VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI – 590018, Karnataka

INTERNSHIP REPORT

ON

"VIRTUAL ASSINTANT FOR VISUALLY IMPAIRED"

"

Submitted in partial fulfilment for the award of degree(21IS040)

BACHELOR OF ENGINEERING IN
YOUR BRANCH

Submitted by:

NAME EBENEZER.K
USN 1CD21IS040

Conducted at
COMPANY NAME

Cambridge institute of technology

Department of Information science & engineering

(Approved by AICTE, A+ Accreditation by NAAC New Delhi & Affiliated by VTU,)

Karnataka

Cambridge institute of technology
Department of Information science & engineering
(Approved by AICTE, A+ Accreditation by NAAC New Delhi & Affiliated by VTU,) Karnataka

CERTIFICATE

This is to certify that the Internship titled **"Virtual Assistant For Visually Impaired""** carried out by **Mr. EBENEZER.K,** a Bonafede student of Cambridge institute of technology, in partial fulfillment for the award of **Bachelor of Engineering**, in **INFORMATION SCIENCE OF ENGINEERING** under Visvesvaraya Technological University,Belagavi, during the year 2022-2023. It is certified that all corrections/suggestions indicated have been incorporated in the report.

The project report has been approved as it satisfies the academic requirements in respect of Internship prescribed for the course Internship / Professional Practice (21CSI85)

Signature of Guide **Signature of HOD** **Signature of Principal**

External Viva:

Name of the Examiner Signature with Date

1)_____

_____

D E C L A R A T I O N

I, **EBENEZER.K**, first/final year student of Branch, College Name - 560 082, declare that the Internship has been successfully completed, in **COMPANY NAME**. This report is submitted in partial fulfillment of the requirements for award of Bachelor Degree in Branch name, during the academic year 2022-2023.

Date : 30/11/2022 :

Place : Bengaluru

USN : :**1CD21IS040**

NAME : **EBENEZER.K**

OFFER LETTER

Date: **24th October, 2022**

Name: **EBENEZER.K**
USN: **1CD21IS040**

Dear Student,

We would like to congratulate you on being selected for the Machine Learning With Python (Research Based) Internship position with Comp soft Technologies, effective Start Date 24th October, 2022, All of us are excited about this opportunity provided to you! This internship is viewed as being an educational opportunity for you, rather than a parttime job. As such, your internship will include training/orientation and focus primarily on learning and developing new skills and gaining a deeper understanding of concepts of Machine Learning with Python (Research Based) through hands-on application of the knowledge you learn while you train with the senior developers. You will be bound to follow the rules and regulations of the company during your internship duration.

Again, congratulations and we look forward to working with

you.Sincerely,

Nitin K. S
Project Manager COMP
SOFT TECHNOLOGIES *No.*
363, 19th main road, 1st
Block Rajajinagar
Bangalore - 560010

A C K N O W L E D G E M E N T **Cambridge institute of technology**
Department of Information science & engineering
(Approved by AICTE, A+ Accreditation by NAAC New Delhi & Affiliated by VTU,)
Karnataka

This Internship is a result of accumulated guidance, direction and support of several important persons. We take this opportunity to express our gratitude to all who have helped us to complete the Internship.

We express our sincere thanks to our Principal, for providing usadequate facilities to undertake this Internship.

We would like to thank our Head of Dept – branch code, for providing us an opportunity to carry out Internship and for his valuable guidance and support.

We would like to thank our (Lab assistant name) Software Services for guiding us during the period of internship.

We express our deep and profound gratitude to our guide, Guide name, Assistant/Associate Prof, for her keen interest and encouragement at every step in completing the Internship.

We would like to thank all the faculty members of our department for the support extended during the course of Internship.

We would like to thank the non-teaching members of our dept, forhelping us during the Internship.

Last but not the least, we would like to thank our parents and friends without whose constant help, the completion of Internship would have not been possible.

NAME:
EBENEZER.K
USN :
1CD21IS040

ABSTRACT

In today's advanced hi-tech environment, the need for self-sufficiency is recognized in the situation of visually impaired people who are socially restricted. They are in an unfamiliar environment and are unable to help themselves. Because most tasks require visual information, visually impaired people are at a disadvantage because crucial information about their surroundings is unavailable. It is now possible to extend the support provided to people with visual impairments thanks to recent advancements in inclusive technology. This project proposes to use Artificial Intelligence, Machine Learning, Image and Text Recognition to assist persons who are blind or visually impaired. The concept is realised using an Android mobile app that includes features such as voice assistant, image recognition, currency recognition, e-book, and chat bot. The software can recognize items in the environment using voice commands and do text analysis to recognize text in a hard copy document. It will be an effective approach for blind individuals to engage with the world and make use of technology's features.

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CHAPTER 1

COMPANY PROFILE

1. COMPANY PROFILE

A Brief History of Compsoft Technologies

Compsoft Technologies, was incorporated with a goal ”To provide high quality and optimal Technological Solutions to business requirements of our clients”. Every business is a different and has a unique business model and so are the technological requirements. They understand this and hence the solutions provided to these requirements are different as well. They focus on clients requirements and provide them with tailor made technological solutions. They also understand that Reach of their Product to its targeted market or the automation of the existing process into e-client and simple process are the key features that our clients desire from Technological Solution they are looking for and these are the features that we focus on while designing the solutions for their clients.

Sarvamoola Software Services. is a Technology Organization providing solutions for all web design and development, MYSQL, PYTHON Programming, HTML, CSS, ASP.NET and LINQ. Meeting the ever increasing automation requirements, Sarvamoola Software Services. specialize in ERP, Connectivity, SEO Services, Conference Management, effective web promotion and tailor-made software products, designing solutions best suiting clients requirements.

Compsoft Technologies, strive to be the front runner in creativity and innovation in software development through their well-researched expertise and establish it as an out of the box software development company in Bangalore, India. As a software development company, they translate this software development expertise into value for their customers through their professional solutions.

They understand that the best desired output can be achieved only by understanding the clients demand better. Compsoft Technologies work with their clients and help them todefiine their exact solution requirement. Sometimes even they wonder that they have completely redefined their solution or new application requirement during the brainstormingsession, and here they position themselves as an IT solutions consulting group comprising of high caliber consultants.

They believe that Technology when used properly can help any business to scale and achieve new heights of success. It helps Improve its efficiency, profitability, reliability; to put itin one sentence ” Technology helps you to Delight your Customers” and that is what we wantto achieve.

CHAPTER 2

ABOUT THE COMPANY

2. ABOUT THE COMPANY

Compsoft Technologies is a Technology Organization providing solutions for all web design and development, MYSQL, PYTHON Programming, HTML, CSS, ASP.NET and LINQ. Meeting the ever increasing automation requirements, Compsoft Technologies specialize in ERP, Connectivity, SEO Services, Conference Management, effective webpromotion and tailor-made software products, designing solutions best suiting clients requirements. The organization where they have a right mix of professionals as a stakeholders to help us serve our clients with best of our capability and with at par industry standards.They have young, enthusiastic, passionate and creative Professionals to develop technologicalinnovations in the field of Mobile technologies, Web applications as well as Business and Enterprise solution. Motto of our organization is to "Collaborate with our clients to provide them with best Technological solution hence creating Good Present and Better Future for our client which will bring a cascading a positive effect in their business shape as well". Providing a Complete suite of technical solutions is not just our tag line, it is Our Vision for Our Clients and for Us, We strive hard to achieve it.

Products of Compsoft Technologies.

Android Apps

It is the process by which new applications are created for devices running the Android operating system. Applications are usually developed in Java (and/or Kotlin; or other such option) programming language using the Android software development kit (SDK), but other development environments are also available, some such as Kotlin support the exact same Android APIs (and bytecode), while others such as Go have restricted API access.

The Android software development kit includes a comprehensive set of development tools. These include a debugger, libraries, a handset emulator based on QEMU, documentation, sample code, and zutorials. Currently supported development platforms include computers running Linux (any modern desktop Linux distribution), Mac OS X 10.5.8 or later, and Windows 7 or later. As of March 2015, the SDK is not available on Android itself, but softwaredevelopment is possible by using specialized Android applications.

Web Application

It is a client–server computer program in which the client (including the user interface and client- side logic) runs in a web browser. Common web applications include web mail, online

retail sales, online auctions, wikis, instant messaging services and many other functions. web applications use web documents written in a standard format such as HTML and JavaScript,which are supported by a variety of web browsers. Web applications can be considered as a specifific variant of client–server software where the client software is downloaded to the client machine when visiting the relevant web page, using standard procedures such as HTTP. The Client web software updates may happen each time the web page is visited. During the session, the web browser interprets and displays the pages, and acts as the universal client for any web application. The use of web application frameworks can often reduce the number of errors in a program, both by making the code simpler, and by allowing one team to concentrate on the framework while another focuses on a specifified use case. In applications which are exposed to constant hacking attempts on the Internet, security-related problems can be caused by errors in the program.

Frameworks can also promote the use of best practices such as GET after POST. There are some who view a web application as a two-tier architecture. This can be a “smart” client that performs all the work and queries a “dumb” server, or a “dumb” client that relies on a “smart” server. The client would handle the presentation tier, the server would have the database (storage tier), and the business logic (application tier) would be on one of them or on both. While this increases the scalability of the applications and separates the display and the database, it still doesn‟t allow for true specialization of layers, so most applications will outgrow this model. An emerging strategy for application software companies is to provide web access to software previously distributed as local applications. Depending on the type of application, it may require the development of an entirely different browser-based interface, or merely adapting an existing application to use different presentation technology. These programs allow the user to pay a monthly or yearly fee for use of a software application without having to install it on a local hard drive. A company which follows this strategy is known as an application service provider (ASP), and ASPs are currently receiving much attention in the software industry.

Security breaches on these kinds of applications are a major concern because it can involve both enterprise information and private customer data. Protecting these assets is an important part of any web application and there are some key operational areas that must be included in the development process. This includes processes for authentication, authorization, asset handling, input, and logging and auditing. Building security into the applications from the beginning can be more effective and less disruptive in the long run.

Web design

It is encompasses many different skills and disciplines in the production and maintenance of websites. The different areas of web design include web graphic design; interface design; authoring, including standardized code and proprietary software; user experience design; and

search engine optimization. The term web design is normally used to describe the design process relating to the front-end (client side) design of a website including writing mark up. Web design partially overlaps web engineering in the broader scope of web development. Web designers are expected to have an awareness of usability and if their role involves creating mark up then they are also expected to be up to date with web accessibility guidelines. Web design partially overlaps web engineering in the broader scope of web development.

Departments and services offered

Compsoft Technologies plays an essential role as an institute, the level of education, development of student's skills are based on their trainers. If you do not have a good mentor then you may lag in many things from others and that is why we at Compsoft Technologies gives you the facility of skilled employees so that you do not feel unsecured aboutthe academics. Personality development and academic status are some of those things which lie on mentor's hands. If you are trained well then you can do well in your future and knowing its importance of Compsoft Technologies always tries to give you the best.

They have a great team of skilled mentors who are always ready to direct their trainees in the best possible way they can and to ensure the skills of mentors we held many skill development programs as well so that each and every mentor can develop their own skills with the demands of the companies so that they can prepare a complete packaged trainee.

Services provided by Compsoft Technologies.

• Core Java and Advanced Java

• Web services and development

• Dot Net Framework

• Python

• Selenium Testing

• Conference / Event Management Service

• Academic Project Guidance

• On The Job Training

• Software Training

CHAPTER 3

INTRODUCTION

3. INTRODUCTION

Introduction to ML

with administrative support. Typical task of virtual assistant might perform the operation such as greeting user, opening different applications, performing multimedia operations and many more.

Basically, we are making this system for the help of blind people, blind people who are working or using computer for some purpose, this project is to make them work easy **A virtual assistant is a self-employed individual who specializes in providing clients**

Machine learning (ML) is a branch of artificial intelligence (AI) that enables computers to" self-learn" from training data and improve over time, without being explicitly programmed.
Machine learning algorithms are able to detect patterns in data and learn from them, in order to make their own predictions.

Problem Statement

Virtual assistant has become very useful over the past few years. Some of the famous virtual assistants are Alexa, Siri, Google assistant, Bixby etc.
However, these are the advanced level of virtual assistants and not everyone can afford the assistant devices like Alexa or iPhone for Siri
Sire and reduce their problem

CHAPTER 4

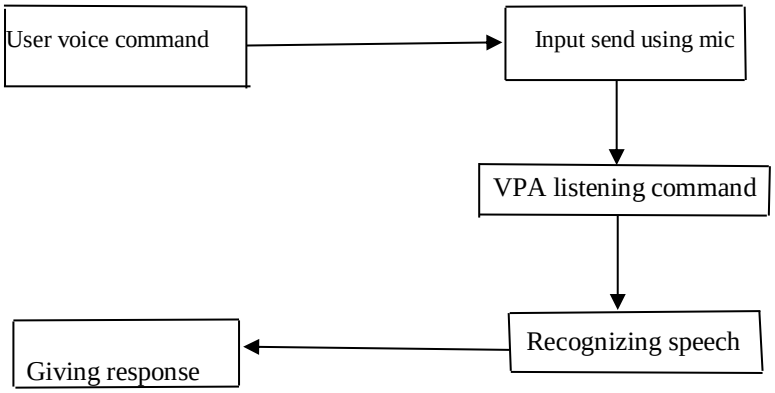
SYSTEM ANALYSIS

4. SYSTEM ANALYSIS

1. Existing System

System Analysis is about complete understanding of existing systems and finding where the existing system fails. The solution is determined to resolve issues in the proposed system. It defines the system. The system is divided into smaller parts. Their functions and inter relation of these modules are studied in system analysis. The complete analysis is followed below.

2. Proposed System



3. Objective of the System

Main objective of building personal assistant software (a virtual assistant) is using semantic data sources available on the web, user generated content and providing knowledge from knowledge databases. The main purpose of an intelligent virtual assistant is to answer questions that users may have. This may be done in a business environment, for example, on the business website, with a chat interface. On the mobile platform, the intelligent virtual assistant is available as a call-button operated service where a voice asks the user “What can I do for you?” and then responds to verbal input.

CHAPTER 5

REQUIREMENT ANALYSIS

5. REQUIREMENT ANALYSIS

Hardware Requirement Specification

PERSONAL COMPUTERS (PCs)

Software Requirement Specification

a. PyCharm Community Edition

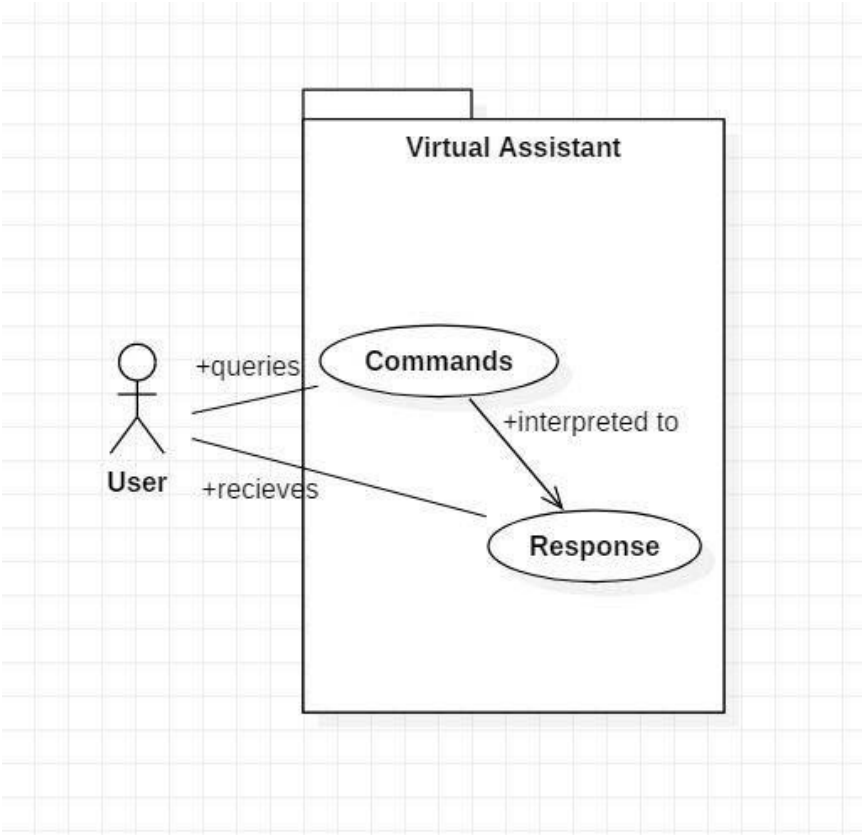
2. Visual Studio Hardware Interface
3. Development operating System: Windows OS
4. RAM :2G and more (Recommended :4G)
5. Processor: i3 and above (intel core processor

CHAPTER 6

DESIGN ANALYSIS

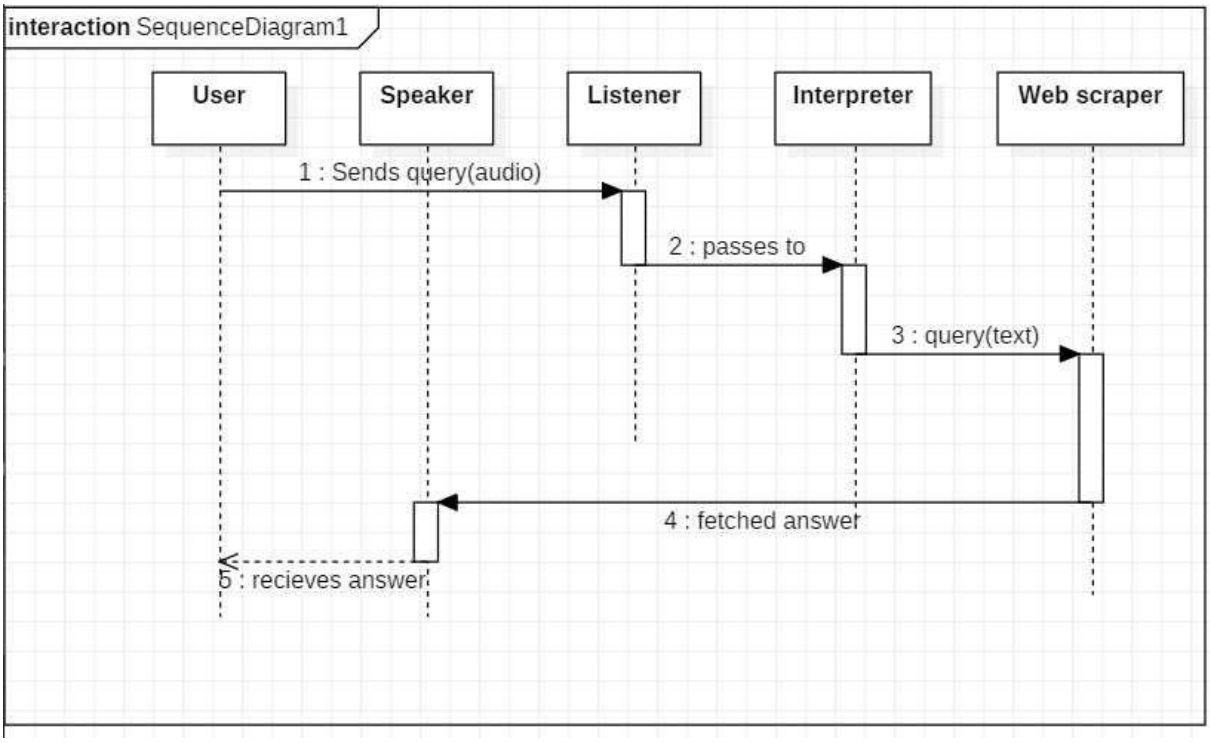
DESIGN & ANALYSIS

USE CASE DIAGRAM



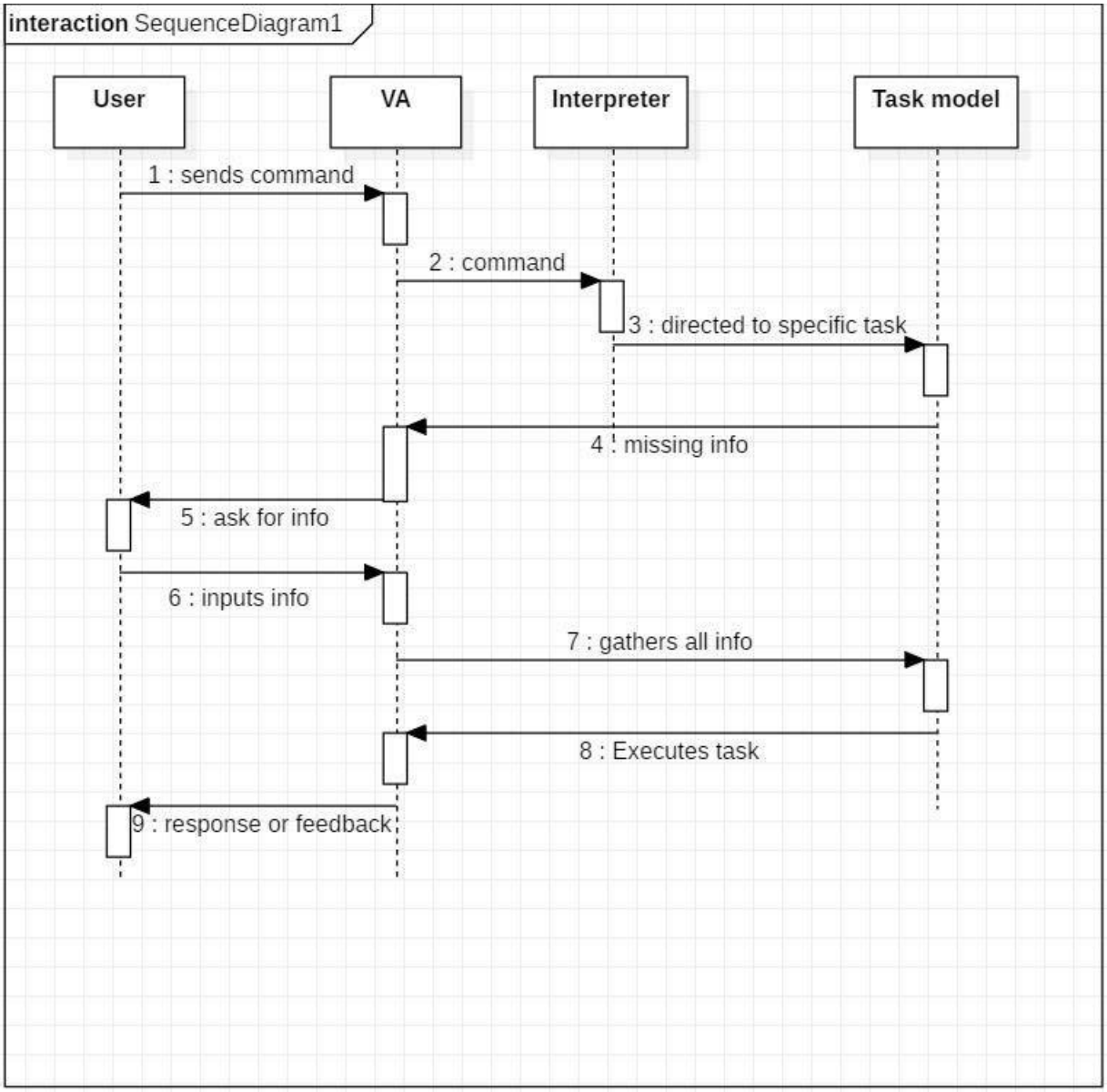
In this project there is only one user. The user queries command to the system. System then interprets it and fetches answer. The response is sent back to the user.

SEQUENCE DIAGRAM



The above sequence diagram shows how an answer asked by the user is being fetched from internet. The audio query is interpreted and sent to Web scraper. The web scraper searches and finds the answer. It is then sent back to speaker, where it speaks the answer to user.

Sequence diagram for Task Execution



The user sends command to virtual assistant in audio form. The command is passed to the interpreter. It identifies what the user has asked and directs it to task executer. If the task ismissing some info, the virtual assistant asks user back about it. The received information is sent back to task and it is accomplished. After execution feedback is sent back to user.

CHAPTER 7

IMPLEMENTATION

IMPLEMENTATION

Implementation is the stage where the theoretical design is turned into a working system. The most crucial stage in achieving a new successful system and in giving confidence on the new system for the users that it will work efficiently and effectively.

The system can be implemented only after thorough testing is done and if it is found to work according to the specification. It involves careful planning, investigation of the current system and it constraints on implementation, design of methods to achieve the change over and an evaluation of change over methods a part from planning.

Two major tasks of preparing the implementation are education and training of the users and testing of the system. The more complex the system being implemented, the more involved will be the system analysis and design effort required just for implementation.

The implementation phase comprises of several activities. The required hardware and software acquisition is carried out. The system may require some software to be developed. For this, programs are written and tested. The user then changes over to his new fully tested system and the old system is discontinued.

TESTING

The testing phase is an important part of software development. It is the Information zed system will help in automate process of finding errors and missing operations and also a complete verification to determine whether the objectives are met and the user requirements are satisfied. Software testing is carried out in three steps:

1. The first includes unit testing, where in each module is tested to provide its correctness, validity and also determine any missing operations and to verify whether theobjectives have been met. Errors are noted down and corrected immediately.
2. Unit testing is the important and major part of the project. So errors are rectified easily in particular module and program clarity is increased. In this project entire system is divided into several modules and is developed individually. So unit testing is conducted to individual modules.
3. The second step includes Integration testing. It need not be the case, the software whose modules when run individually and showing perfect results, will also show perfect results when run as a whole.

IMPLEMENTATION

PROGRAMMING CODE:

```
import
speech_rec
ognition
as sr #
recognise
speech
            import playsound # to play an audio files
            from gtts import gTTS # google text to speech
            import random
            from time import ctime # get time details
            import webbrowser # open browser
            import ssl
            import certifi
            import time
            import os # to remove created audio files
            from PIL import Image
            import subprocess
            import pyautogui #screenshot
            import pyttsx3
            import bs4 as bs
            import urllib.request


            class person:
                name = ''
                def setName(self, name):
                    self.name = name


            class asis:
                name = ''
                def setName(self, name):
                    self.name = name




            def there_exists(terms):
                for term in terms:
                    if term in voice_data:
                        return True
```

```
def engine_speak(text):
    text = str(text)
    engine.say(text)
    engine.runAndWait()


r = sr.Recognizer() # initialise a recogniser
# listen for audio and convert it to text:
def record_audio(ask=""):
    with sr.Microphone() as source: # microphone as source
        if ask:
            engine_speak(ask)
        audio = r.listen(source, 5, 5)  # listen for the audio
via source
        print("Done Listening")
        voice_data = ''
        try:
            voice_data = r.recognize_google(audio)  # convert
audio to text
        except sr.UnknownValueError: # error: recognizer does
not understand
            engine_speak('I did not get that')
        except sr.RequestError:
            engine_speak('Sorry, the service is down') #
error: recognizer is not connected
        print(">>", voice_data.lower()) # print what user said
        return voice_data.lower()


# get string and make a audio file to be played
def engine_speak(audio_string):
    audio_string = str(audio_string)
    tts = gTTS(text=audio_string, lang='en') # text to
speech(voice)
    r = random.randint(1,20000000)
    audio_file = 'audio' + str(r) + '.mp3'
    tts.save(audio_file) # save as mp3
    Play sound. playsound(audio_file) # play the audio file
    print(asis_obj.name + ":", audio_string) # print what app
said
    os.remove(audio_file) # remove audio file


def respond(voice_data):
    # 1: greeting
    if there_exists(['hey','hi','hello']):
```

```
        greetings = ["hey, how can I help you" +
person_obj.name, "hey, what's up?" + person_obj.name, "I'm
listening" + person_obj.name, "how can I help you?" +
person_obj.name, "hello" + person_obj.name]
        greet = greetings[random.randint(0,len(greetings)-1)]
        engine_speak(greet)


    # 2: name
    if there_exists(["what is your name","what's your
name","tell me your name"]):
        if person_obj.name:
            engine_speak("whats with my name ")
        else:
            engine_speak("i dont know my name . what's your
name?")


    if there_exists(["my name is"]):
        person_name = voice_data.split("is")[-1].strip()
        engine_speak("okay, i will remember that " +
person_name)
        person_obj.setName(person_name) # remember name in
person object

    if there_exists(["your name should be"]):
        asis_name = voice_data.split("be")[-1].strip()
        engine_speak("okay, i will remember that my name is "
+ asis_name)
        asis_obj.setName(asis_name) # remember name in asis
object


    # 3: greeting
    if there_exists(["how are you","how are you doing"]):
        engine_speak("I'm very well, thanks for asking " +
person_obj.name)


    # 4: time
    if there_exists(["what's the time","tell me the
time","what time is it"]):
        time = ctime().split(" ")[3].split(":")[0:2]
        if time[0] == "00":
            hours = '12'
        else:
            hours = time[0]
        minutes = time[1]
```

```
            time = hours + " hours and " + minutes + "minutes"
            engine_speak(time)


        # 5: search google
        if there_exists(["search for"]) and 'youtube' not in
    voice_data:
            search_term = voice_data.split("for")[-1]
            url = "https://google.com/search?q=" + search_term
            webbrowser.get().open(url)
            engine_speak("Here is what I found for" + search_term
    + "on google")


        # 6: search youtube
        if there_exists(["youtube"]):
            search_term = voice_data.split("for")[-1]
            url = "https://www.youtube.com/results?search_query="
    + search_term
            webbrowser.get().open(url)
            engine_speak("Here is what I found for " + search_term
    + "on youtube")


        #7: get stock price
        if there_exists(["price of"]):
            search_term = voice_data.split("for")[-1]
            url = "https://google.com/search?q=" + search_term
            webbrowser.get().open(url)
            engine_speak("Here is what I found for " + search_term
    + " on google")

        # search for music
        if there_exists(["play music"]):
            search_term= voice_data.split("for")[-1]
            url="https://open.spotify.com/search/"+search_term
            webbrowser.get().open(url)
            engine_speak("You are listening to"+ search_term
    +"enjoy sir")
        #search for amazon.com
        if there_exists(["amazon.com"]):
            search_term = voice_data.split("for")[-1]
            url="https://www.amazon.in"+search_term
            webbrowser.get().open(url)
            engine_speak("here is what i found for"+search_term +
    "on amazon.com")

        #make a note
```

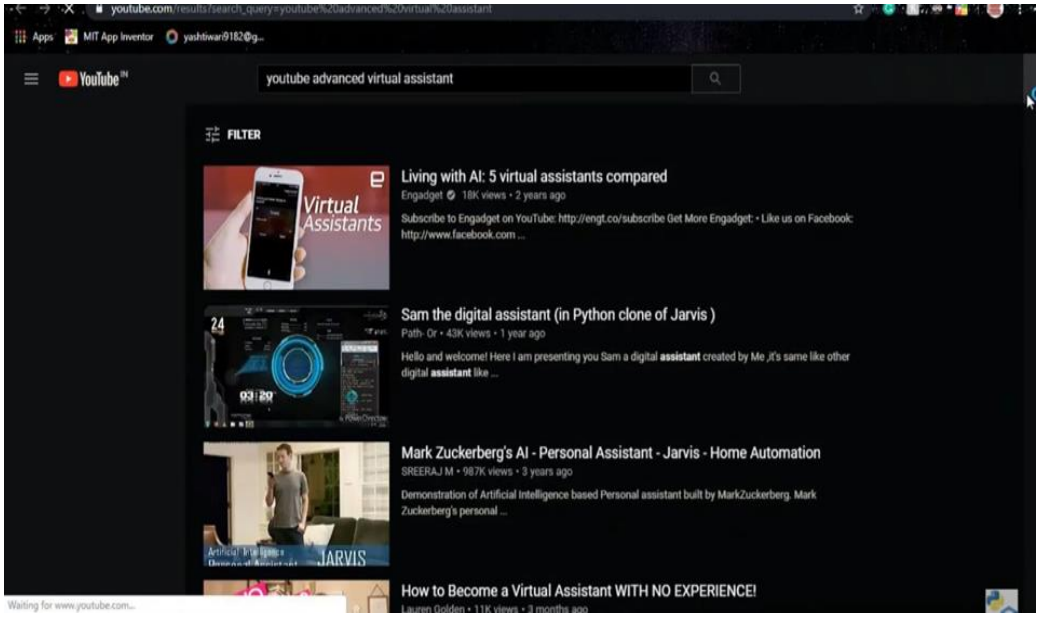
```
    if there_exists(["make a note"]):
        search_term=voice_data.split("for")[-1]
        url="https://keep.google.com/#home"
        webbrowser.get().open(url)
        engine_speak("Here you can make notes")

    #open instagram
    if there_exists(["open instagram","want to have some fun
time"]):
        search_term=voice_data.split("for")[-1]
        url="https://www.instagram.com/"
        webbrowser.get().open(url)
        engine_speak("opening instagram")

    #open twitter
    if there_exists(["open twitter"]):
        search_term=voice_data.split("for")[-1]
        url="https://twitter.com/"
        webbrowser.get().open(url)
        engine_speak("opening twitter")

    #8 time table
    if there_exists(["show my time table"]):
        im = Image.open(r"D:\WhatsApp Image 2019-12-26 at
10.51.10 AM.jpeg")
        im.show()

    #9 weather
    if there_exists(["weather","tell me the weather
report","whats the condition outside"]):
        search_term = voice_data.split("for")[-1]
        url =
"https://www.google.com/search?sxsrf=ACYBGNSQwMLDByBwdVFIUCbQq
ya-ET7AAA%3A1578847393212&ei=oUwbXtbXDN-C4-EP-
5u82AE&q=weather&oq=weather&gs_l=psy-
ab.3..35i39i285i70i256j0i67l4j0i131i67j0i131j0i67l2j0.1630.459
1..5475...1.2..2.322.1659.9j5j0j1......0....1..gws-
wiz.....10..0i71j35i39j35i362i39._5eSPD47bv8&ved=0ahUKEwiWrJvw
wP7mAhVfwTgGHfsNDxsQ4dUDCAs&uact=5"
        webbrowser.get().open(url)
        engine_speak("Here is what I found for on google")

    #open gmail
    if there_exists(["open my mail","gmail","check my
email"]):
        search_term = voice_data.split("for")[-1]
        url="https://mail.google.com/mail/u/0/#inbox"
        webbrowser.get().open(url)
```

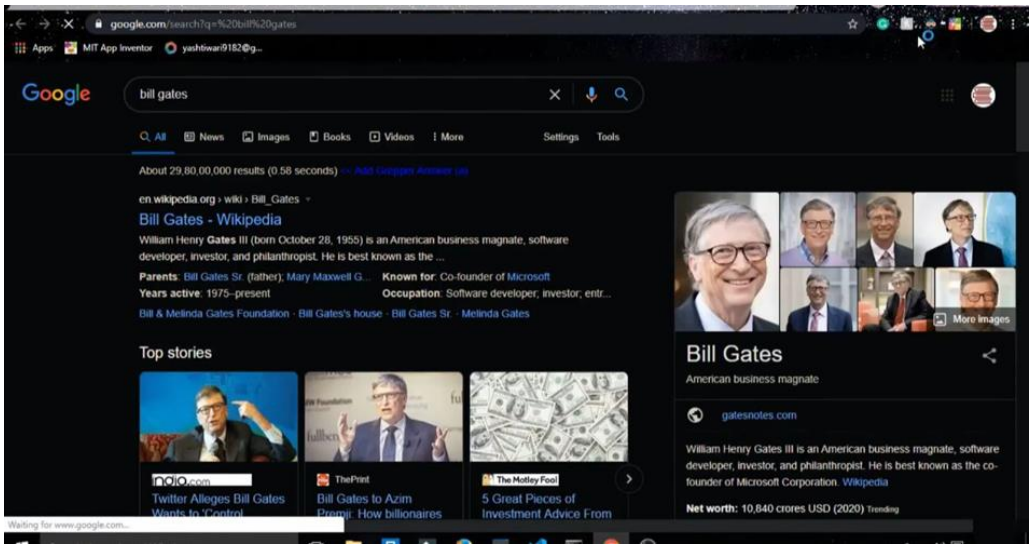
```
            engine_speak("here you can check your gmail")



        #10 stone paper scisorrs

        if there_exists(["game"]):
            voice_data = record_audio("choose among rock paper or
    scissor")
            moves=["rock", "paper", "scissor"]

            cmove=random.choice(moves)
            pmove=voice_data



            engine_speak("The computer chose " + cmove)
            engine_speak("You chose " + pmove)
            #engine_speak("hi")
            if pmove==cmove:
                engine_speak("the match is draw")
            elif pmove== "rock" and cmove== "scissor":
                engine_speak("Player wins")
            elif pmove== "rock" and cmove== "paper":
                engine_speak("Computer wins")
            elif pmove== "paper" and cmove== "rock":
                engine_speak("Player wins")
            elif pmove== "paper" and cmove== "scissor":
                engine_speak("Computer wins")
            elif pmove== "scissor" and cmove== "paper":
                engine_speak("Player wins")
            elif pmove== "scissor" and cmove== "rock":
                engine_speak("Computer wins")


        #11 toss a coin
        if there_exists(["toss","flip","coin"]):
            moves=["head", "tails"]
            cmove=random.choice(moves)
            engine_speak("The computer chose " + cmove)


        #12 calc
        if
    there_exists(["plus","minus","multiply","divide","power","+","
    -","*","/"]):
            opr = voice_data.split()[1]
```

```
        if opr == '+':
            engine_speak(int(voice_data.split()[0]) +
int(voice_data.split()[2]))
        elif opr == '-':
            engine_speak(int(voice_data.split()[0]) -
int(voice_data.split()[2]))
        elif opr == 'multiply':
            engine_speak(int(voice_data.split()[0]) *
int(voice_data.split()[2]))
        elif opr == 'divide':
            engine_speak(int(voice_data.split()[0]) /
int(voice_data.split()[2]))
        elif opr == 'power':
            engine_speak(int(voice_data.split()[0]) **
int(voice_data.split()[2]))
        else:
            engine_speak("Wrong Operator")

    #13 screenshot
    if there_exists(["capture","my screen","screenshot"]):
        myScreenshot = pyautogui.screenshot()

myScreenshot.save('C:/Users/YASH/Pictures/Screenshots')


    #14 to search wikipedia for definition
    if there_exists(["definition of"]):
        definition=record_audio("what do you need the
definition of")

url=urllib.request.urlopen('https://en.wikipedia.org/wiki/'+de
finition)
        soup=bs.BeautifulSoup(url,'lxml')
        definitions=[]
        for paragraph in soup.find_all('p'):
            definitions.append(str(paragraph.text))
        if definitions:
            if definitions[0]:
                engine_speak('im sorry i could not find that
definition, please try a web search')
            elif definitions[1]:
                engine_speak('here is what i found
'+definitions[1])
            else:
                engine_speak ('Here is what i found
'+definitions[2])
        else:
```

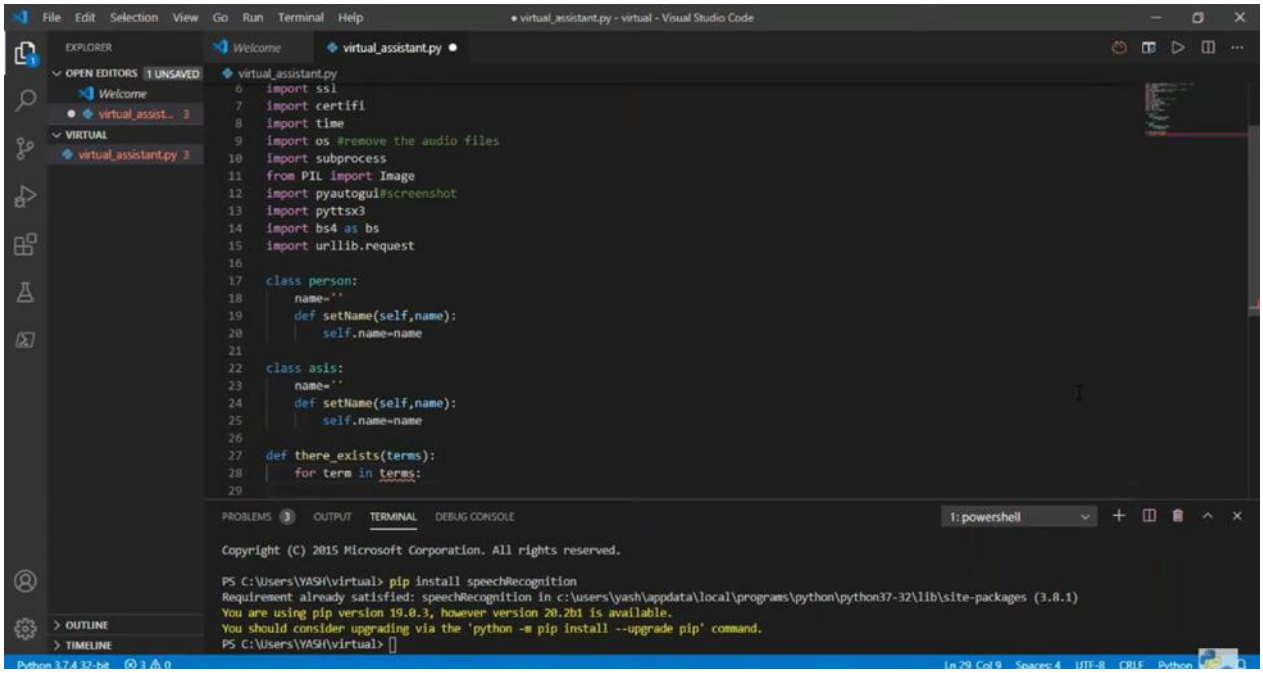
```
                engine_speak("im sorry i could not find the
definition for "+definition)




    if there_exists(["exit", "quit", "goodbye"]):
        engine_speak("we could continue more sir,
but.,,,..,,,,,,..,,,,, byee")
        exit()




time.sleep(1)


person_obj = person()
asis_obj = asis()
asis_obj.name = 'Kim'
engine = pyttsx3.init()




while(1):
    voice_data = record_audio("Recording") # get the voice
input
    print("Done")
    print("Q:", voice_data)
    respond(voice_data) # respond
```

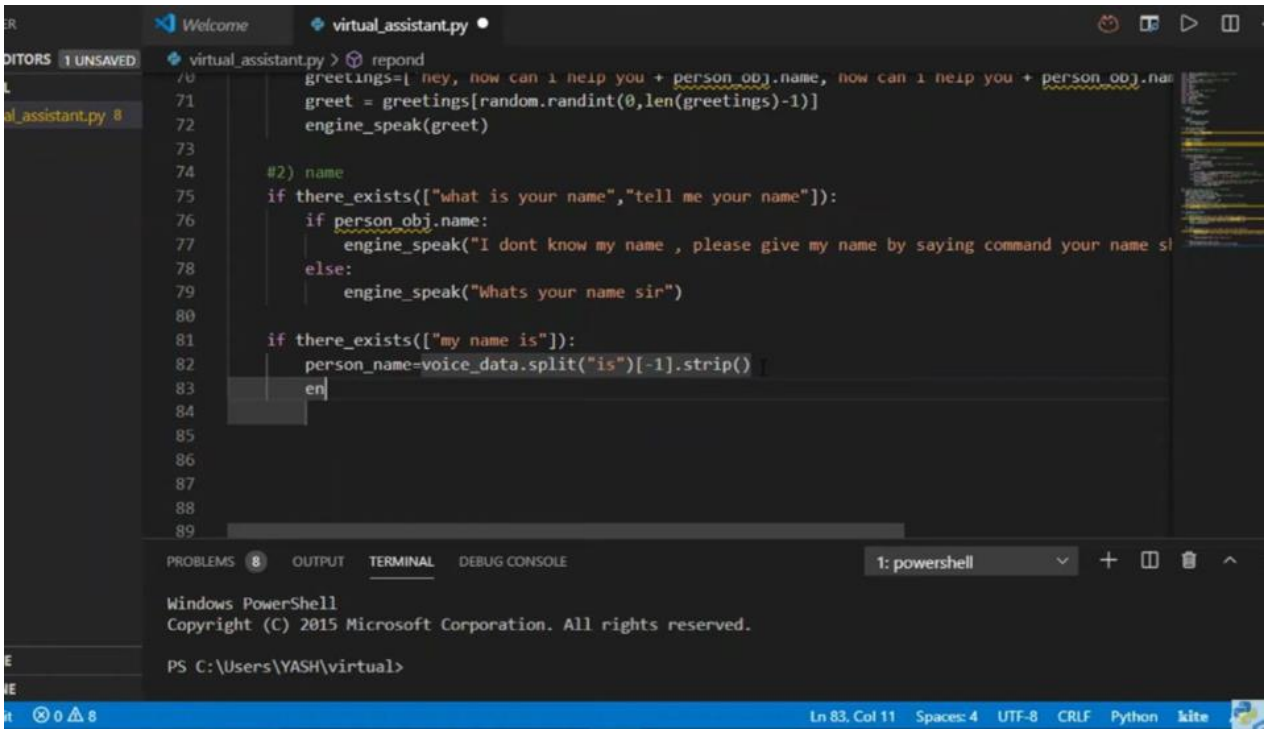
output

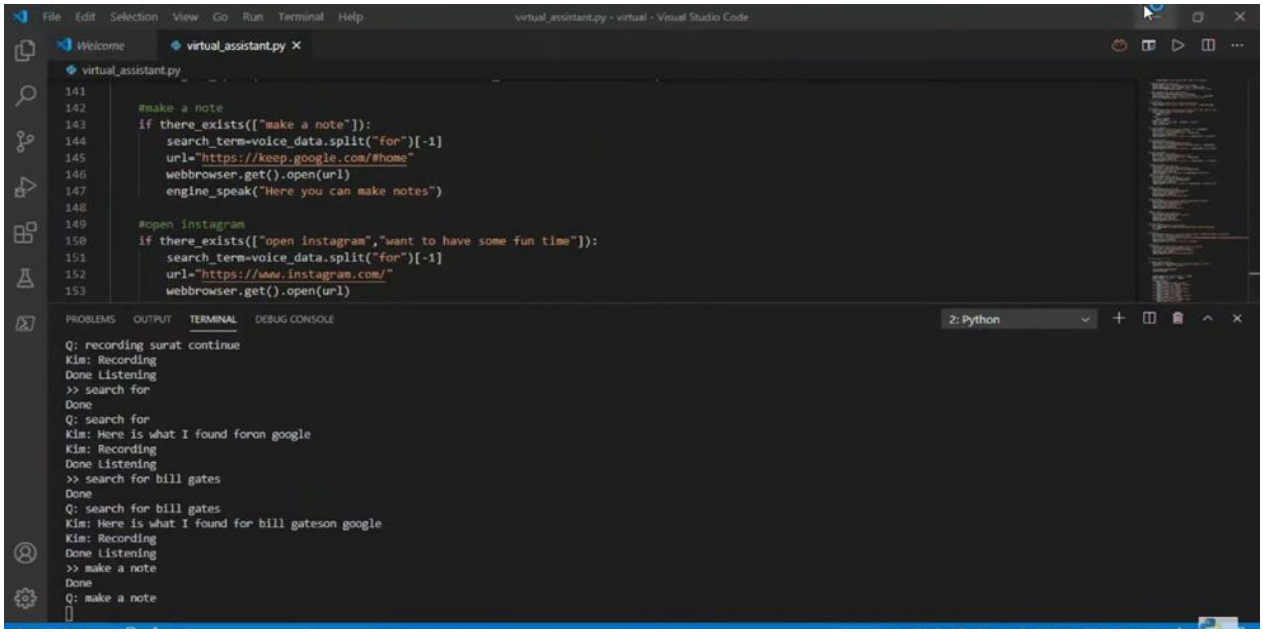

youtube advanced virtual assistant
FILTER
Living with AI: 5 virtual assistants compared
Engadget 18K views • 2 years ago
Subscribe to Engadget on YouTube: http://engt.co/subscribe Get More Engadget: • Like us on Facebook: http://www.facebook.com ...
Sam the digital assistant (in Python clone of Jarvis)
Path- Or • 43K views • 1 year ago
Hello and welcome! Here I am presenting you Sam a digital assistant created by Me ,it's same like other digital assistant like ...
Mark Zuckerberg's AI - Personal Assistant - Jarvis - Home Automation
SREERAJ M • 987K views • 3 years ago
Demonstration of Artificial Intelligence based Personal assistant built by MarkZuckerberg. Mark Zuckerberg's personal ...
How to Become a Virtual Assistant WITH NO EXPERIENCE!

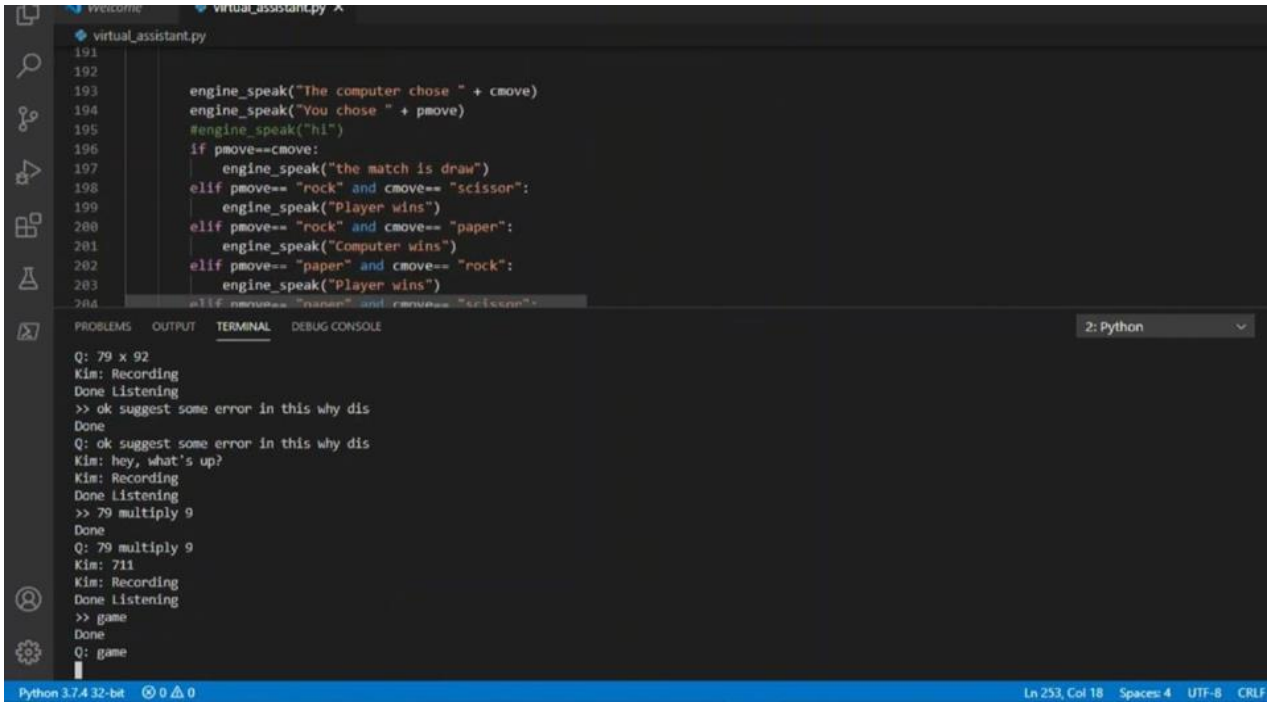

bill gates
About 29,80,00,000 results (0.58 seconds)
Bill Gates - Wikipedia
William Henry Gates III (born October 28, 1955) is an American business magnate, software developer, investor, and philanthropist. He is best known as the ...
Top stories
Twitter Alleges Bill Gates
Bill Gates to Azim
5 Great Pieces of Investment Advice From
Bill Gates
American business magnate
gatesnotes.com
William Henry Gates III is an American business magnate, software developer, investor, and philanthropist. He is best known as the co-founder of Microsoft Corporation. Wikipedia
Net worth: 10,840 crores USD (2020)

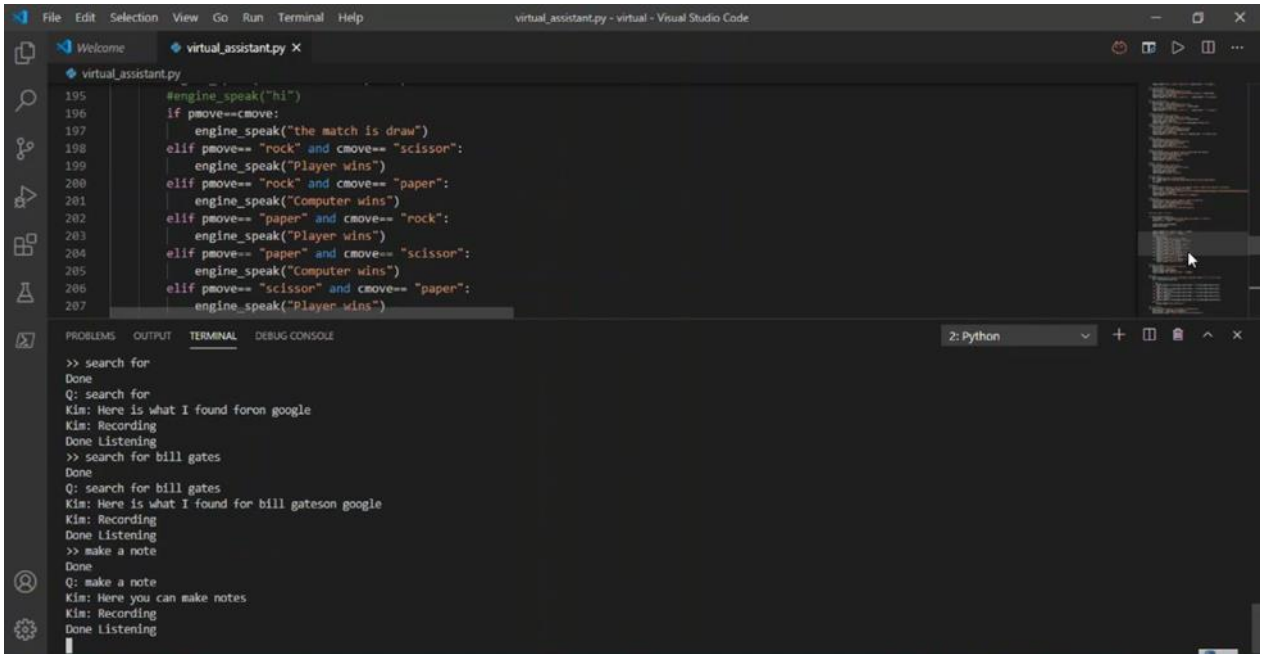
SNAPSHOTS

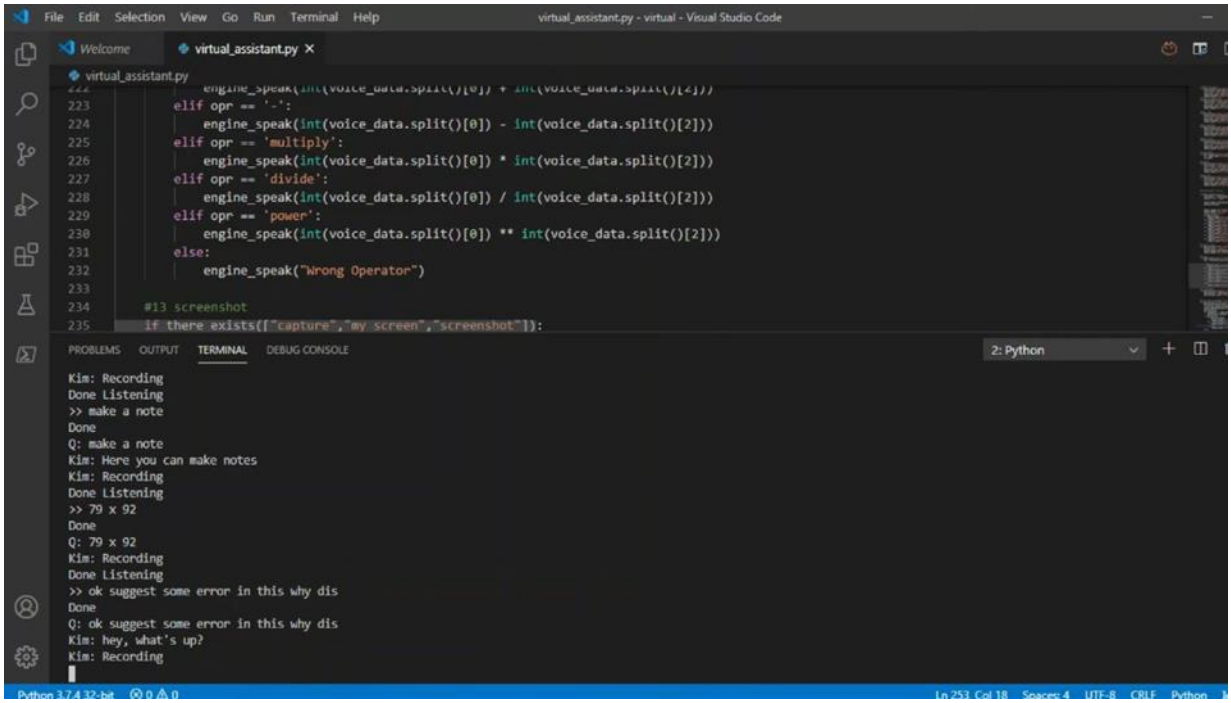

File Edit Selection View Go Run Terminal Help
• virtual_assistant.py - virtual - Visual Studio Code
EXPLORER
OPEN EDITORS 1 UNSAVED
Welcome
virtual_assist... 3
VIRTUAL
virtual_assistant.py 3
Welcome
virtual_assistant.py •
virtual_assistant.py
6 import ssl
7 import certifi
8 import time
9 import os #remove the audio files
10 import subprocess
11 from PIL import Image
12 import pyautogui#screenshot
13 import pyttsx3
14 import bs4 as bs
15 import urllib.request
16
17 class person:
18 name=''
19 def setName(self,name):
20 self.name=name
21
22 class asis:
23 name=''
24 def setName(self,name):
25 self.name=name
26
27 def there_exists(terms):
28 for term in terms:
29
PROBLEMS 3 OUTPUT TERMINAL DEBUG CONSOLE
1: powershell
Copyright (C) 2015 Microsoft Corporation. All rights reserved.
PS C:\Users\YASH\virtual> pip install speechRecognition
Requirement already satisfied: speechRecognition in c:\users\yash\appdata\local\programs\python\python37-32\lib\site-packages (3.8.1)
You are using pip version 19.0.3, however version 20.2b1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.
PS C:\Users\YASH\virtual>
OUTLINE
TIMELINE

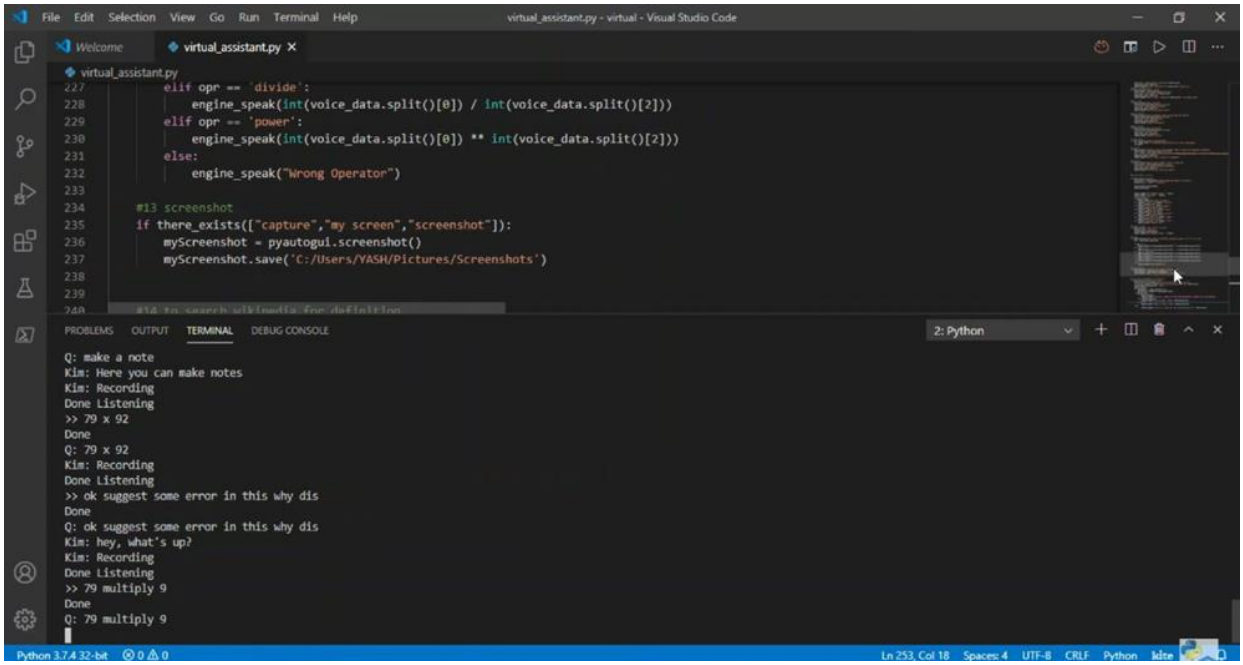

Welcome
virtual_assistant.py •
virtual_assistant.py > repond
greetings=[hey, how can i help you + person_obj.name, how can i help you + person_obj.nar
greet = greetings[random.randint(0,len(greetings)-1)]
engine_speak(greet)
#2) name
if there_exists(["what is your name","tell me your name"]):
if person_obj.name:
engine_speak("I dont know my name , please give my name by saying command your name s
else:
engine_speak("Whats your name sir")
if there_exists(["my name is"]):
person_name=voice_data.split("is")[-1].strip()
en
PROBLEMS 8 OUTPUT TERMINAL DEBUG CONSOLE
1: powershell
Windows PowerShell
Copyright (C) 2015 Microsoft Corporation. All rights reserved.
PS C:\Users\YASH\virtual>
Ln 83, Col 11 Spaces: 4 UTF-8 CRLF Python


virtual_assistant.py - virtual - Visual Studio Code
virtual_assistant.py
#make a note
if there_exists(["make a note"]):
search_term=voice_data.split("for")[-1]
url="https://keep.google.com/#home"
webbrowser.get().open(url)
engine_speak("Here you can make notes")
#open instagram
if there_exists(["open instagram","want to have some fun time"]):
search_term=voice_data.split("for")[-1]
url="https://www.instagram.com/"
webbrowser.get().open(url)
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
2: Python
Q: recording surat continue
Kim: Recording
Done Listening
>> search for
Done
Q: search for
Kim: Here is what I found foron google
Kim: Recording
Done Listening
>> search for bill gates
Done
Q: search for bill gates
Kim: Here is what I found for bill gateson google
Kim: Recording
Done Listening
>> make a note
Done
Q: make a note


virtual_assistant.py
engine_speak("The computer chose " + cmove)
engine_speak("You chose " + pmove)
#engine_speak("hi")
if pmove==cmove:
engine_speak("the match is draw")
elif pmove== "rock" and cmove== "scissor":
engine_speak("Player wins")
elif pmove== "rock" and cmove== "paper":
engine_speak("Computer wins")
elif pmove== "paper" and cmove== "rock":
engine_speak("Player wins")
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
2: Python
Q: 79 x 92
Kim: Recording
Done Listening
>> ok suggest some error in this why dis
Done
Q: ok suggest some error in this why dis
Kim: hey, what's up?
Kim: Recording
Done Listening
>> 79 multiply 9
Done
Q: 79 multiply 9
Kim: 711
Kim: Recording
Done Listening
>> game
Done
Q: game
Python 3.7.4 32-bit
Ln 253, Col 18
Spaces: 4
UTF-8
CRLF


File Edit Selection View Go Run Terminal Help
virtual_assistant.py - virtual - Visual Studio Code
Welcome
virtual_assistant.py
#engine_speak("hi")
if pmove==cmove:
engine_speak("the match is draw")
elif pmove== "rock" and cmove== "scissor":
engine_speak("Player wins")
elif pmove== "rock" and cmove== "paper":
engine_speak("Computer wins")
elif pmove== "paper" and cmove== "rock":
engine_speak("Player wins")
elif pmove== "paper" and cmove== "scissor":
engine_speak("Computer wins")
elif pmove== "scissor" and cmove== "paper":
engine_speak("Player wins")
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
2: Python
>> search for
Done
Q: search for
Kim: Here is what I found foron google
Kim: Recording
Done Listening
>> search for bill gates
Done
Q: search for bill gates
Kim: Here is what I found for bill gateson google
Kim: Recording
Done Listening
>> make a note
Done
Q: make a note
Kim: Here you can make notes
Kim: Recording
Done Listening


File Edit Selection View Go Run Terminal Help
virtual_assistant.py - virtual - Visual Studio Code
Welcome
virtual_assistant.py
elif opr == '-':
engine_speak(int(voice_data.split()[0]) - int(voice_data.split()[2]))
elif opr == 'multiply':
engine_speak(int(voice_data.split()[0]) * int(voice_data.split()[2]))
elif opr == 'divide':
engine_speak(int(voice_data.split()[0]) / int(voice_data.split()[2]))
elif opr == 'power':
engine_speak(int(voice_data.split()[0]) ** int(voice_data.split()[2]))
else:
engine_speak("Wrong Operator")
#13 screenshot
if there exists(["capture","my screen","screenshot"]):
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
2: Python
Kim: Recording
Done Listening
>> make a note
Done
Q: make a note
Kim: Here you can make notes
Kim: Recording
Done Listening
>> 79 x 92
Done
Q: 79 x 92
Kim: Recording
Done Listening
>> ok suggest some error in this why dis
Done
Q: ok suggest some error in this why dis
Kim: hey, what's up?
Kim: Recording


File Edit Selection View Go Run Terminal Help
virtual_assistant.py - virtual - Visual Studio Code
Welcome
virtual_assistant.py
virtual_assistant.py
elif opr == 'divide':
engine_speak(int(voice_data.split()[0]) / int(voice_data.split()[2]))
elif opr == 'power':
engine_speak(int(voice_data.split()[0]) ** int(voice_data.split()[2]))
else:
engine_speak("Wrong Operator")
#13 screenshot
if there_exists(["capture","my screen","screenshot"]):
myScreenshot = pyautogui.screenshot()
myScreenshot.save('C:/Users/YASH/Pictures/Screenshots')
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
2: Python
Q: make a note
Kim: Here you can make notes
Kim: Recording
Done Listening
>> 79 x 92
Done
Q: 79 x 92
Kim: Recording
Done Listening
>> ok suggest some error in this why dis
Done
Q: ok suggest some error in this why dis
Kim: hey, what's up?
Kim: Recording
Done Listening
>> 79 multiply 9
Done
Q: 79 multiply 9
Python 3.7.4 32-bit
Ln 253, Col 18
Spaces: 4
UTF-8
CRLF
Python
Idle

8. CONCLUTION

The package was designed in such a way that future modifications can be done easily. The following conclusions can be deduced from the development of the project:

- Automation of the entire system improves the efficiency
- It provides a friendly graphical user interface which proves to be better when compared to the existing system.
- It gives appropriate access to the authorized users depending on their permissions.
- It effectively overcomes the delay in communications.
- Updating of information becomes so easier
- System security, data security and reliability are the striking features.
- The System has adequate scope for modification in future if it is necessary.

The proposed system will act like an intermediate level of virtual assistant. It will perform more and more numbers of operations and do it easily for user. The main objective of this system is to reduce the user task and do it by itself for the user. In future, we can take our system to next level and make it advanced level of virtual personal assistant which can do almost all the operation which is done by the user

9. REFERENCE

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