

PERSONAL DIGITAL ASSISTANCE

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Abstract— A personal digital assistant is in fact a package agent UN agency can perform jobs or services for Private. Typically the term "chatbot" is in fact utilized to refer virtual assistants usually or specifically to on line chat. As of 2017, the capabilities and usage of virtual assistants is really increasing fast, with new merchandise returning into the market. An online survey in may 2017 found that the foremost unremarkably used Apple inside the us of America were Apple's Siri (34 %), Google's Assistant (19%), Amazon's Alexa (6%), and Microsoft's Cortana (4 %). Apple and Google have place which is actually huge in bases of users on smartphones. Microsoft options an enormous place in base of Windows based personal computers, smartphones, and smart speakers. Alexa options a huge install base for smart speakers.

Index Terms- GTTS,PDA,SMTP.

I. INTRODUCTION

AI analysis in engineering is really outlined because the study of "intelligent agents": any device that values its surroundings and performs tasks that maximize its probabilities of with success achieving its goals. In informal terms, the term "artificial intelligence" is actually applied when a machine performs the "cognitive" perform that humans accompany alternative human minds, like "learning" and "problem solving". A personal digital assistant is in fact a package agent UN agency can perform jobs or services for a private typically the term "chatbot" is in fact utilized to refer virtual assistants usually or specifically to on line chats (or perhaps maybe in an assortment of cases on line chat programs that are really for diversion and never for useful purposes) is actually. As of 2017, the capabilities and usage of virtual assistants is really increasing fast, with new merchandise returning into the market. an online survey in may 2017 found that the foremost unremarkably used Apple inside the us of America were Apple's Siri (34 %), Google's Assistant (19%), Amazon's Alexa (6%), and Microsoft's Cortana (4 %). Apple and Google have place which is actually huge in bases of users on smartphones. Microsoft options an enormous place in base of Windows based personal computers, smartphones, and smart speakers. Siri uses voice queries and a natural language user interface to answer questions, and perform actions by delegating requests to a set of Internet services. The software adapts to users' individual language usages, searches, and preferences, with continuing use. Returned results are individualized. Third-party access to Siri, was opened up by Apple with the release of IOS – 10 in 2016, including third-party messaging applications, payments, ride-sharing, and Internet calling apps. A. Technology used in SIRI. Siri uses Machine

schedule and address book storage and note entry and retrieval. Nevertheless, a range of applications have been created for PDAs. Most likely the most famous application of iPhone is actually "SIRI" that helps perfect user to speak to the end user mobile with voice along with it conjointly responds to the voice commands of the user. exactly the same application has conjointly been developed that could be a "personal digital assistant" which is actually employed in "WINDOWS". however this application works largely with web Connections. it's selected as an individual assistant with voice recognition intelligence, which takes the user's input as voice or text and processes it along with returns the output in many forms like what ought to be performed or perhaps searched. The result's determined by the top user. what is often, this planned system will amendment the approach interaction between the very best user and mobile devices.

II. PRODUCT DEFINITION

1. Browser:

PDA acts as a Browser which used to search wikipedia and to get certain required .

2. Voice Input: PDA acts a Voice Input which has ability of listening and recognition by using Voice Input .

3. Play Music:PDA acts as a music player where we can listen any songs that's on your device and any number of songs

4. Youtube:PDA acts as a source to open Youtube where we can watch the videos whatever you like by just saying to open youtube.

5. Weather Report:PDA acts as a weather report to show about the climatic changes and humidity report of different cities and places.

6. Reminder: PDA acts as a Reminder which reminds after a given Time of different places as per GMT(greenwich mean time).

III. LITERATURE SURVEY

<https://ijcsmc.com/docs/papers/July2017/V6I7201706.pdf>

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Learning technologies to function. Using ASR (Automatic speech recognition) to transcribe human speech (in this case, short utterances of commands, questions, or dictations) into text. Users speak natural language as voice commands in order to operate the mobile devices (iPhone 4S and later and newer iPad and iPod Touch devices) and its applications. The idea is to provide high level modelling primitives as integral part of a data model in order to facilitate the representation of real world situations.

<https://www.irjet.net/archives/V7/i9/IRJET-V7I9678.pdf>

A Review on Voice Assistance using Python

Artificial Intelligent has been in great use when it comes to day to day life. Computer science defines AI research as the study of brilliant agents. Every In almost any direction one turns today, some form of computer-based information processing technology intrudes, whether to the individual knowingly or not. Artificial Intelligence (AI) has already change our lifestyle. AI device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals. Input to recommendation algorithm can be a database of user and items and output recklessly will be the recommendations. The user is the input into system by voice or text. This paper presents a new approach for smart search. Overall in world there are many people who use assistant. The paper presents applications of virtual assistant that helps in providing chance for humanity in various domains. This paper also describes provocation of applying virtual assistant technology.

IV. PROPOSED SYSTEM

Develop Programming for the entire project is done using python modules and packages . Following libraries were used in this project as detailed below in the procedural hierarchy:

- 1.pyttsx3 it helps to convert text to speech format
2. speech Recognition it helps for recognizing speech input commands
- 3.Wikipedia it helps to extract information from the website and wiki based on the command input we given in voice input
- 4.Importing all the libraries to the working environment and used to work for the assitant
- 5.Datetime used to access the current time and date with perfect accurate results
- 6.web browser for accessing the default system web browser it help to search for the wiki
- 7.operating system used to retrieve all the background data from the system
- 8.weather it helps to get accurate weather report of any city by using voice input

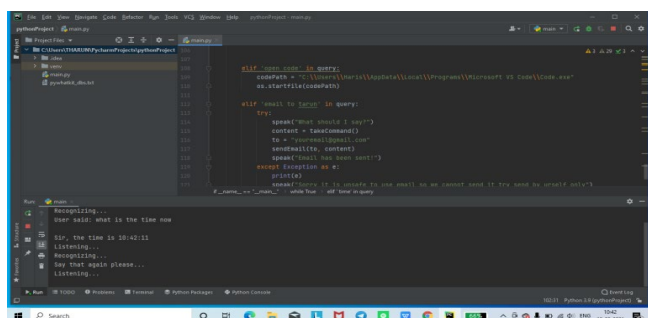


Fig 1.Time and date

Fig 1. Once the voice assistant starts processing when the program is run, it wishes the user based on time and asks the user for command input. The user then responds to the device with a proposed question, which will then be processed by the device in a fraction of time. Once the search is done, the voice Assistant displays the desired output as requested by the user. If the results are not predictable by the Assistant it displays a sorry command. So, this way proposed Voice Assistant Genie is coded. Many input commands such as browsing for some data, search of the time or date or time

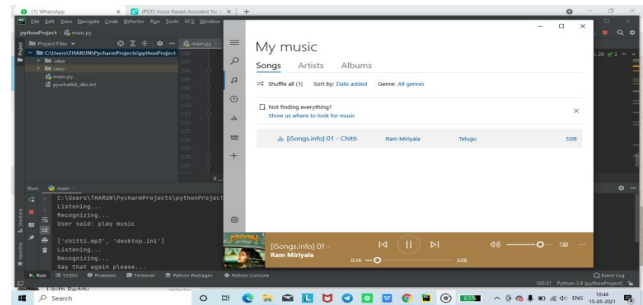


Fig 2.Play music

V. METHODOLOGY

Libraries Python library may be an assortment of functions in addition to ways that allows you to do a variety of actions without writing your code. as an example, the Python imaging library (PIL). is in fact one among the essential libraries for image manipulation in Python. Pillow is actually associate actively developed fork of PIL. Open CV Python may be a library of Python (also binds to C, C# etc.) aimed toward time period laptop vision and image process. Each library in Python has an enormous range of helpful modules that you're going to import for your on a frequent basis programming.

1.OS

This module provides an exchangeable approach of victimization practicality passionate about the OS. in case you really have got to check and perhaps develop a file, in case you are going to love to govern ways, find out the os. path module, of course, in case you would love to browse all of the rows all told files on the program line. See the Temporary File module to form temporary files and directories, and certainly the Shuttle module for high level file and directory handling. Notes on the delivery of those functions :? The look of all of Python's original OS dependent modules is actually such it uses a similar interface as long because similar practicality is actually available; for instance, the operate OS. State (path) provides standing info concerning the trail within format and that is actually similar (which is still produced with the POSIX user interface).? Strange extensions for a selected OS also are offered through OS modules, however their use is in fact with no doubt a threat to moveableness.? associate "OS" note implies that this operate might be found on WINDOWS system systems. It doesn't build some claims regarding the presence of its on some OS.? If un noted severally, all functions claiming

"Windows" are actually supported on Macintosh OS X, that builds on an OS core. 15

2.Smtplib

The Smtplib module defines AI SMTP shopper session which object that may be utilized to match restate machines with AI SMTP or ESMTP beholder demos. For details on SMTP support ESMTP operation, consult RFC 821 (Simple Mail Transfer Protocol) Support RFC 1869 (SMTP Service Manager).

3.GTTS

Google Text to Speech could be the point that the Python interface of Google's Text to Speech API. produce secondary MP file with the GTTS module or perhaps the gTTS cli statement utility. this enables unlimited length of text spoken by the pronunciation of long sentences wherever speech can naturally pause.

4.Speech Recognition

Google offers a fantastic speech recognition API. This iAPI changes the spoken text (microphone) into in print language (Python strings), if the text a fast speech. you'll just speak during an electro acoustic transducer and therefore the Google API can translate it into written language. The API has results that are actually terrific for English language.

5.Weathercom

Weathercom package is used to get weather reports for any location from weather.com. API for weather.com, Use the package manager pip to install weathercom.

6.Wikipedia

Wikipedia might be a Python library that creates it incredibly easy to admission and break down knowledge from Wikipedia

7.Web Browser

The Webbrowser module includes functions for gap URLs in interactive web browser applications. The module has a register of accessible browsers, if some choices are in fact provided 17 on the item. It also may be managed with the Browser surroundings variable.

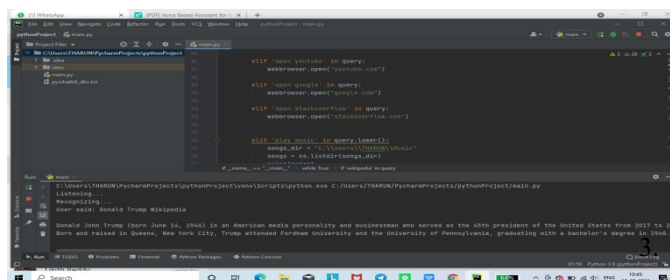


Fig 3. Wikipedia searching

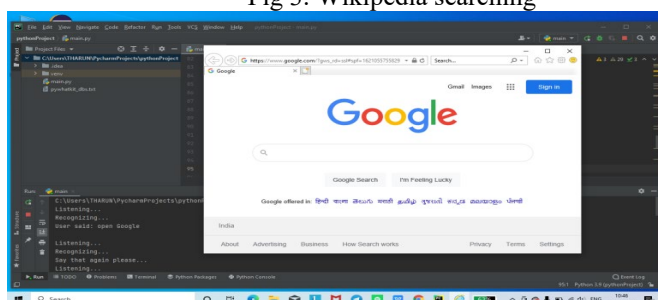


Fig 4. Open google

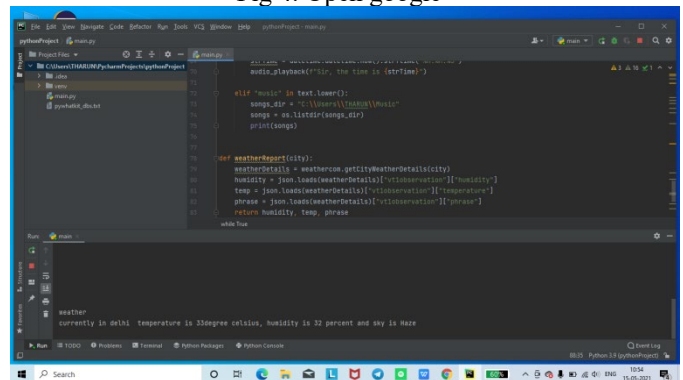


Fig 5. Weather report

VI. CONCLUSION

Computers are the guides to the Information Age. Over the years, they have assumed the role as administrators of data. People depend these appliances to dispense the information that runs their lives. They need it right away, right here, right now. Constant access to computers equals constant access to knowledge. As a result, these devices to go wherever people go. PDAs are the solution to this vision of ubiquitous computing. These devices represent a new step in computer technology. On paper, their specifications are impressive. They are often equipped with RISC microprocessors and sophisticated touchscreens. PDAs arm themselves with software for personal information management, spreadsheets, databases, and more. These devices also possess various expandability and communications options. And, they are small enough to fit in an human hand. However, they still need to mature, evolve, and solve basic problems of function, hardware, input, and connectivity. Strikingly new technology has usually required a gradual and tumultuous growth curve before being accepted by the general public. PDAs are no different. But, eventually, they will fulfill their original purpose of being "all-knowing" and "all-doing" devices.

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