FALCON (Personal Assistant)

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Abstract: A personal assistant or virtual assistant could be a software agent that may perform operations or tasks on personal commands or queries. Basically the purpose of this project is to build an easy independent application that helps less people with less knowledge about technology within the world to use the technical devices without feeling ignorant or computer illiterate .In the present era computers are the most important devices and are more cost-effective. This application works similar to Siri/ Google Assistant but the application deals with the pc mainly.

I. INTRODUCTION

An assistant with visible intelligence is a software agent that can perform operations or services on giving instructions or asking queries. The word "chatbot" is used to refer to personal assistants which can answer to your queries and seems like human is communicating like we have google assistant. For example in some medical related app we can communicate to virtual doctors. They are able to interpret human speech and respond to cohesive words. Users can ask questions, manage media voice playback, and manage other tasks such as sending emails to single as well as multiple recipients with verbal instructions.

Basically the purpose of this project is to build an easy independent application that helps less people with less knowledge about technology within the world to use the technical devices without feeling ignorant or computer illiterate .In the present era computers are the most important devices and are more cost-effective. This application works similar to Siri/ Google Assistant but the application deals with the pc mainly. The interface of the application is self-explanatory.

So basically this application is used to convert our voice commands into useful results and to perform useful task using our voice commands

II. METHODOLOGY

This project consisted of various modules which are mentioned below-:

A. Pyttsx3

Pyttsx3 is a python library which converts text into speech. This library works offline, and is compatible with both Python 2 and 3.Basically it takes input as text and supply output as voice. The voices used may be of various types i.e. inbuilt voice or we will customize them by downloading various voices over internet. Pyttsx3 is also a platform independent python library.

B. Datetime

This python module provides various classes for dealing with date and time in simple and sophisticated ways. With the help of this module we can deal with date and time of any zone. Datetime module supplies classes to figure with date and time. These classes provide various functions to pander to date, time and time intervals. This python module is a built-in feature of Python, so there is no need to install it externally.

C. Speech Recognition

Speech recognition is a python library used for converting spoken words into text. This python library needs to be installed separately. Speech Recognition helps the system to interpret the human commands and convert them into text.This library provides various engines and API's like Google Speech Engine etc.It can be useful as it can be used on microcontrollers like Raspberry Pi with the assistance of an externalmicrophone.

D. Wikipedia

This python library is used to search the content over Wikipedia which user wants. This library makes it easy for the user to browse Wikipedia for any query. Wikipedia is not a built-in library in python so we need to install it separately.
Example

1) *Input:* What is the capital of India?
2) *Output:* New Delhi is an urban district located in the city of Delhi. New Delhi serves as the capital of India and the seat of all three branches of the Government of India. The foundation stone of New Delhi was laid by Emperor George V during the Delhi Durbar of 1911.

E. Webbrowser

Webbrowser is a python library used to open certain sites on browser which user wants like youtube, goole, etc. In Python, webbrowser module provides various methods like open() to navigate through various sites over internet. This module is used to open a browser in a platform-independent way. With the help of this module the requested page opens in the default browser of the system

This module opens the requested page in new browser window or in a new tab of the same browser but if you want to open the requested page in a specific browser then use get() method of this module and mention the particular browser.

F. OS

This python module provides various functions for dealing with the operations to be performed on operating system like playing songs stored in your systems directory etc. This module is the part of standard library within python3 i.e. you need not to install it separately but you need to import it. This module provides various functions to perform various operations on files/folders.

G. Time

Python has a module called "time" that provides various functions to help in time, conversions and time representations, which are useful in various real life application. This module is used to handle operations related to time. We have to import this module in our python script to make use of methods provided by it.

H. Smtplib

Smtplib is a python library which is based on Simple Mail Transfer Protocol
(SMTP).Smtplib is a built in module in python so we do not need to install it separately.SMTP is a protocol or guideline for transmission of electronic mails from one server to another server over interner. Python provides this module, which provides various functionalities which are used to transfer mail to any machine. An. It has a method named as sendmail () which is used to send emails.

III. FUNCTIONS

This standalone application can perform various functions by giving voice commands by the users and provide output as text on screen as well as by speaking up the result.This application is similar to google assistant/siri.
It can perform various operations as mentioned below :-
1) Can search content over internet.
2) Can open sites over internet.
3) Able to send email to multiple recipients.
4) Can open apps on your system.
5) Able to tell weather forecast.
6) Has the ability to answer any general question.
7) Play music of your choice from your music directory.
8) Can tell you time according to the zone.

IV. FLOWCHART

This is a standalone application that responds to user queries by voice as well as by providing text as output. The system starts by wishing you and then asks you for your query if any. Then the user respond by giving the command by his/her voice which the system takes as input. After that system try to identify the command given by user, if the application not able to identify what user wants to ask then control returns back to start position and if system identified the query then it responds to that query accordingly and provide the result of the query by voice as well as by providing text for some queries. After every query system asks the user for another query and if user wants to quit the application then application stops by saying thank you.
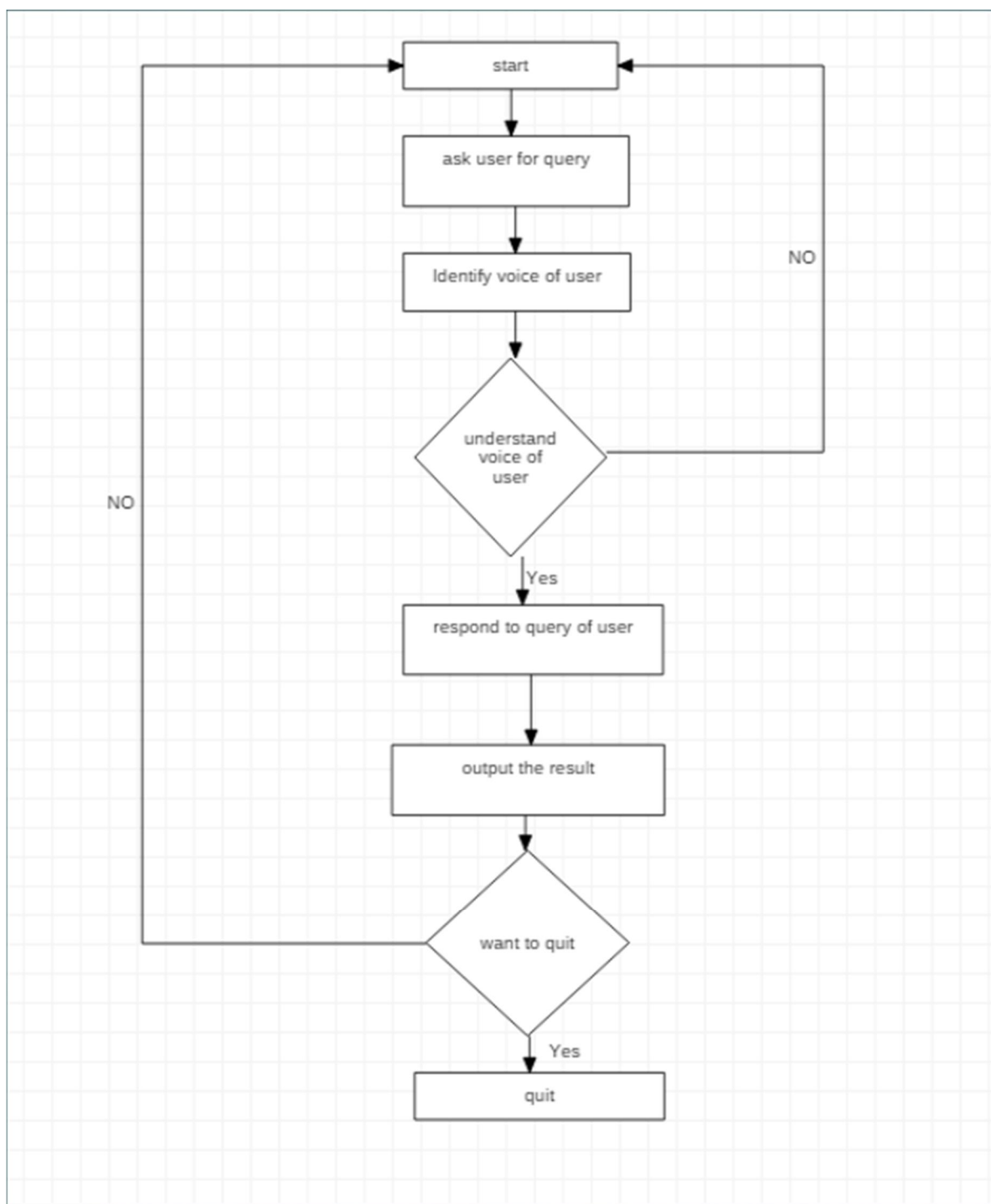
Figure 1

V. CONCLUSION

In this project we gave input in the form of voice command and system recognize the input and by using different libraries of python it provide the result in the form of voice as well as text. Thus this research paper helps the user to search for the result using voice commands. Hence the purpose of this project is to provide output on the basis of theinput given as voice commands.
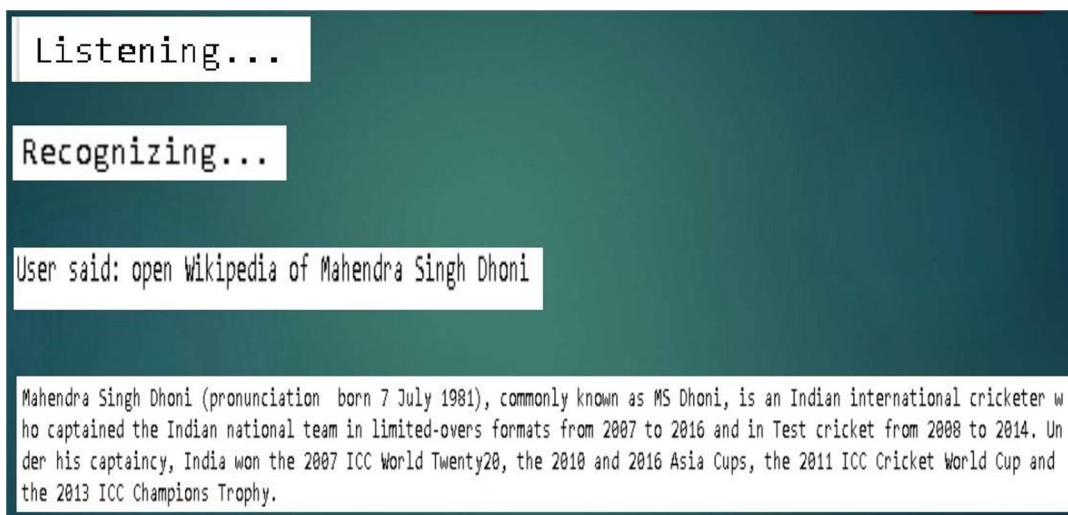
VI. SNAPSHOTS

Figure 2

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