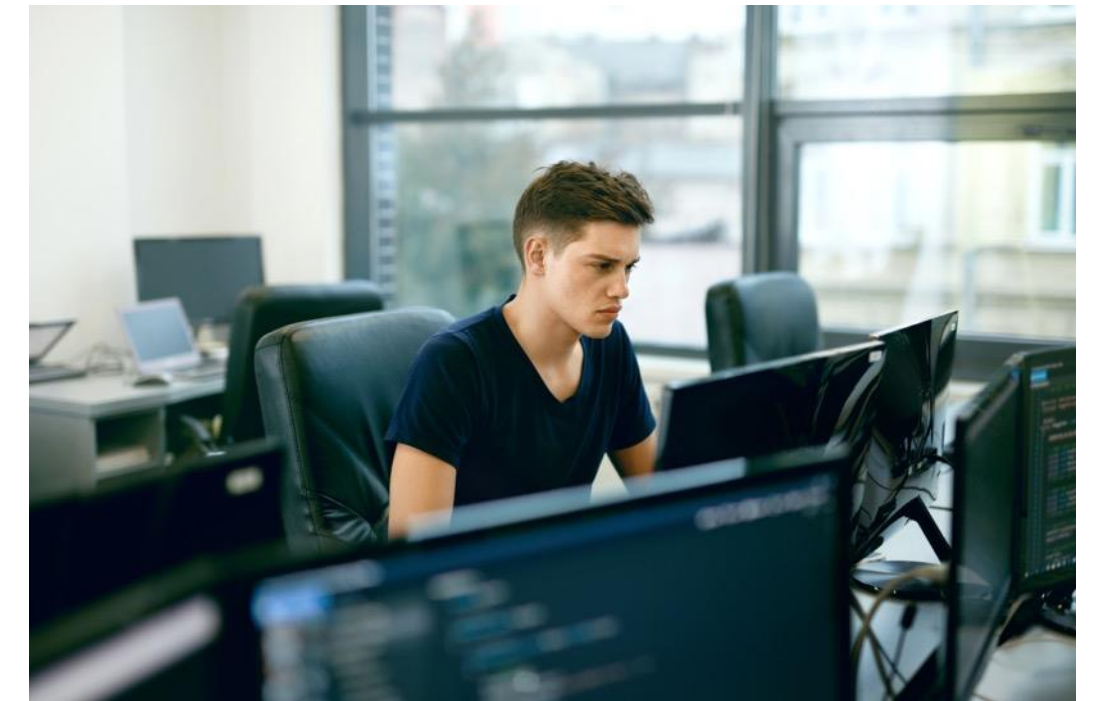
Chatbot Architecture - Additional Features



Machine learning (ML)



Sentiment analysis



Data analytics



Demo



Review of successful chatbot use cases:

- Generative AI chatbots



Summary



Chatbots

Architecture:

- Core elements
- Understanding of the architecture
- Generative AI chatbots
- Powerful and robust

