Cloud Application Development - Group 5

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Project name   **:** Chatbot deployment with IBM Watson

Chatbot deployment with IBM Watson

Project Phase 1: Problem Definition and Design Thinking

Problem Definition:

The project aims to create a chatbot using IBM Cloud Watson Assistant to serve as a virtual guide on messaging platforms such as Facebook Messenger and Slack. The chatbot's primary objectives are to provide users with valuable information, address frequently asked questions (FAQs), and offer a friendly and engaging conversational experience. Key project components include designing the chatbot's persona, configuring its responses, integrating it with messaging platforms, and ensuring an optimal user experience.

Design Thinking:

1. Persona Design:

➢ Chatbot Name: The chatbot will be named "InfoGuide."
➢ Tone: InfoGuide's tone will be friendly, approachable, and informative.
➢ Style of Communication: InfoGuide will use clear and concise language, avoiding technical jargon, and will employ a conversational style to engage users effectively.

2. User Scenarios:

 Identify common user scenarios and FAQs:

- User Scenario 1: A user wants to know the opening hours of a local business.
- User Scenario 2: A user is looking for recommendations on nearby restaurants.
- User Scenario 3: A user needs assistance with troubleshooting a common technical issue.
- User Scenario 4: A user is seeking information about upcoming events in their area.
- User Scenario 5: A user wants to learn more about the company's products and services.

3. Conversation Flow:

Design a conversation flow that outlines how InfoGuide will respond to user queries and prompts:

- Greeting and Introduction
- User Scenario Identification
- Response Based on Scenario
- Follow-up Questions (if necessary)
- Providing Relevant Information
- Closing the Conversation

4. Response Configuration:

- Configure the chatbot's responses using Watson Assistant's capabilities:
- Intents: Define user intents, such as "Ask Opening Hours," "Request Recommendations," "Technical Support," etc.
- Entities: Identify entities like location, business names, or product categories to extract specific information.

➢ Dialog Nodes: Create dialog nodes to guide the conversation and trigger relevant responses based on detected intents and entities.

5. Platform Integration:

➢ Integrate InfoGuide with messaging platforms, including Facebook Messenger and Slack, using the respective APIs and connectors.
➢ Ensure that the chatbot can seamlessly communicate with users on these platforms, maintaining consistent branding and functionality.

6. User Experience:

➢ Prioritize user experience to ensure users find the interaction with InfoGuide intuitive and helpful:
➢ Clear Prompts: Provide clear and concise prompts to guide users on how to interact with the chatbot.
➢ Informative Responses: Ensure that InfoGuide's responses are informative, accurate, and tailored to the user's queries.
➢ Error Handling: Implement effective error handling to gracefully handle unexpected user inputs.
➢ User Feedback: Incorporate mechanisms for users to provide feedback on their interaction with InfoGuide, allowing for continuous improvement.

METHODOLOGY:

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              Define Chatbox Purpose

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              Gather Requirements

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        Design Conversation Flow and intents

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            Choose IBM Watson Services

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            Create IBM Watson Services

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                 Train chatbot

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│         Test chatbox            │
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│         Deploy chatbot          │
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