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INQUESTBOT – An Inquiry Chatbot

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Abstract:- The Chatbots uses the conversational Artificial Intelligence (A.I.) to create a Virtual Conversation between human and a computer in natural language. Chatbot also reduces human efforts to clear queries of users and chat with human by helping them to solve their queries. The People from different places approach the company for different requirements. With the help of website people can access required information from the website about the company. If a specific human has question that they wants to enquire, they need to reach company numerous numbers of times or they should call the company numerous times for gathering answers to the questions they had. Our INQUESTBOT helps their time and effort by saving. This INQUESTBOT, chatbot can be integrated on websites for inquiry and it also acts as companion. The INQUESTBOT asks many questions to get specific answers to the questions and the bot is Rule based chatbot that has predefined questions and expects the replies from its menu or options that generally uses buttons. INQUESTBOT intends to design with a streamline the process of problem solving.

Keywords:- *Bootstrap, Chatbot, CSS, JavaScript, PHP, Query.*

I. INTRODUCTION

A Chatbot is the computer program that chat with human in natural language, like human chat with each other. Chatbots replace humans and answers for user queries. The chatbot was initially built as attempt to fool humans. Artificial Intelligence Markup Language is used in many applications of chatbots to chat with user. The chatbots use Artificial Intelligence (A.I.) and Machine Learning (ML) to understand the query of user and respond appropriately to the user query.

This project solves the problem of visiting the company and collects required information about their requirements and queries and saves the time of user. The INQUESTBOT takes users input which is a request in the form of message and process that to give desired output like a message. The chatbot service can be accessed from anywhere at any time. As users face difficulty to explore the website for the required information from the website, the INQUESTBOT makes ease for user to explore through website and navigates through different pages of website. Users may lose interest on website and exits from website as they cannot find required information about the company, this INQUESTBOT has much impact in this case where user can access website with help of chatbot.

II. LITERATURE REVIEW

There are many applications of chatbots and they serve in various sectors our group have referred many projects on chatbot.[1] This paper outlines a high-level conceptual framework for realizing flexible chatbots founded upon agent-oriented abstractions: goals, plans, and commitments.[2] The proposed system, JARO addresses the common concerns that a candidate faces when it comes to attend the mass interviews. JARO accelerates the interview process by proposing a chatbot that would conduct interviews by analyzing the candidates CV, based on which, it then prepares a set of questions to be asked to the candidate. [3] With the rapid progress of the semantic web, a huge amount of structured data has become available on the web in the form of knowledge bases (KBs). Making these data accessible and useful for end-users is one of the main objectives of chatbots over linked data.[4] Disclosed is a novel system and process for presenting a customized chatbot. A chatbot is appeared on the users system just like a messaging window in which we will chat with our friends. In the same way we can ask our questions to the chatbot which appears just like the messaging window .[5]As chatbot also needs a interpreter to give appropriate answers to questions which are asked by users, so they used "program-o" .This is a AI-ML interpreter .With this interpreter exactly we can find the answers to the questions [6]Many scientists and programmers are finding a application that which mimics, answer to the user .By somehow using micro learning chatbots are found which represents to its basic components.

[7]the proposed ALICE chatbot is a chatterbox where it helps users by answering various queries related to universities and it also answers to the student queries.[8]Out of various implementations, RASA is open source implementation for NLU and DIET model. In this study, various features of rasa core are studied and up to much extent it can perform complex tasks.[9]This project deals

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with the interaction between users and UNIBOT which we can be used from any place. This UNIBOT can be easily attached with any institutions by using language conversions .[10]This paper mainly acts as a College Oriented Intelligence machine. This virtual machine will respond the question of students relating to their college issues. This college enquiry chatbot is built by the algorithm which analyses and understands the questions asked by user

III. PROPOSED SYSTEM

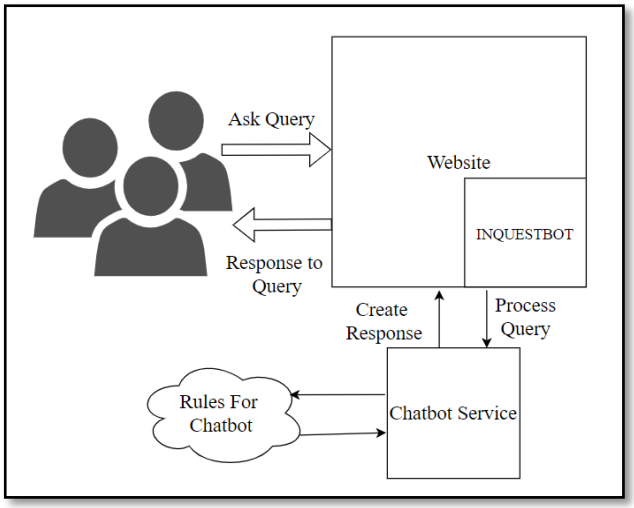

Fig.1Architecture Diagram of INQUESTBOT

The INQUESTBOT is a bot for web application which replies to the user query. In this user simply need ask their query through the chatbot which is designed for solving their queries. When client asks a specify question, the chatbot gives the appropriate. The User can ask any queries that are related to company, exercises through the framework. The users need not to visit the company for inquiry every time. The chatbot inspect the query and later it responds to the user. The designed chatbot respond to the query as it is replied by the individual. With the assistance of computerized reasoning, framework clarifies the query the which user asked. The framework answers utilizing a compelling Graphical UI which infers that as though a genuine individual is conversing with the user. The user can ask the queries about the services provided by company through online with the assistance of this chatbot. The INQUESTBOT will simply take the questions of the user and will gives the response according to the query.

- User Access The website to get the required information about the company.
- The INQUESTBOT makes it easier for user to explore through the website and search for required details.
- First bot asks for information about the user and assist about the query.
- This Reduces human efforts from working in place of bot and save the time from visiting the company for their simple queries.

IV. IMPLEMENTATION AND RESULTS

The INQUESTBOT aims to solve the user queries. Various Applications, Frameworks and technologies were used in developing the bot.

- The Front end of the Website is developed with Bootstrap, HTML, CSS, JavaScript and PHP. Various forms are also present in the website to contact the company and to get registered for different services provided by the company. This is a Company website which provides the details about the company totally. This is a interactive website which makes user experience effective during exploring the website.
- Bootstrap contains libraries of HTML, CSS and JavaScript to develop informative webpages. Main use of bootstrap is to add layout to webpages as customized by developer with different sizes, fonts, colors. For the HTML elements in webpages style definitions are provided by bootstrap. The output of using bootstrap is organized appearance for form, table and prose elements. Every element of bootstrap contains CSS declarations, HTMLstructure and JavaScript code in some cases. Bootstrap is ease to use framework for developers.
- The INQUESTBOT is a Rule based chatbot that works with rules set that are predefined. This follows the decision tree approach to design the flow of conversation. As the path is clear with the buttons and certain options in the flow of conversation runs smoothly and gives good experience to the users.
- The interface of INQUESTBOT is as follow and the bot introduces itself and builds the conversation friendly.

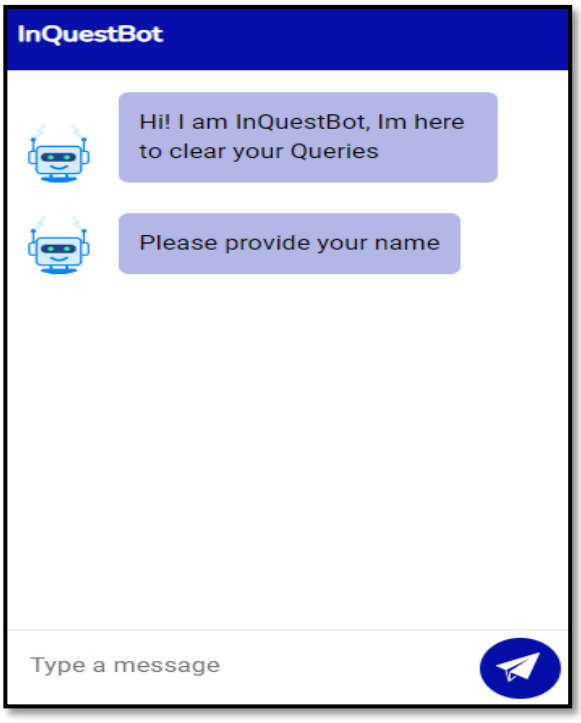

Fig. 2Interface of INQUESTBOT

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- Bot takes the details of the personal information of the user. It asks for their Name, Mail address, Mobile number. The Flow of conversation of bot with user about the information of user is show in following [Fig. 3.1, Fig. 3.2]. The bot asks the user about their name for first after greeting and introducing itself. Then bot thanks the user and asks for the mail address of the user, and then mobile number of the user in same way.

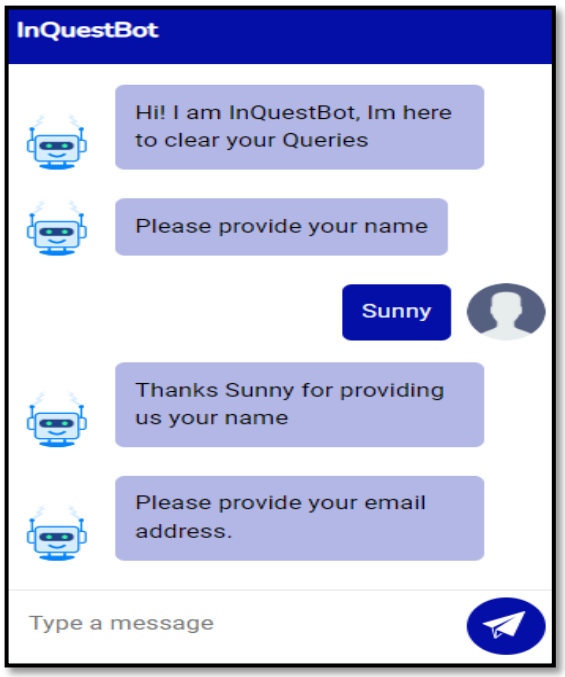

Fig. 3.1 Bot asking for Personal Information

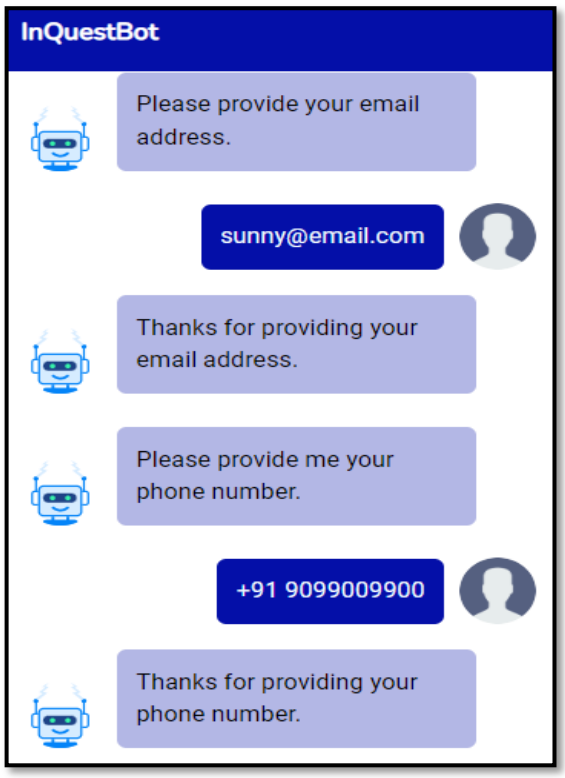

Fig. 3.2 Bot asking for Personal Information

- Bot takes the details of the personal information of the user. It asks for their Name, Mail address, Mobile number. The Flow of conversation of bot with user about the information of user is show in following [Fig. 3.1, Fig. 3.2]. The bot asks the user about their name for first after greeting and introducing itself. Then bot thanks the user and asks for the mail address of the user, and then mobile number of the user in same way.

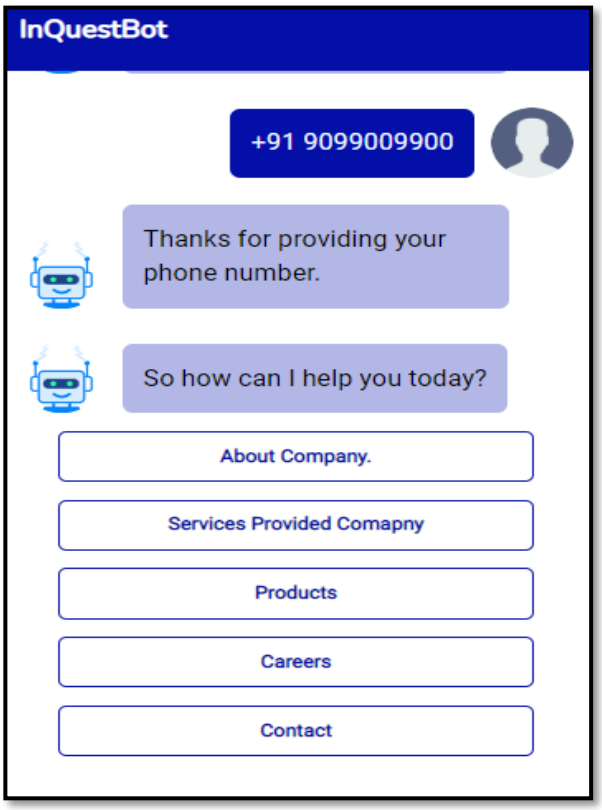

Fig. 4 Bot Assisting the user about inquiry

- After taking the details from user. Bot displays the menu of services provided by company, which generally queried by the users. The user can select from menu, these are in the form of buttons. When user selects option the sub menu related to that service will be displayed. Further user can select the option from submenu, if services is regarding query the answer will be displayed. If the query is related to any application the form of service will be opened. In above conversation user querying the bot about the careers provided by company with diploma qualification.

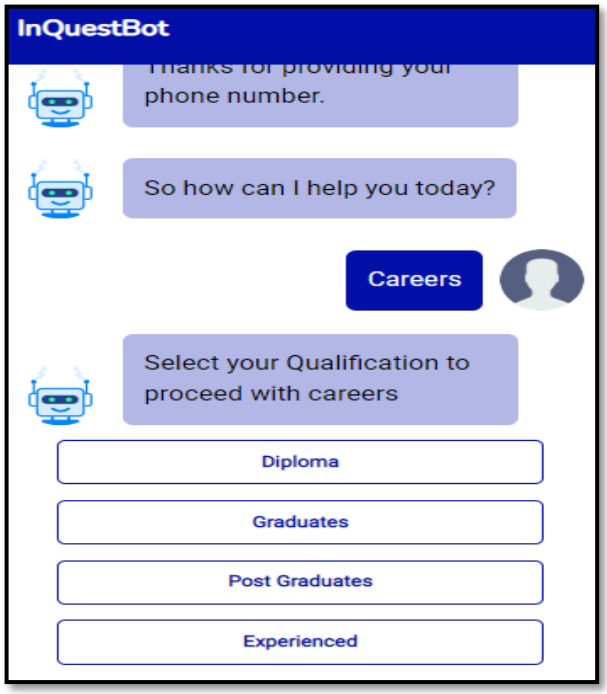

Fig. 5 Conversation flow of bot and user

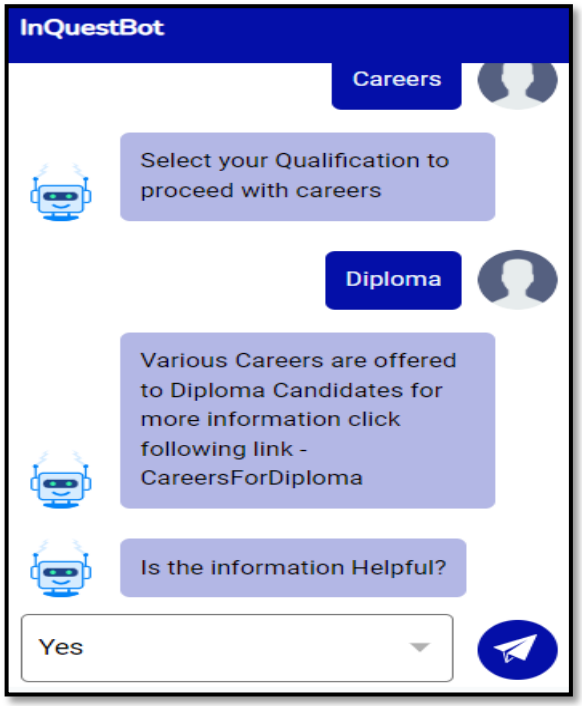

Fig. 6 Inquiry completion of user

- The pictures [Fig. 4, Fig. 5, Fig. 6, Fig.7] shows the conversation flow of bot with the user for an inquiry about careers with diploma qualification. Bot gives the hyperlink to careers website for diploma qualification. Then bot asks for the feedback about the information from the user. The conversation closes and bot thanks the user. If again user wants to clear a query they can click the button and initiate conversation again with the bot. In this way INQUESTBOT works and solves the queries of user.

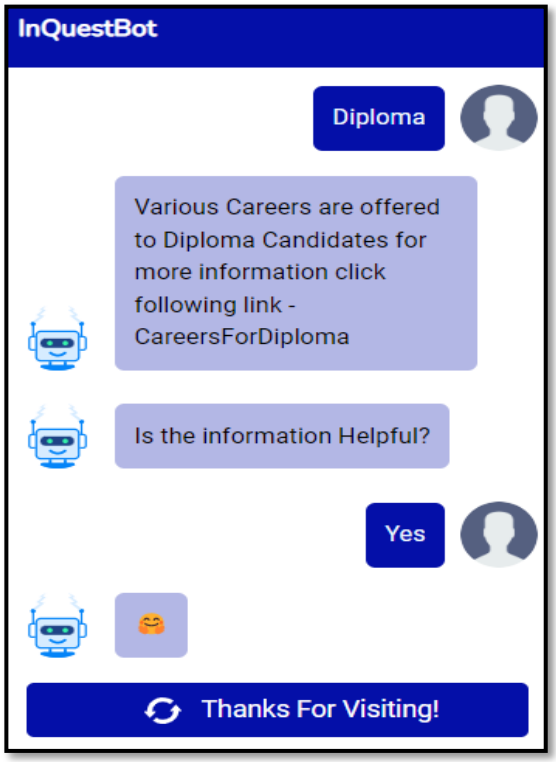

Fig. 7 Bot taking the user feedback

V. CONCLUSION AND FUTURE WORK

The INQUESTBOT is Rule based chatbot that works with decision tree algorithm and solves the predefined queries of the user. In future the INQUESTBOT can be developed using NLP and can solve the text queries of User.

Thanking our Guide Dr.Y.Sangeetha, Associate Professor, Department of IT, Velagapudi Rama Krishna Siddhartha Engineering College. For the support and guidance to complete the project.

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- *Data availability*

[1]. The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.
[2]. All data generated or analyzed during this study are included in this published article [and its supplementary information files].
[3]. The datasets generated during and/or analyzed during the current study are not publicly available due [REASON(S) WHY DATA ARE NOT PUBLIC] but are available from the corresponding author on reasonable request.].