CHATBOT DEVELOPMENT WITH IBM CLOUD WATSON ASSISTANT EDIT SET ACCESS PAGE ACTIONS

PROBLEM DEFINITION

the project involves creating a chatbot using ibm cloud watson assistant. The goal is to develop a virtual guide that assists users on messaging platforms like facebook messager and slack. The chatbot should provide helpful information, answer freqenty asked questions (FAQs),and offer a friendly conversational expreience. The project includes desinging the chatbot persona,configuring responses,integrating with messaging platforms,and ensuring a seamless user experience.

IMPORTANCE OF THE PROJECT

- The IBM Watson chatbot has been built on the IBM Cloud platform, enabling it to process large amounts of data at high speed.
- It also uses deep learning algorithms to understand user intent and context. It offers several benefits to companies looking to provide their customers with a convenient way to get information.
- Natural Language Processing – To understand users' intent and context, the chatbot uses natural language processing techniques. This allows it to provide accurate responses in a timely manner even when there are thousands or millions of users interacting with it simultaneously.
- Deep Learning Algorithms – To precisely know customers' interests and behavior, the chatbot uses deep learning algorithms. This allows it to provide more appropriate responses in the future.
- Conversational Interface – The IBM Watson Chatbot has been designed with a conversational interface that makes it easy for users to interact by typing or speaking their queries.
- Multiple Channels – Users can access this chatbot on different channels like Facebook Messenger, Skype, Slack, and many more to access it from anywhere at any time.
- Dialog Management – You control the conversation flow with this feature of the IBM Watson Chatbot platform. You can decide which questions are asked first, whether there will be branching conversations, etc., based on the user response to previous questions/statements made by the bot.

OBJECTIVE AND SCOPE OF THE PROJECT

- Gather requirement for the conversatrion and how the customer is supporting the use case today .
- Define persona.
- Build empathy map.
- Build system context diagram.
- Define channels.
- Define intent and source of utterances.
- Create add more intents and dialog flow.
- Develop the web or micro-service responsible to interact with Watson conversation and implement some of the business context.
- Add any other component to complement the business requirements, it could be Watson discovery, ODM business rules, BPM process.

IMPLEMENTATION

Task 1: Create the Assistant service

The first task is to create an instance of Watson Assistant on IBM Cloud.

Task 2: Create a workspace

You must use workspaces to maintain separate intents, user examples, entities, and dialog flows for each application. Watson Assistant uses a step-by-step approach to guide you to create workspace, intents, and so forth.

Task 3: Create intents

Add intents. An *intent* is a group of examples of things that a user might say to communicate a specific goal or idea. To identify intents, start with something that a user might want and then list the ways that the user might describe it. For each intent, think of the various ways that a user might express his or her desire—those are the examples. Examples can be developed by using a crowdsourcing approach.

Task 4: Test the intents

Next, test your conversations.

Task 5: Add entities

An *entity* is a portion of the user's input that you can use to provide a different response to a particular intent.

Task 6: Build the dialog

After you specify your intents and entities, you can construct the dialog flow.

Task 7: Complete advanced dialog work

Each time the dialog returns a response and waits for user input, the dialog stores the ID of the node where the conversation must resume. This node is called the *contextual node*. Its ID is added to the context.system.dialog_stack property, which contains a JSON array of dialog node IDs that are on the dialog stack.

Task 8: Use the API

To use the API, you need the service credentials and the tool to perform an HTTP request. For detailed instructions, see **Use Watson Assistant API**.

CONCLUSION

A chatbot is one of the simple ways to transport data from a computer without having to think for proper keywords to look up in a search or browse several web pages to collect information; users can easily type their query in natural language and retrieve information.