VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belagavi90018

A PROJECT REPORT

ON

“Omega Virtual Assistant”

Submitted in partial fulfillment of
the requirements for the award of the degree of

Bachelor of Engineering
in
Computer Science and Engineering

Submitted by

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2021-2022

Malnad College of Engineering

Department of Computer Science and Engineering

Hassan - 573201, Karnataka, India

Certificate

This is to certify that project work entitled "Omega-Virtual Assiatant" is a bonafide work carried out by in partial fulfillment for the award of Bachelor of Engineering

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in Computer Science and Engineering of the Visvesvaraya Technological University, Belgavi during the year 2021-2022. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering Degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs. Kavya.D.	Dr. Geetha Kiran A	Dr. C V Venkatesh
Assistant Professor	Prof. & HOD	Principal
Dept. of CSE, MCE	Dept. of CSE, MCE	MCE

Examiners

Name of the Examiner	Signature of the Examiner
1.	
2.	

ABSTRACT

As we know Python is an emerging language so it becomes easy to write a script for Voice Assistant in Python. The instructions for the assistant can be handled as per the requirement of user. Speech recognition is the process of converting speech into text. This is commonly used in voice assistants like Alexa, Siri, etc. In Python there is an API called Speech Recognition which allows us to convert speech into text. It was an interesting task to make my own assistant. It became easier to send emails without typing any word, Searching on Google without opening the browser, and performing many other daily tasks like playing music, opening your favorite IDE with the help of a single voice command. In the current scenario, advancement in technologies are such that they can perform any task with same effectiveness or can say more effectively than us. By making this project, I realized that the concept of AI in every field is decreasing human effort and savingtime. Functionalities of this project include:

- It can playmusic.
- It can do Wikipedia searches foryou.
- It can open websites like Google, YouTube, etc., in a web browser.
- It can give weatherforecast.
- It can remind of yourchoice.
- It can have some basicconversation.
- It can take screen shot.
- It can explain its own features.
- It can tell current date and time.
- It can tell you battery and cpu usage.
- It can tell you non-funny jokes.
- It can shut down or logout or hibernate your system.
- It will run Stone, paper, scissor and snake game
- It can take selfie with the help of camera

- It will tell your location
- It will display the calender
- And many more

Now the basic question arises in mind that how it is an AI? The virtual assistant that I have created is like if it is not an A.I, but it is the output of a bundle of the statement. But fundamentally, the mail purpose of A.I machines is that it can perform human tasks with the same efficiency or even more efficiently than humans. It is a fact that my virtual assistant is not a very good example of A.I., but it is an A.I

ACKNOWLEDGEMENTS

Salutations to our beloved and highly esteemed institute “Malnad College Of Engineering” for having well qualified staff and labs furnished with necessary equipment.

The successful completion of any task would be incomplete without mentioning the people who have constantly guided and inspired for the project and the report generation.

We avail this opportunity to thank all those people who have helped us in the whole process of completion of this project and the report.

We would like to express our deepest gratitude to our mentor Mrs. Kavya D, Department of Computer Science & Engineering for her daily evaluation of the work and for providing us constant encouragement with her unflinching support and valuable guidance throughout this project. We are indebted to her as she has considered us worthy of this project and invested his faith in us. It was a great privilege to work under him. We will take away a lot more than just the technical knowledge from him.

We would also like to place our special thanks to Dr. C V Venkatesh, Principal, Malnad College Of Engineering for providing the opportunity and the facilities for the completion of our project.

Niriksha R Jain

Pratibha

Roja P K

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Chapter 1

Introduction

1.1 Introduction to Omega Virtual Assistant

Artificial Intelligence when used with machines, it shows us the capability of thinking like humans. In this, a computer system is designed in such a way that typically requires interaction from human. As we know Python is an emerging language so it becomes easy to write a script for Voice Assistant in Python. The instructions for the assistant can be handled as per the requirement of user. Speech recognition is the Alexa, Siri, etc. In Python there is an API called Speech Recognition which allows us to convert speech into text. It was an interesting task to make my own assistant. It became easier to Searching on Google without opening the browser, and performing many other daily tasks like playing music, opening your favorite IDE with the help of a single voice command. In the current scenario, advancement in technologies are such that they can perform any task with same effectiveness or can say more effectively than us. By making this project, I realized that the concept of AI in every field is decreasing human effort and savingtime. As the voice assistant is using Artificial Intelligence hence the result that it is providing are highly accurate and efficient. The assistant can help to reduce human effort and consumes time while performing any task, they removed the concept of typing completely and behave as another individual to whom we are talking and asking to perform task. The assistant is no less than a human assistant but we can say that this is more effective and efficient to perform any task. The libraries and packages used to make this assistant focuses on the time complexities and reducestime. The functionalities include , It can play music, It can do Wikipedia searches for you, It can openwebsites like Google, YouTube, etc., in a web browser, It can give weather forecast, It can give desktop reminders of your choice. It can have some basicconversation, It can take screen shot, It can explain its own features, It can tell current date and time, It can tell you battery and cpu usage, It can tell you non-funny jokes, It can shut down or logout or hibernate your system. Tools and technologies used are VS Code for making this project, and I created all py files in VS Code. Along with this I used following modules and libraries in my project. pyttsx3, Speech Recognition, Date time, Wikipedia, smtblib, web browser, pyautogui, psutil, pyjokes, and request.

1.2 Objective

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 u'here a voice asks the user "What can 1 do for you?" and then responds to verbal input. Virtual assistants can tremendously save you time. We spend hours in online research and then making the report in our terms of understanding. JIA can do that for you. Provide a topic for research and continue with your tasks while JIA does the research. Another difficult task is to remember test dates, birthdates or anniversaries. It comes with a surprise when you enter the class and realize it is class test today. Just tell JIA in advance about your tests and she reminds you well in advance so you can prepare for thetest. One of the main advantages of voice searches is their rapidity.

In fact, voice is reputed to be four times faster than a written search: whereas we can write about 40 words per minute, we are capable of speaking around 150 during the same period of timel5. In this respect, the ability of personal assistants to accurately recognize spoken words is a prerequisite for them to be adopted by consumers

1.3 Purpose

Purpose of virtual assistant is to being capable of voice interaction, music playback, making to-do lists, setting alarms, streaming podcasts, playing audiobooks, and providing weather, traffic, sports, and other real-time information, such as news. Virtual assistants enable users to speak natural language voice commands in order to operate the device and its apps. There is an increased overall awareness and a higher level of comfort demonstrated specifically by millennial consumers. In this ever-evolving digital world where speed, efficiency, and convenience are constantly being optimized, it s clear that we are moving towards less screen interaction.

1.4 Scope

Voice assistants will continue to offer more individualized experiences as they get better at differentiating between voices. However, it's not just developers that need to address the complexity of developing for voice as brands also need to understand the capabilities of each device and integration and if it makes sense for their specific brand. They will also need to focus on maintaining a user experience that is consistent within the coming years as complexity becomes more of a concern. This is because the visual interface with voice assistants is missing. Users simply cannot see or touch a voice interface.

1.5 Applicability

The mass adoption of artificial intelligence in users' even day lives is also fueling the shift towards voice. The number of IoT devices such as smart thermostats and speakers are giving voice assistants more utilip in a connected user's life Smart speakers are the number one way we are seeing voice being used. Many industry experts even predict that nearly every application will integrate voice technology in some way in the next 5 years. The use of virtual assistants can also enhance the system of IoT (Internet of Things). Twenty years from now, Microsoft and its competitors will be offering personal digital assistants that will offer the services of a full-time employee usually reserved for the rich and famous.

Chapter 2

Software Requirements

This section lists the minimum hardware and software requirements needed to run system efficiently.

2.1 Hardware Requirements

- Processor minimum i3 required
- Hard Disk: Minimum 250GB HDD
- CPU Type: I.6GHz or faster processor
- RAM: Minimum 1 GB
- Internet Connection

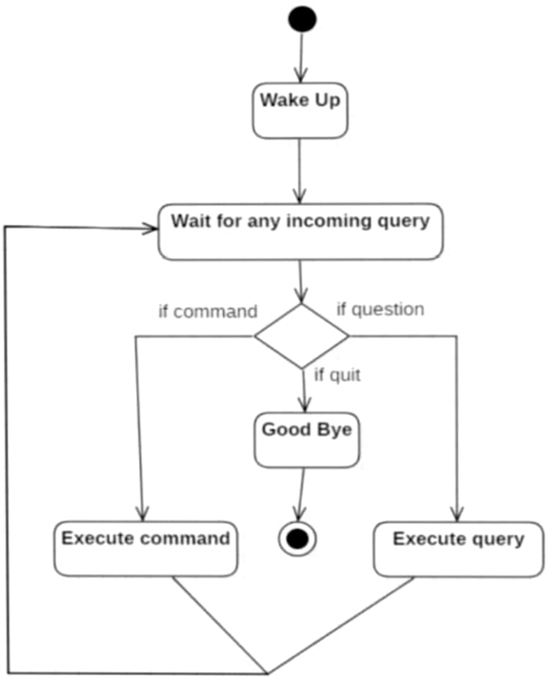
2.2 Software Requirements

- Microsoft windows operating system
- Python 3.7.4
- VS Code
- OS:WINDOWS 8,10

Chapter 3

System Design

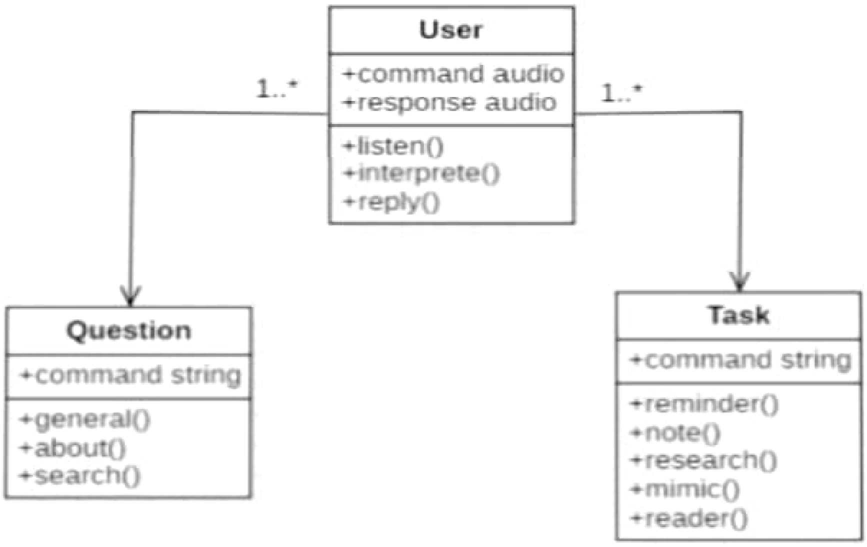
3.1 Activity Diagram



Initially, the system is in idle mode. As it receives any wake up cal it begins execution.

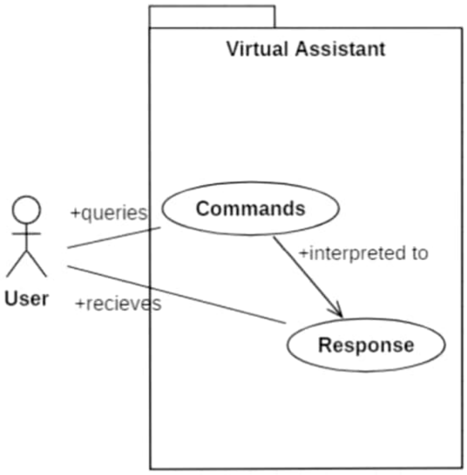
The received command is identified whether it is a questionnaire or a task to be performed. Specific action is taken accordingly. After the Question is being answered or the task is being performed, the system waits for another command. This loop continues unless it receives quit command. At that moment, it goes back to sleep

3.2 Class Diagram



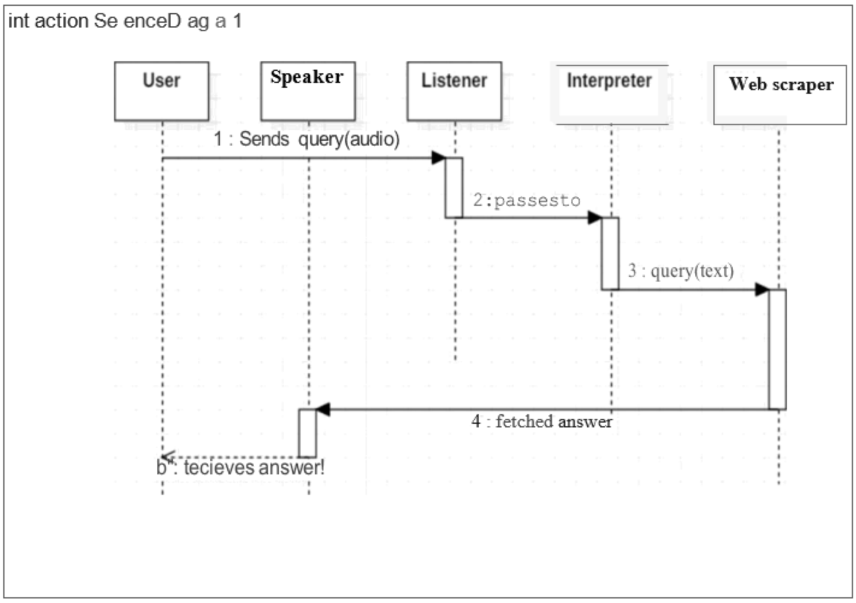
The class user has 2 attributes command that it sends in audio and the response it receives which is also audio. It performs function to listen the user command. Interpret it and then reply or sends back response accordingly. Question class has the command in string form as it is interpreted by interpret class. It sends it to general or about or search function based on its identification. The task class also has interpreted command in string format. It has various functions like reminder, note, mimic, research and reader.

3.3 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.

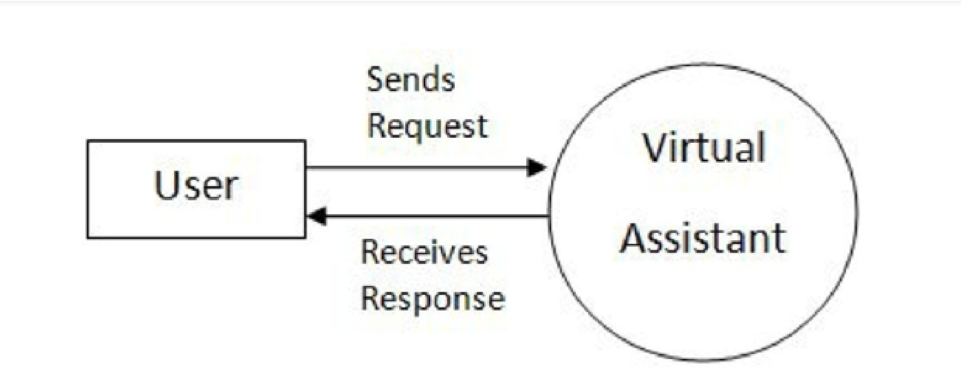
3.4 Sequence Diagram For Task Execution



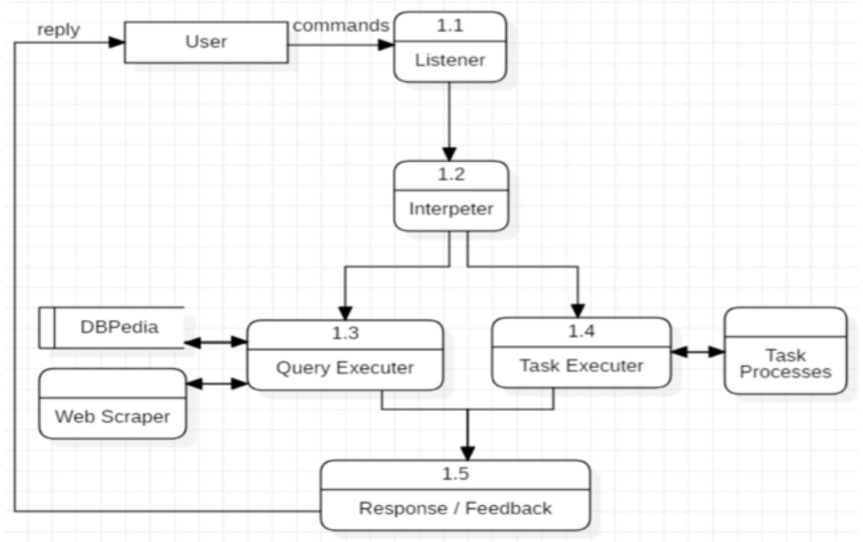
The user sends command to virtual assistant in audio form. The command is passed to the interpreter. It identifies what the user has asked and directs it to task executed. If the task is missing some info, the virtual assistant asks user back about it. The received information is sent back to task and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

3.5 Data Flow Diagram

DFD Level 0 (Context Level Diagram)

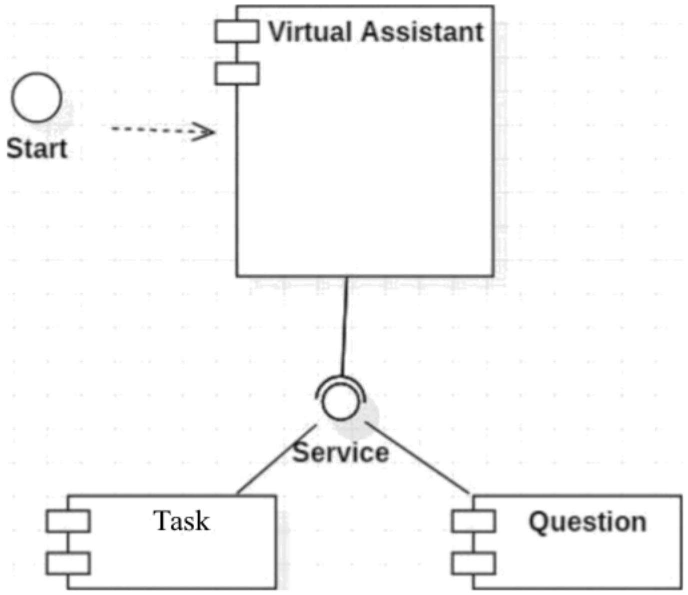


DFD Level 1



Data Flow in Assistance

3.6 Component Diagram



The main component here is the Virtual Assistant. lt provides two specific service, executing Task or Answering your question.

Chapter 4

Literature Survey

4.1 Python:

What is Python?

Python is a popular programming language. It was created by Guido van Rossum, and released in 1991. It is used for:

- web development(server-side),
- software development,
- mathematics,
- system scripting.

What can Python do?

- Python can be used on a server to create web applications.
- Python can be used along side software to create workflows.
- Python can connect to database systems. It can also read and modify files.
- Python can be used to handle big data and perform complex mathematics.
- Python can be used for rapid prototyping, or for production-ready software development.

Why Python?

- Python works on different platforms (Windows, Mac, Linux, Raspberry Pi,etc).
- Python has a simple syntax similar to the English language.
- Python has syntax that allows developers to write programs with fewer lines than some other programming languages.
- Python runs on an interpreter system, meaning that code can be executed as soon as it is written. This means that prototyping can be very quick.

Good to know

The most recent major version of Python is Python 3, which we shall be using in this tutorial. However, Python 2, although not being updated with anything other than security updates, is still quite popular. In this Project Python will be written in a text editor. It is possible to write Python in an Integrated Development Environment, such as Thonny, Pycharm, Netbeans or Eclipse which are particularly useful when managing larger collections of Python files.

Python Syntax compared to other programming languages

- Python was designed for readability, and has some similarities to the English language with influence from mathematics.
- Python uses new lines to complete a command, as opposed to other programming languages which often use semicolons or parentheses.
- Python relies on indentation, using whitespace, to define scope; such as the scope of loops, functions and classes. Other programming languages often use curly-brackets for this purpose.

4.2 Introduction to VS Code

Visual Studio Code, also commonly referred to as VS Code, is a source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git.

Chapter 5

Result And Discussion

Implementation Work Details:

OMEGA, a desktop assistant is a voice assistant that can perform many daily tasks of desktop like playing music, opening your favorite music with the help of a single voice command. Omega is different from other traditional voice assistants in terms that it is specific to desktop and user does not need to make account to use this, it does not require any internet connection while getting the instructions to perform any specific task.

REAL LIFE APPLICATION

Saves time:

OMEGA is a desktop voice assistant which works on the voice command offered to it, it can do voice searching, voice-activated device control and can let us complete a set of tasks.

Conversational interaction:

It makes it easier to complete any task as it automatically do it by using the essential module or libraries of Python, in a conversational interaction way. Hence any user when instruct any task to it, they feel like giving task to a human assistant because of the conversational interaction for giving input and getting the desired output in the form of task done.

Reactive nature:

The desktop assistant is reactive which means it know human language very well and understand the context that is provided by the user and gives response in the same way, i.e. human understandable language, English. So user finds its reaction in an informed and smart way.

Multitasking:

The main application of it can be its multitasking ability. It can ask for continuous instruction one after other until the user “QUIT”it

Chapter 6

Conclusion And Future Enhancement

OMEGA is a very helpful voice assistant without any doubt as it saves time of the user by conversational interactions, its effectiveness and efficiency. But while working on this project, there were some limitations encountered and also realized some scope of enhancement in the future which are mentioned below:

6.1 Limitations

- security is somewhere an issue, there is no voice command encryption in this project.
- item Background voice can interfere
- Misinterpretation because of accents and may cause inaccurate results.
- OMEGA cannot be called externally anytime like other traditional assistants like Google Assistant can be called just by saying, "Ok Google!"

6.2 Scope For Future Work

- Make OMEGA to learn more on its own and develop a new skill in it.

- OMEGA android app can also be developed. Make more OMEGA voice terminals.
- Voice commands can be encrypted to maintain security.

Chapter 7

Data Implementation And Program Execution

As the first step, install all the necessary packages and libraries. The command used to install the libraries is “pip install” and then import it The necessary packages included are as follows.

Libraries And Packages:

Pyttsx3

Pyttsx3 is a text-to-speech conversion library in Python. Unlike alternative libraries, it can works offline and is compatible with both Python 2 and 3. An application invokes the pyttsx3.init() factory function to get a reference to a pyttsx3. Engine instance. it is a very easy to use tool which converts the entered text into speech.

Installation: Pip install pttsx3

If you receive errors such as No module named win32com.client, No module named win32, or No module named win32api, you will need to additionally install pypiwin32

Speech Recognition:

Speech Recognition is an important feature in several applications used such as home automation, artificial intelligence, etc. This article aims to provide an introduction on how to make use of the Speech Recognition library of Python. This is useful as it can be used on micro controllers such as Raspberry Pis with the help of an external microphone.

Installation:

pip install speech recognition. See the ”installing” section for more details to quickly try it out, python -m speech recognition after installing.

Wikipedia:

is a Python library that makes it easy to access and parse data from Wikipedia. Search Wikipedia, get article summaries, get data like links and images from a page, and more.

Installation:

To install Wikipedia, simply run:

pip install wikipedia

Date Time:

The http://pypi.org/project/datetime2 module provides date and time classes to Python.

In addition to the features of the standard datetime module, adding the capability of constructing and representing date and time in many formats and removing a few limits that the original package has

Installation:

S pip install datetime

Pyjokes: One line jokes for programmers (jokes as a service)

Installation:

Install the pyjokes module with pip

Smtplib:

This is a dummy implementation of a module for the standard library of Python project. It contains zero or very little functionality and primarily intended to avoid import errors (using idea that even if an application imports a mrodule, it may be not using it one very code path. so may work at least partially). It is expected that more complete implementation of the module will be provided later.please help with the development if you are interested in the this module.

Installation:

Instal the smtplib moodule with pip

Web browser:

It provides interface for displaying web-based documents tousers.

Installation:

Install the web browser module with pip.

Pyautogui:

It is a python library for graphical user interface.

- os: It represents Operating System related functionality.
- sys: It allows operating on the interpreter as it provides access to the variables and functions that usually interact strongly with theinterpreter.

  Install the pyautogui module with pip.

FUNCTIONS

takeCommand(): The function is used to take the command as input through microphone of user and returns the output as string.

wishMe():

This function greets the user according to the time like Good Morning, Good Afternoon and GoodEvening.

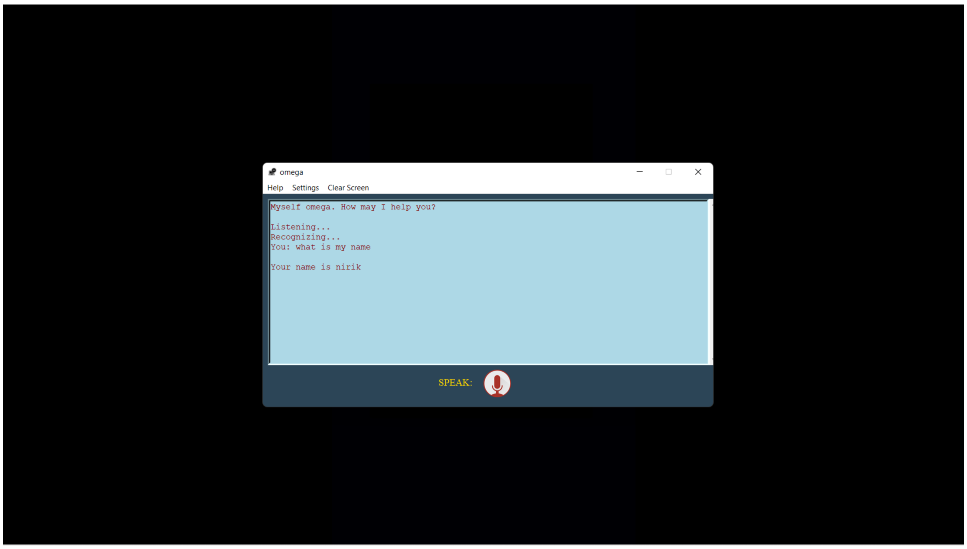
taskExecution():

This is the function which contains all the necessary task execution definition like sendEmail(), pdf reader(), news() and many conditions in if condition like “open google”, “open notepad”, “search on Wikipedia” ,”play music” and “open command prompt”etc.

Chapter 8

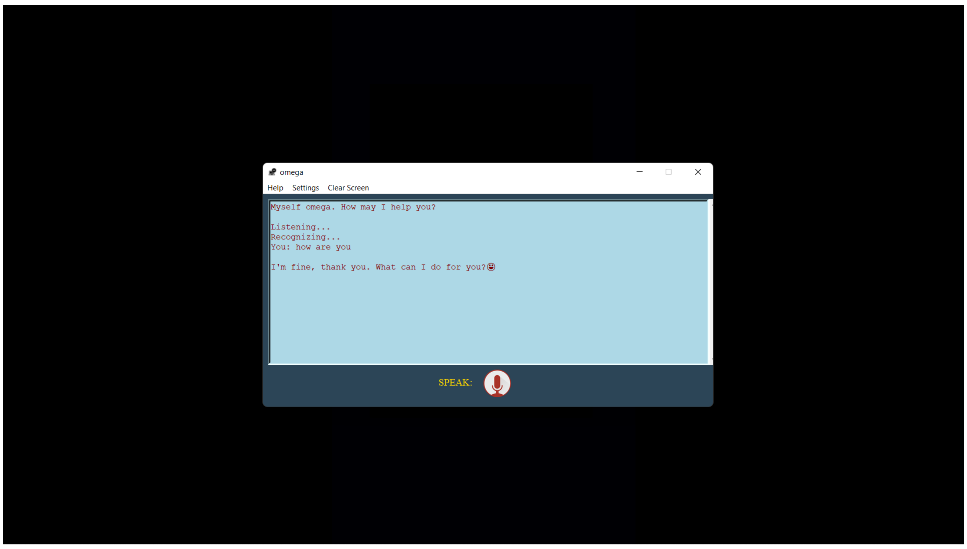
Screenshots

WHAT IS CREATOR'S NAME:



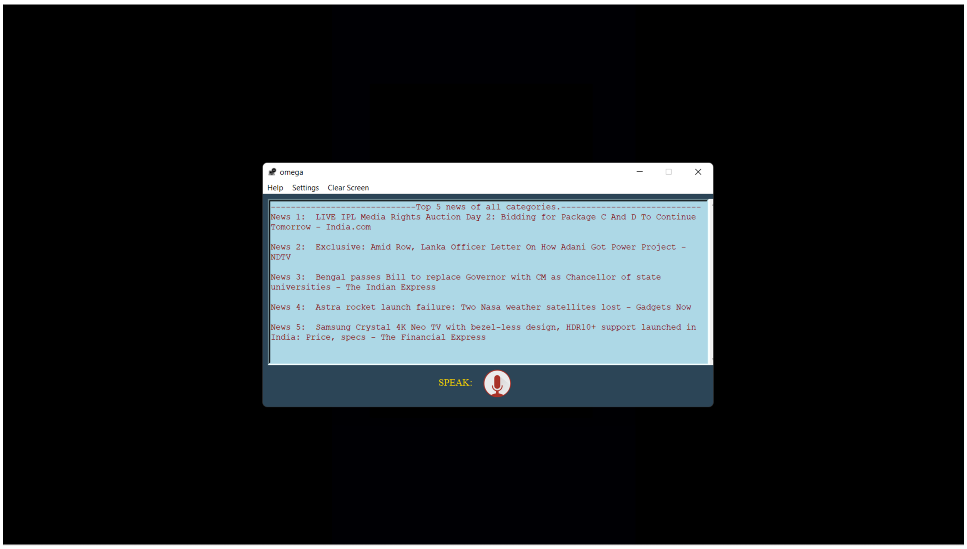
```
Myself omega. How may I help you?

Listening...
Recognizing...
You: what is my name

Your name is nirik
```

GREETING:



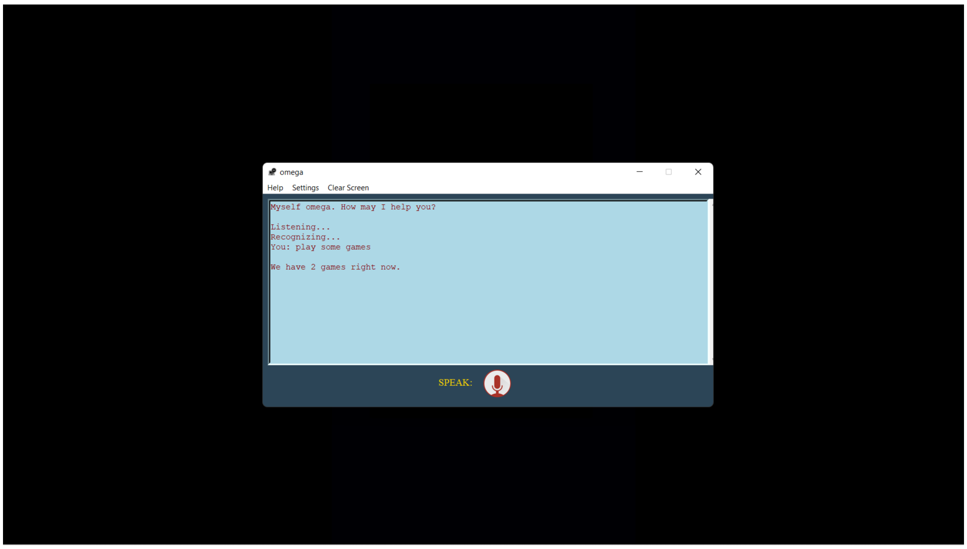
```
Myself omega. How may I help you?

Listening...
Recognizing...
You: how are you

I'm fine, thank you. What can I do for you?😃
```

TOP 5 NEWS:



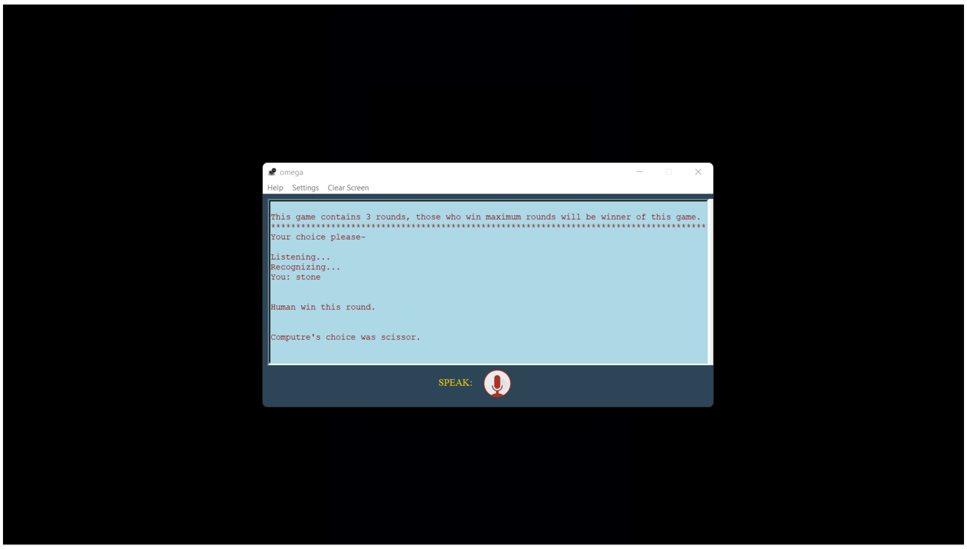
```
----------------------------Top 5 news of all categories.---------------------------
News 1:  LIVE IPL Media Rights Auction Day 2: Bidding for Package C And D To Continue
Tomorrow - India.com

News 2:  Exclusive: Amid Row, Lanka Officer Letter On How Adani Got Power Project -
NDTV

News 3:  Bengal passes Bill to replace Governor with CM as Chancellor of state
universities - The Indian Express

News 4:  Astra rocket launch failure: Two Nasa weather satellites lost - Gadgets Now

News 5:  Samsung Crystal 4K Neo TV with bezel-less design, HDR10+ support launched in
India: Price, specs - The Financial Express
```

GAME(a):



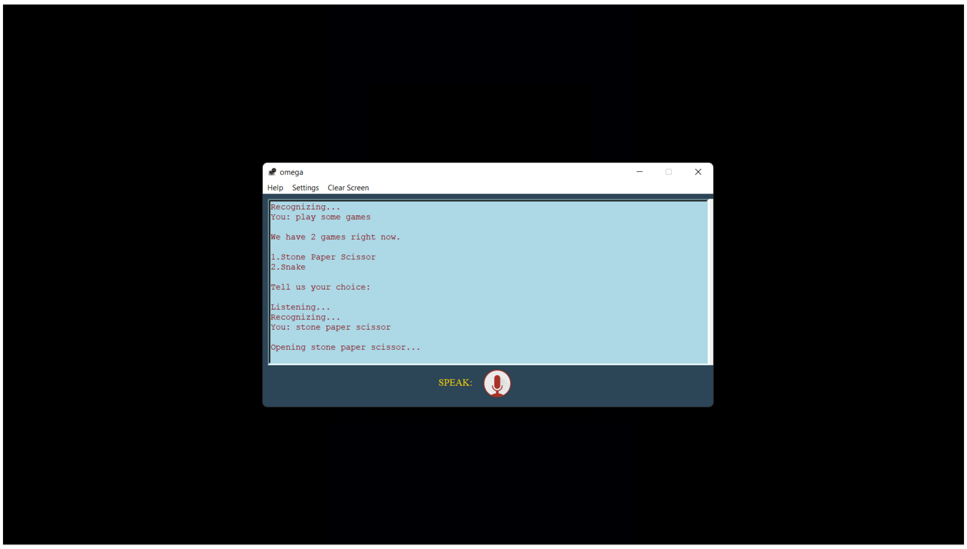
```
Myself omega. How may I help you?

Listening...
Recognizing...
You: play some games

We have 2 games right now.
```

GAME(b):



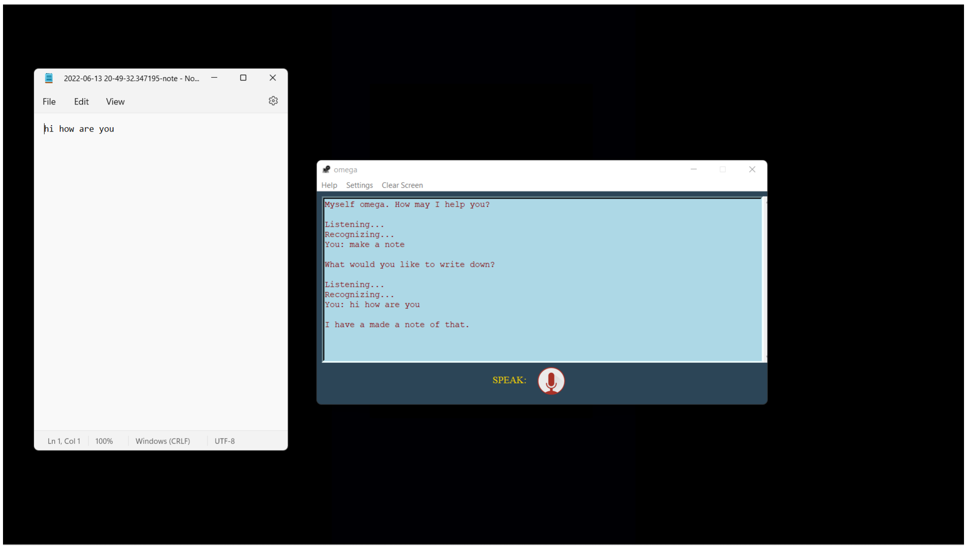
```
This game contains 3 rounds, those who win maximum rounds will be winner of this game.
***************************************************************************************
Your choice please-

Listening...
Recognizing...
You: stone


Human win this round.


Computre's choice was scissor.
```

GAME(c):



```
Recognizing...
You: play some games

We have 2 games right now.

1.Stone Paper Scissor
2.Snake

Tell us your choice:

Listening...
Recognizing...
You: stone paper scissor

Opening stone paper scissor...
```

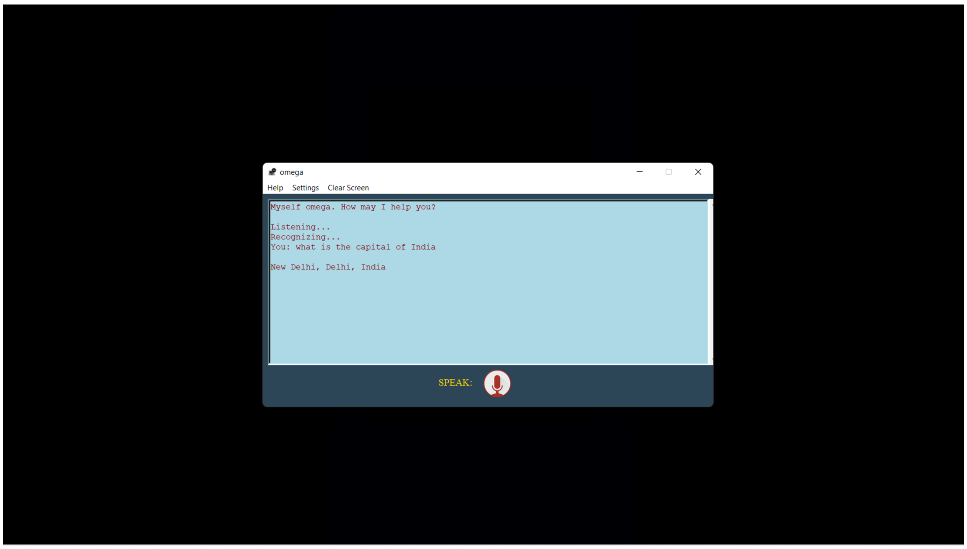
MAKING A NOTE:



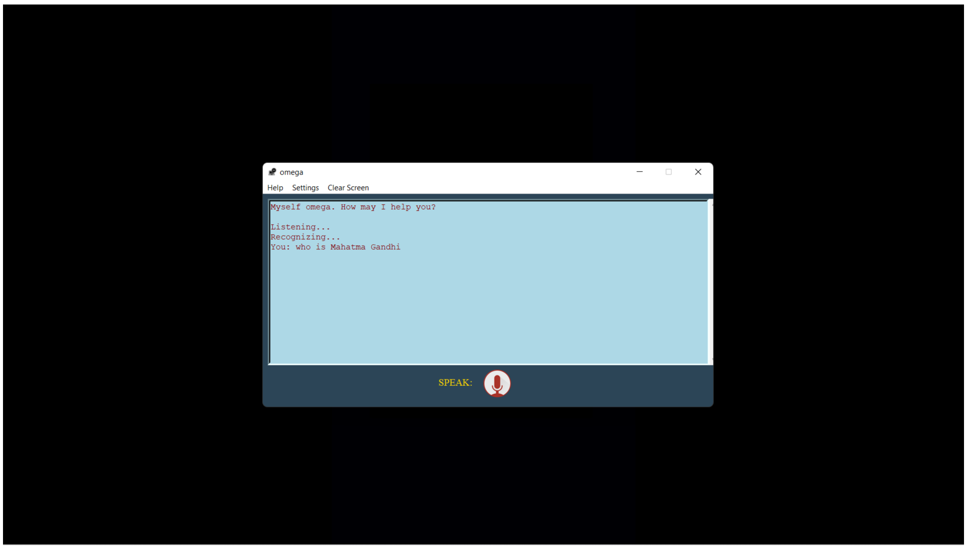
```
hi how are you
```

```
Myself omega. How may I help you?

Listening...
Recognizing...
You: make a note

What would you like to write down?

Listening...
Recognizing...
You: hi how are you

I have a made a note of that.
```

GENERAL KNOWLEDGE QUESTION:

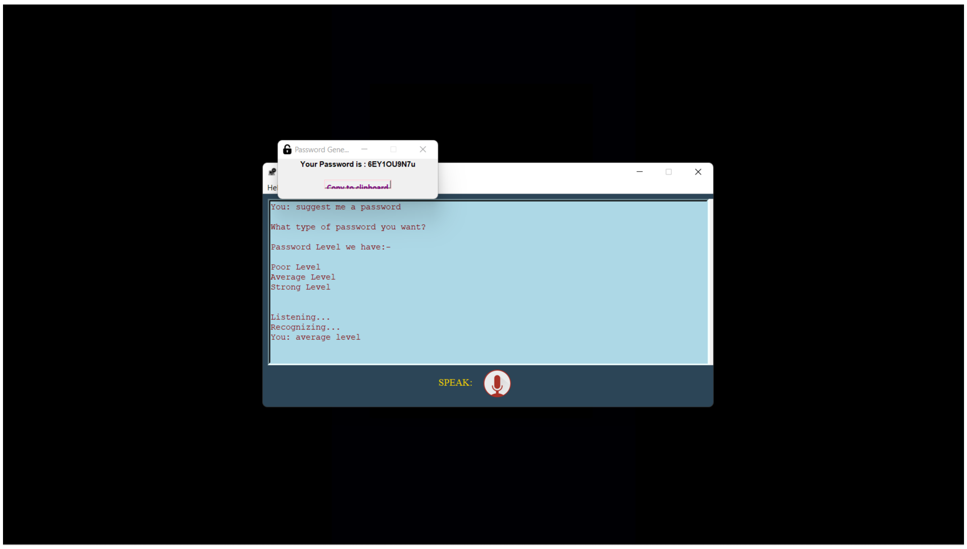


```
Myself omega. How may I help you?

Listening...
Recognizing...
You: what is the capital of India

New Delhi, Delhi, India
```



```
Myself omega. How may I help you?

Listening...
Recognizing...
You: who is Mahatma Gandhi
```

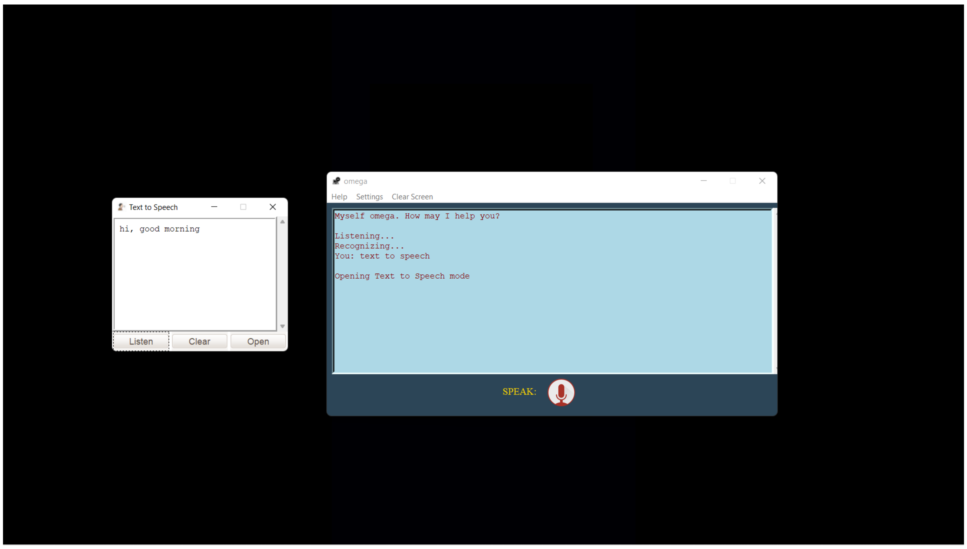
SUGGESTING AN PASSWORD::



Your Password is : 6EY1OU9N7u

```
You: suggest me a password

What type of password you want?

Password Level we have:-

Poor Level
Average Level
Strong Level


Listening...
Recognizing...
You: average level
```

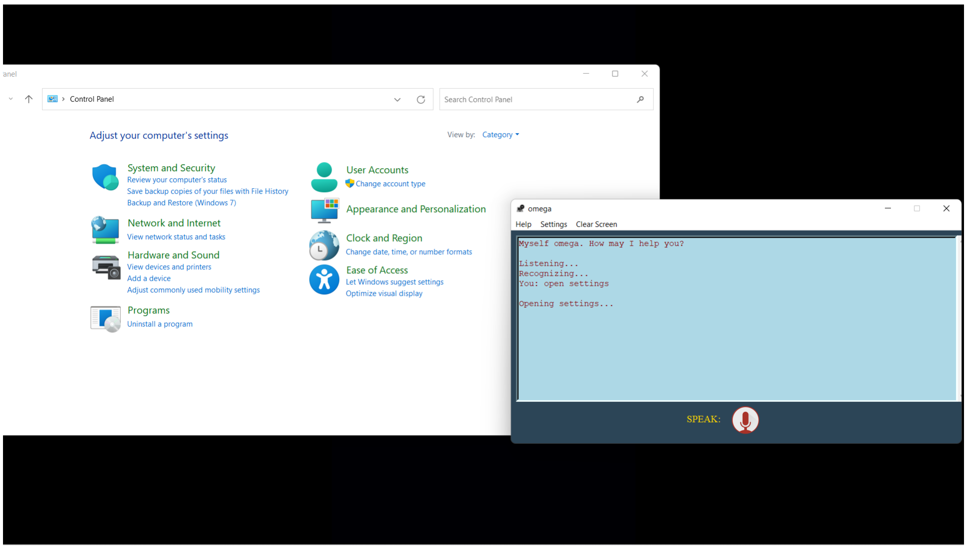
TEXT TO SPEECH:



```
hi, good morning
```

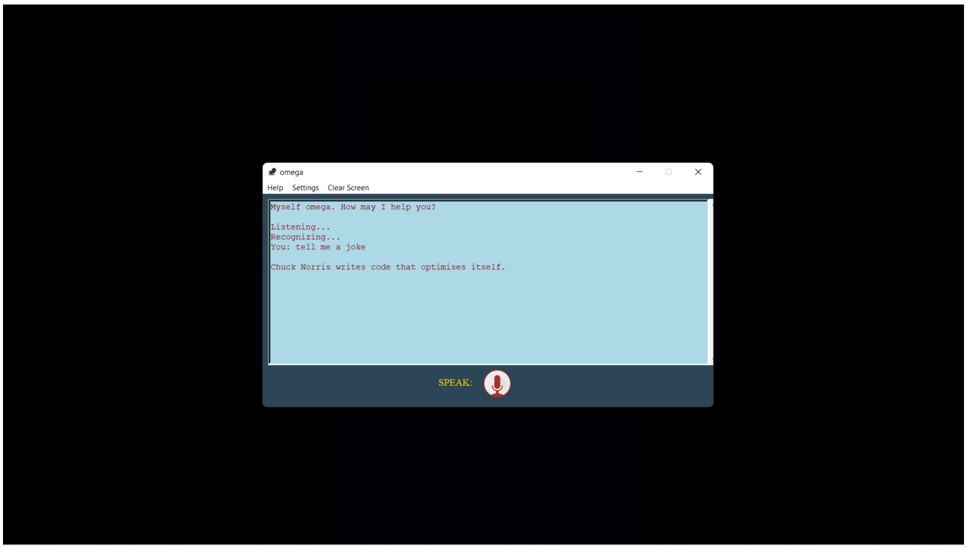
```
Myself omega. How may I help you?

Listening...
Recognizing...
You: text to speech

Opening Text to Speech mode
```

SETTINGS:


anel
Control Panel
Search Control Panel
Adjust your computer's settings
View by:
Category
System and Security
Review your computer's status
Save backup copies of your files with File History
Backup and Restore (Windows 7)
Network and Internet
View network status and tasks
Hardware and Sound
View devices and printers
Add a device
Adjust commonly used mobility settings
Programs
Uninstall a program
User Accounts
Change account type
Appearance and Personalization
Clock and Region
Change date, time, or number formats
Ease of Access
Let Windows suggest settings
Optimize visual display
omega
Help
Settings
Clear Screen
SPEAK:

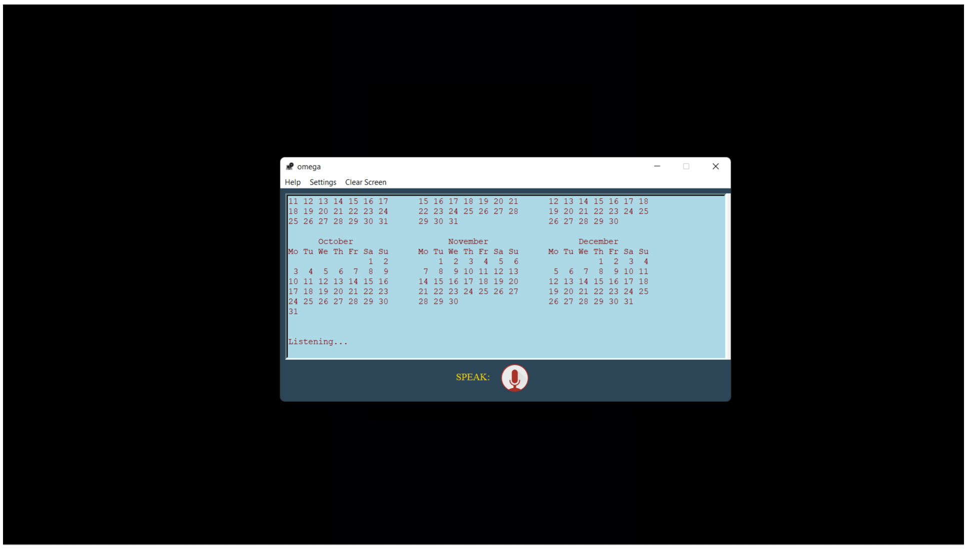
```
Myself omega. How may I help you?

Listening...
Recognizing...
You: open settings

Opening settings...
```

JOKES:



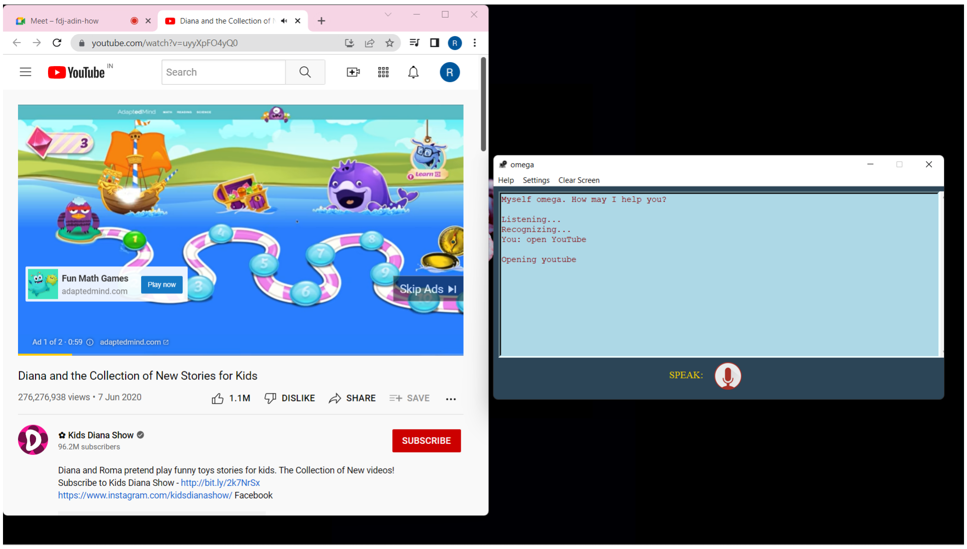
```
Myself omega. How may I help you?

Listening...
Recognizing...
You: tell me a joke

Chuck Norris writes code that optimises itself.
```

CALENDER:



```
11 12 13 14 15 16 17      15 16 17 18 19 20 21      12 13 14 15 16 17 18
18 19 20 21 22 23 24      22 23 24 25 26 27 28      19 20 21 22 23 24 25
25 26 27 28 29 30 31      29 30 31                  26 27 28 29 30

      October                   November                  December
Mo Tu We Th Fr Sa Su      Mo Tu We Th Fr Sa Su      Mo Tu We Th Fr Sa Su
                1  2          1  2  3  4  5  6                1  2  3  4
 3  4  5  6  7  8  9       7  8  9 10 11 12 13       5  6  7  8  9 10 11
10 11 12 13 14 15 16      14 15 16 17 18 19 20      12 13 14 15 16 17 18
17 18 19 20 21 22 23      21 22 23 24 25 26 27      19 20 21 22 23 24 25
24 25 26 27 28 29 30      28 29 30                  26 27 28 29 30 31
31


Listening...
```

YOUTUBE:



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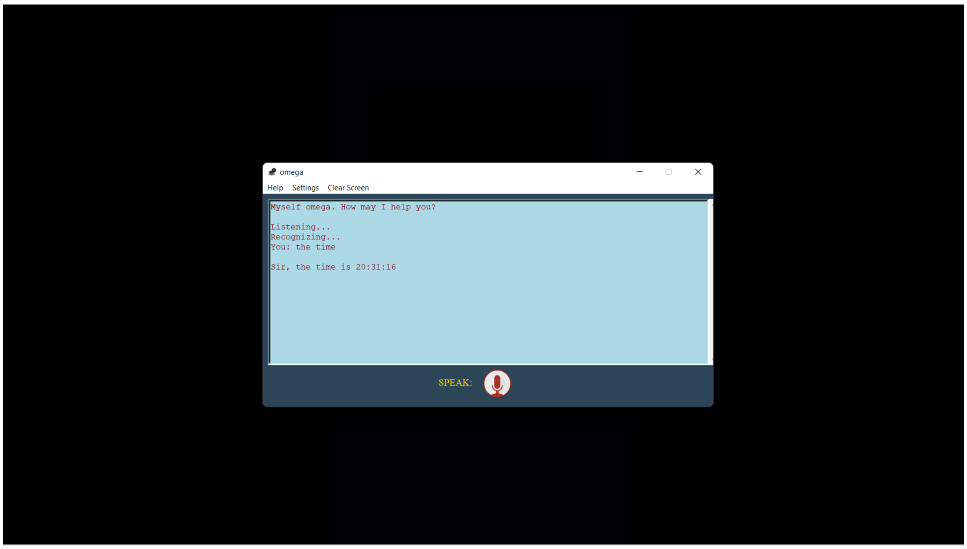
https://www.instagram.com/kidsdianashow/ Facebook

```
Myself omega. How may I help you?

Listening...
Recognizing...
You: open YouTube

Opening youtube
```

TIME:

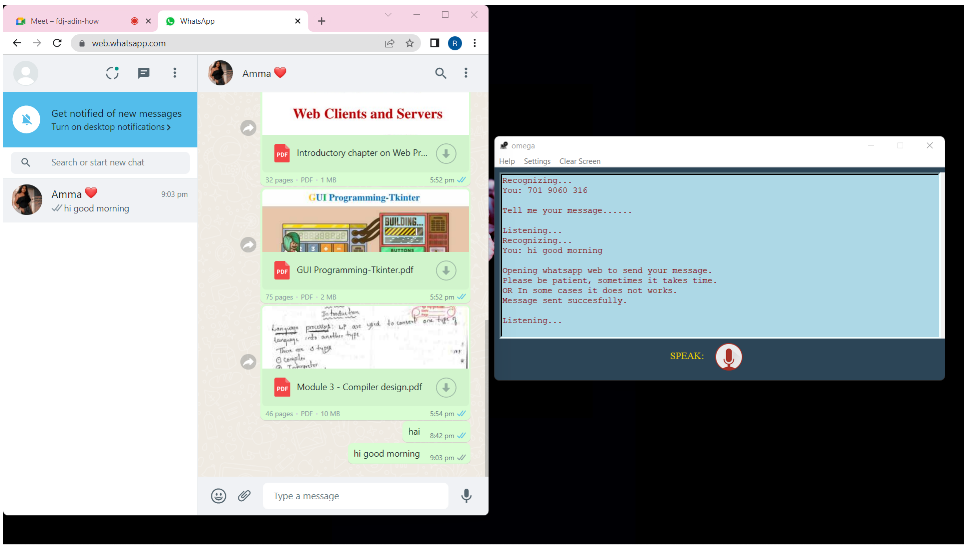


```
Myself omega. How may I help you?

Listening...
Recognizing...
You: the time

Sir, the time is 20:31:16
```

WHATS'APP:



hai 8:42 pm

hi good morning 9:03 pm

```
Recognizing...
You: 701 9060 316

Tell me your message......

Listening...
Recognizing...
You: hi good morning

Opening whatsapp web to send your message.
Please be patient, sometimes it takes time.
OR In some cases it does not works.
Message sent succesfully.

Listening...
```

Chapter 9

Source Code

```
import
datetime, wikipedia,webbrowser,os,random,requests,pyautogui,playsound,
subprocess,time
import urllib.request,bs4 as bs,sys,threading
import  Annex, wolframalpha from ttkthemes import themed_tk from
tkinter import ttk
import tkinter as tk
from tkinter import scrolledtext from PIL import ImageTk,Image
import sqlite3,pyjokes,pywhatkit from functools import partial
import getpass,calendar

try:
app-wolframalpha.Client("JPK4EE-L7KR3XWP9A")
except Exception as e:
pass

#setting chrome path
chrome_path-" C:\Program Files\Goocle\Chrome\Application\chrome.exe %s"

def there_exists(terms ,query):
for term in terms:
if term in query:
  return True

def CommandsList():
'"show the command to which voice assistant is registered with'"
os.startfile('Commands List.txt')

def clearscreen():
'" clear the scrollable text box"' SR.scrollable_text_clearing()

def greet():
```

```
#conn - sqlite3.connect(’Heisenberg.db’)
#mycursor-conn.cursor()
#hour=int(datetime.datetime.now().hour)
#if hour>and hour<12:
#mycursor.execute(’select sentences from goodmorning’)
#result-mycursor.fetchall()
#SR.speak(random.choice(result)[0])
#elif hour>-12 and hours18:
#mycursor.execute(’select sentences from goodafternoon’)
#result-mycursor.fetchall()
#SR.speak(random.choice(result)[0])
#elif hour>-18 and hour<21:
#mycursor.execute(’select sentences from goodevening’)
#result-mycursor.fetchall()
#SR.speak(random.choice(result)[()])
#conn.commit)
#conn.commit()
#else:
#mycursor.execute(’select sentences from night’)
#result-mycursor.fetchall()
#SR.speak(random.choice(result)[0])
#conn.commit()
#conn.commit()
#conn.close()
SR.speak("Myself omega. How may I help you?")
def mainframe():
"" "Logic for execution task based on query "" "
SR.scrollable_text_clearing()
greet()
query_tor_future-None
try:
while(True):
query-SR.takeCommand().lower()
#converted the command in lower case of ease of matching

#wikipedia search

if there_exists([’search wikipedia for’,’from wikipedia’],query):
SR.speak("Searching wikipedia... ")
if ’search wikipedia for’ in query:
query=query.replace(’search wikipedia for’,")
results=wikipedia.summary(query,sentences-2)
```

```
SR.speak("According to wikipedia:\n")
SR.speak(results)
elif ’from wikipedia’ in query:
query=query.replace(’from wikipedia’,")
results=wikipedia.summary(query,sentences=2)
SR.speak("According to wikipedia:\n")
SR.speak(results)
elif there_exists([’wikipedia’],query):
SR.speak("Searching wikipedia. ")
query=query.replace("wikipedia","")
results=wikipedia.summary(query,sentences=2)
SR.speak("According to wikipedia:\n")
SR.speak(results)

#whatsapp message

elif there_exists([’open whatsapp messeaging’,’send a whatsapp message’,’send whatsapp m
message’],query):
whatsapp=Annex.WhatsApp(scrollable_text)
whatsapp.send()
del whatsapp
#what is meant by
elif
there_exists([’what is meant by’,’what is mean by’],query):
results=wikipedia.summary(query,sentences-2)
SR.speak("According to wikipedia:\n")
SR.speak(results)

#taking photo

elif there_exists([’take a photo’,’take a selfie’,’take my photo’,’take
photo’,’take selfie’,’one photo please’,
’click a photo’],query):
takephoto=Annex.camera()
Location=takephoto.takePhoto()
os.startfile(Location)
del takephoto
SR.speak("Captured picture is stored in Camera folder. ")
#bluetooth file sharing
elif there_exists([’send some files through bluetooth’,’send file through
bluetooth’,’bluetooth sharing’,’bluetooth file sharing’,’open
bluetooth’],query):
SR.speak("Opening bluetooth...")
```

```
os.startfile(r"C:\Windows\System32\fsquirt.exe")
break

#play game

elif there_exists(['would like to play some games','play some games','would
like to play some game','want to play some games','want to play game','want
to play games','play games','open games','play game','open game'],query):
SR.speak("We have 2n ames right now.\n")
SR.updating_ST_No_newline('1.')
SR.speak("Stone Paper Scissor")
SR.updating_ST_No_newline('2.')
SR.speak("Snake")
SR.speak("\nTell us your choice:")
while(True):
query=SR.takeCommand().lower()
if ('stone' in query) or ('paper' in query):
SR.speak("Opening stone paper scissor...")
sps=Annex.StonePaperScissor()
sps.start(scrollable_text)
break
elif ('snake' in query):
SR.speak("Opening snake game...")
import snake1
snake1.start()
break
else:
SR.speak("It did not match the option that we have. \nPlease
say it again.")

#makig note

elif there_exists(['make a note','take note','take a note','note it
down','make note','remember this as note','open notepad and write'],query):
SR.speak("What would you like to write down?")
data-SR.takeCommand()
n=Annex.note() n.Note(data)
SR.speak("I have a made a note of that.")
break

#password generator

elif there_exists(['suggest me a password','password suggestion','i want a
password '], query):
m3=Annex.PasswordGenerator()
m3.givePSWD(scrollable_text)
del m3

#screeshot

elif there_exists(['take screenshot','take a screenshot',
'screenshotplease','capture my screen'],query):
SR.speak("Taking screenshot")
SS=Annex.screenshot()
SS.takeSS()
SR.speak('Captured screenshot is saved in Screenshots folder.')
del SS



#voice recorder

elif there_exists(['record my voice','start voice recorder',
'voice recorder'],query):
VR=Annex.VoiceRecorer()
VR.Record(scrollable_text)
del VR

#text to speech conversion

elif there_exists(['text to speech','convert my notes to voice'],
query): SR.speak("Opening Text to Speech mode")
TS-Annex.TextSpeech()
del TS

#shutting down system

elif there_exists(['exit','quit','shutdown','shut up','goodbye',
'shut down'],query): SR.speak("shutting down")
sys.exit()
elif there_exists(['none'],query):
elif there_exists(['stop the flow','stop the execution','halt',
'haltthe process','stop the process','stop listening','stop
the listening'],query):
SR.speak("Listening halted.") break
#it will give online results for the query
elif there_exists(['search something for me','to do a little
search’,’search mode’,’i want to search something’],query):
SR.speak(’What you want me to search for?’)
query=SR.takeCommand()
SR.speak(f"Showing results for (query)") try:
res=app.query(query)
SR.speak(next(res.results).text)
except:
print("Sorry, but there is a little problem while fetching the result.")
def gen(n):
for i in range(n):
yield i
class MainframeThread(threading.Thread):
def_init_(self, threadID, name):
threading.Thread._init_(self)
self.threadID=threadID
self.name=name
def run(self):
mainframe()
def Launching_thread():
Thread_ID-gen(1000)
global  MainframeThread_object
MainframeThread_object=MainframeThread(Thread_ID._next_(),"Mainframe")
MaintrameThread_object.start()

if__name__="__main__":
#tkinter code
root-themed_tk.ThemedTk()
root.set_theme("winnative")
root.geometry("{}x{}+{}".format(900,450,
int(root.winfo_screenwidth()/2 - 900/2),
int(root.winfo_screenheight()/2 - 450/2)))
root.resizab1e(0,0)
root.title("omega")
root.iconbitmap(’Heisenberg.ico’)
root.configure(bg-’#2c4557’)
scrollable_text-scrolledtext.Scro11edText(root,state-’disabled’,
height-16,width-87,re1ief-’su nken’,bd-5,wrap-tk.WORD
bg-’#add8e6’,fg-’#800000’)
scrol1ab1e_text.place(x=10,y=10)
mic_img=Image.open("Mic.png")
mic_img=mic_img.resize((55,55),Image.ANTIALIAS)
mic_img-ImageTk.PhotoImage(mic_img)
Speak_labe1=tk.Label(root,text-"SPEAK:",fg-"#FFD700",font=
"Times NewRoman" 12 ',borderwidth=0,bg='#2c4557')
Speak_labe1.place(x=350,y=365) """Setting up objects" ""
SR-Annex.SpeakRecog(scrollab1e_text)
#Speak and Recognition class instance
Listen_Button=tk.Button(root,image=mic_img,borderwidth=0,
activebackground='#2c4557',bg='#2c4557',command=Launchin_thread)
Listen_Button.place(x=440,y=350)
myMenu=tk.Menu(root)
m1=tk.Menu(myMenu,tearoff=0)
#tearoff=0 means the submenu can't be teared of fromthe window
m1.add_command(label='Commands List',command=CommandsList)
myMenu.add_cascade(label="Help",menu=ml)
stng_win=Annex.SettingWindow()

myMenu.add_cascade(label="Settings",
command=partial(stn win.settingWindow,root))
myMenu add_cascade(label="Clear Screen",command=clearScreen)
root.config(menu=myMenu)
root.mainloop()
```

Chapter 10

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