AI-DEVELOPMENT OF CHATBOT TRAVEL VIA BOT

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***Abstract*: With the advent of new Technology, the AI becomes more popular and important in technological field. The paper entitled "Travel Via Bot" is a chatbot developed to create an intelligent conversation between the user and the bot. The main aim of the bot is to help the user in planning the trip. This bot provides the information of all the states and union territories of India. It also helps to book hotel rooms for stay and bus tickets to travel to the desired location. This bot simplify and automate the travel experience. A chatbot is a computer program and the main aim of designing it was to stimulate an intelligent conversation. The main feature of the bot is can take user input in many formats like text, voice, sentiments, etc. For this purpose, many open source platforms are available and this bot is developed using AIML.**

1. INTRODUCTION:

The main objective of "Travel Via Bot" is to modernize the way of planning the trip. The bot mainly deals with tourist spots, hotel rooms and the transport during the trip. The bot divides the tourist spots into two category as Indian states and union territory to simplify the work for the user. It also direct the user to all the hotels in the specified location and It also shows the transport facilities to the user. Artificial Intelligence Markup Language (AIML) which is used to develop up a conversational agent (chatbot) artificially. In this project, "API.AI" is used. API.ai seems to have found out the flaw of letting the user defined entities and intents by entering multiple utterances and hence provides a huge set of domains. This method is used for developing a chatbot which will interact with user using text and voice responses.

2. EXISTING SYSTEM

This system does not have any existing system. The planning of trip is made manually by getting the information of tourist spots, hotels and transport details separately. The user has to manually search for each details separately. This is a slow process and so it takes more time for the user to plan the trip. The study of the existing process of planning the trip revealed that this method has several drawbacks.

DISADVANTAGES:

- Manual Process
- Difficult To Search
- Time Delay
- Increase Manpower

3. PROPOSED SYSTEM :

The project "TRAVEL VIA BOT" is developed using dialogflow-api.ai. This application works on all the platforms that supports AI. The process of planning the trip has been automated and modernized through this bot. It works even with a minimum amount of internet. It allows user to get the information of the tourist spots in Indian states and union territories, helps in booking rooms for stay and also provide the transport facilities. The bot can be accessed, anywhere and anytime. The bot has simplified the work of the user.

ADVANTAGES:

- Automatic Process
- Less Manpower
- Easy to search
- High speed

4. DEVELOPMENT OF THE BOT:

➢ **Agents**: Agents are classified as Natural Language Understanding modules. They can be used by user app, product, or service to transform natural user requests into actionable data. This transformation occurs when a user input matches one of the intents inside user agent. The predefined or developer – defined components of agents which process the user's request are known as the intents. Agents are designed to manage a conversation with the help of the context, intent priorities, slot filling, responses and fulfillment via webhook. The diagram gives below shows the handling of a user request. An agent encompasses the Dialogflow components.

➢ **Intents**: The mapping between what the user says and what action to be taken by the software is known as an intent. Intent interfaces have the following sections:

- Training Phrases
- Action
- Response
- Contexts

➢ **Knowledge:** knowledge base contains information about the documents that will be used by Dialogflow when looking for responses to user requests. Knowledge connectors offer less response precision and control than intents. When using both intents and knowledge connectors, developer should define the intents to handle complex user requests that require special handling and precision, and let knowledge connectors handle simple requests with responses automatically extracted from the given documents. When the developer, identify content in FAQs that the developer want to expand on, the developer can convert the questions into defined intents, giving the developer the full control. The developer can enable knowledge bases for the agent, so all detect intent requests may find automated responses using the knowledge bases. Alternatively, the developer can specify one or more knowledge bases in the individual detect intent requests.

➢ **Rich Messages:** In the Response section, you can add tabs for some of our supported integrations. This allows you to define default or integration-specific responses. In each tab, you can add up to 10 of the same or different message types. The DEFAULT tab and the integration tabs offer different message types. The integration tabs allow you to add images, cards, and quick replies. To add integration tabs, either enable the respective integrations on the Integrations page or click on the + sign next to the DEFAULT tab. To add message elements, click the ADD MESSAGE CONTENT button. Your agent's response can consist of up to 10 sequential messages. If you create intents via the /intents endpoint, the order of messages will correspond to the messages array elements order.

5. INTENTS OF THE BOT:

➢ **Welcome Intent:** The bot gives a short introduction about itself. It starts the conversation with a welcome note and explains its features. It informs the user that it is meant to help user in planning the trip by providing the information about various tourist spots, transport facilities and hotels after categorizing it into three different modules. It finally gets the user's name.

➢ **Name Intent:** The bot welcomes the user with the name which it got in the welcome intent. Then it asks the user whether the user want the bot to plan the trip and also provide the suggestion chips to help the user. The name intent consist of a sub- intent yes. When the yes intent is triggered it provides three suggestion chips tourist spots, travel and hotels to the user.
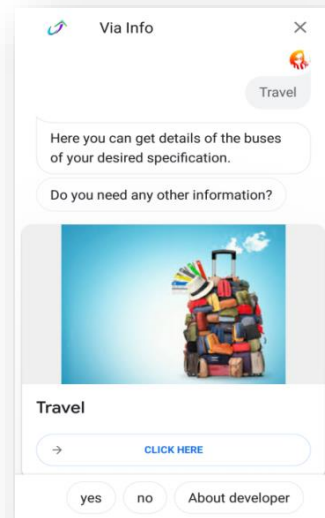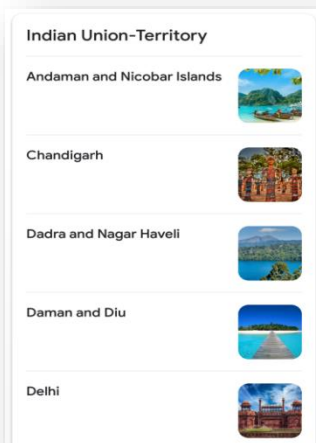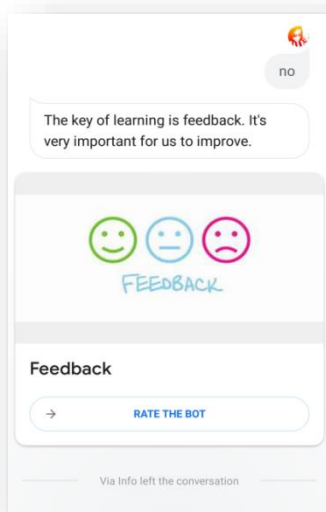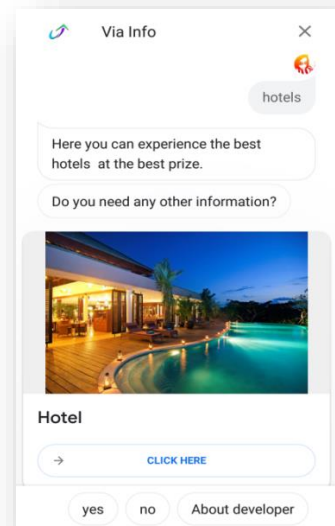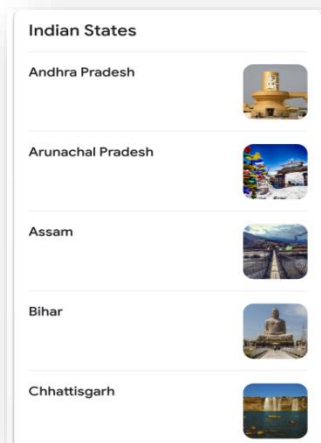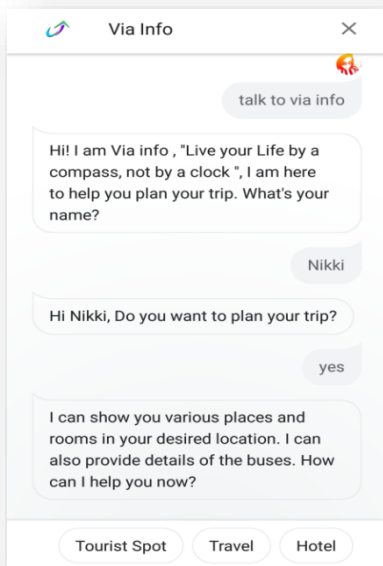
➢ **Tourist spot Intent:** The tourist spot intent consists of two sub intent, Indian states and Indian union territory. The details of the tourist spots are sorted in the alphabetical order in the list. The sub intent states consists of 29 sub intents each named as a state. The sub intent union territory consists of 7 sub intents each named as a union territory.

➢ **Travel Intent:** The travel intent provides the transport details. The bot act as a gate way and directs the user to a web page that will show various options to the user about the bus. The user can filter and sort the buses based on their convenience.

➢ **Hotel Intent:** The hotel intent provides the details of the hotel rooms for the user to stay during the time of travel. The bot act as a gate way and directs the user to a web page that will show various options to the user about the hotel rooms. The user can filter and sort the hotel rooms based on their convenience.

➢ **Feedback Form:** After using the bot the user can rate the bot with the maximum of 5 stars and also provide additional comments.

6.   **THE RESPONSE OF THE BOT:**

7. LIFECYCLE OF A RELEASE:

There are two types of release environments that the Actions Console supports:

Alpha Testing:

The developer should create an alpha release to quickly test early versions of your Action. This channel lets the developer distribute an Action to a small set of users without going through a full Google review. Users will be given warnings that the Action hasn't undergone a Google review for policy compliance. Once the developer tested with a smaller group of friends or trusted users, the developer can expand the test to a closed beta release.

Beta Testing:

This channel lets the developer distribute an Action to a limited set of users after passing a full Google review. The developer should use this channel to give users outside the developers organization access to early versions of the Action. Users will be informed that the Action is a preview version. Since the closed beta version has passed Google review, the developer can elect to make it public at any time without another review by Google.

8. CONCLUSION:

It has been a great pleasure to work on this exciting and challenging "TRAVEL VIA BOT" project. The main objective of the project has been satisfied, the project is developed by making the best use of the software and hardware tools mentioned above. Thus the system is very handy in nature, easily accessible and time efficient. The unique feature in this project is that it encourages and accepts suggestion and complains from the user which is very important to improve the quality of the bot and increase the standards. It also provides knowledge about the latest technology used in developing a chatbot that will be great demand in future. This will provide better opportunities and guidance in future in developing projects independently.

9. FUTURE ENHANCEMENT:

Artificial Intelligence is used by one another after the company for its benefits. Also, it's fact that artificial intelligence is reached in our day-to-day life. Moreover, with a breakneck speed. On the basis of this information, arises a new question only when Artificial Intelligence is able to do a job better than humans. Machines are predicted to be better than humans in translating languages.

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