Banking Inquiry Chat Bot

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Abstract

Everyone wants to get fast that they want. Chatbots are intelligent systems that understands user's questions and answers accordingly. Going to banks and ask questions to any bank employee, the procedure takes too much time to process a single question. So our focus is to make an intelligent assistant System that will save time of users and reduce workload of bank employees. It is like a personal assistant that user feels that they are communicating with a person. The user can ask their queries in plain text in English or in voice. According to user's query the system will process the query and generate response. To complete these tasks we have used artificial intelligence and natural language processing. The system will be available as a web so it can be easily accessible. It can be run on the pc or mobile phones.
Keywords: Natural Language Processing, Artificial Intelligence, Banking Bot, Chat Bot

I. INTRODUCTION

Banks plays an important role in everyone's life and country's economic development. Most of all people use banks in their daily life. Then they gets used to with bank procedures. But some people who are first timers need to struggle very much to know the procedures of banks. They needs to visit bank or customer care center or any other way they needs to gather information. For this there are less human resources. So much time gets wasted. Another way is to increase human resources but for that more money is needed or wasted. Another way is that bank have their websites but their websites may not be easy to use or understood by most of the people because of GUIs or much navigations.

By developing the chat bot these types of problems can be solved. The system can solve user's queries at any time and in a very short time. Customers do not need to go to any customer care center or bank for their queries hence user's and bank employee's valuable time can be saved and their workload can be reduced. We provide chat bot which will be easily available on the web and easy to use. The main advantage of this system is that users can ask questions in plain text or in voice. The system will understand questions and give correct answer.

The banking inquiry chat bot is developed using artificial algorithms and natural language processing algorithms. It will help those people who have doubts or queries about loan, policy, account they can ask questions in the system and system will generate answer according to users question. They can even refer to FAQS in which questions and answers are stored which are generally asked by the users.

II. PROPOSED SYSTEM

This system will be useful for customers for banking activities. This system will be on web so users can use it at any time. The chat bot is a computer program which is made to make conversation of a human with an intelligent machine for any bank related queries. The system will work as:
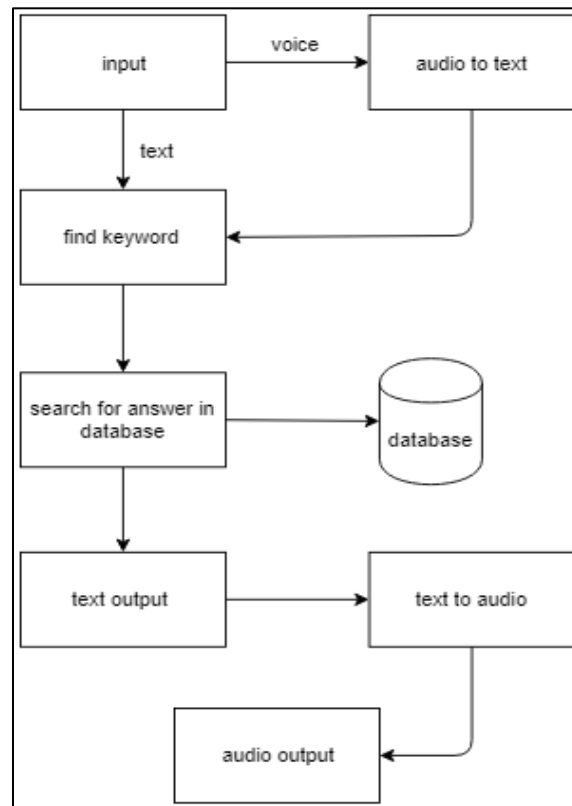
Fig. 1: Proposed System

A. *Feedback System*

This system is made to get answers of the questions of users. The dislike button is provided in case if users are not satisfied with the answer, they can press dislike button and give feedback. In some situations system is not able to give right answer. In this type of situations user can give feedback so that developers can improve system so that next time for the same question, user can get the right answer. To make system more accurate the feedback system is very helpful. Developers are notified that system is not ready to give some specific type of answers. This way system can be improved. The feedback system will work as:
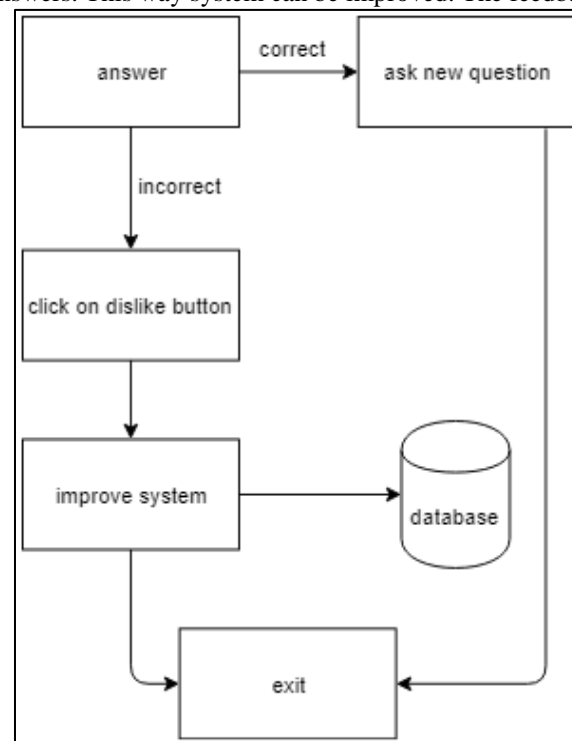

Fig. 2: Feedback System

B. Advantages

- The bot makes user feel that they are interacting with a human being.
- The bot answers very quickly.
- The system is easy to understand and handle.
- The intelligent system understands user's queries and answers quickly.
- Users need not to write questions they can speak question.
- Users need not to write the question in standard format.

III. METHODOLOGY

The Banking Inquiry Chat bot is a website which will work on all operating system and all devices like pc or mobile phones. The main aim of this system is to reduce workload of bank employees and save time of customers who have query about bank loan or accounts or policies etc.

The system will work as:

- First of all, plain text or voice will be given to the system as an input.
- Than input in the form of the voice will be converted to text.
- From users query special keywords are found.
- Based on keywords appropriate answer is generated.
- Display result as voice as well as in text.

A. Modules

1) Bot Chat

This is the main part of this project. Users can chat with the bot. Bot is an intelligent system that understands users questions and gives solutions. The bot takes voice or text as an input. And processes the questions and gives reply.

2) Text to Speech

Listening is more comfortable than reading. The proposed system can speak out the answers. User need not to read all the contents.

3) Effective GUI

In this system we have designed the bot such that user do not get confused. While interacting with bot users feel that they are talking with a real person.

IV. CONCLUSION

It is difficult to get the information on a single interface without complications of going to multiple windows and multiple banks. The banking inquiry chat bot aims to remove this difficulty by providing a common end user-friendly interface to solve queries of customers as well as bank employee.

The purpose of a chat bot system is to simulate a human conversation. Using artificial algorithms and natural language processing it is made possible to make online communication between human and a computer.

Customers and employees can freely upload their queries. The system will take text as well as voice as an input. The chat bot provides answers very quickly. The System will have effective GUI so that users can easily understand the system

REFERENCES

[1]   Data Mining: Concepts and Techniques Jiawei Han and Micheline Kamber
[2]   https://chatbotslife.com/ultimate-guide-toleveraging-nlp-machine-learning-for-you-chatbot531ff2dd870c.5mcveo57b
[3]   Automatic Extraction of Chatbot Training Data from Natural Dialogue Corpora, Bayan Abu Shawar, Eric Atwell
[4]   https://www.codeproject.com/Articles/36106/Chatbot-Tutorial
[5]   https://chatbotslife.com/how-neural-networks-work-ff4c7ad371f7
[6]   https://software.intel.com/en-us/videos/webinar-deep-learning-101
[7]   https://thefinancialbrand.com/71251/chatbots-banking-trends-ai-cx/
[8]   https://www.dropbox.com/sh/o5uvt3h9kfm5b60/AADRLhj6yPHaLrk7JIhLbgwKa
[9]   https://medium.com/deep-math-machine-learning-ai/chapter-11-chatbots-to-question-answer-systems-e06c648ac22a