



VOICE ASSISTANT:SAASH

Submitted by

AAYUSH GARG (201500006)

in partial fulfillment for the award of the degree

of

Bachelor of Computer Application

IN

Computer Science and Engineering

**Under the Supervision of
Mohd. Aamir khan
(Technical Trainer)**

NOV- 2022

DECLARATION

I **AAYUSH GARG** hereby declare that the Project work, which is presented in the report, entitled **“VOICE ASSISTANT”** is duly prepared by me to be submitted to the department in partial fulfilment for the award of the degree of Bachelor of Computer Applications for the academic year 2022-2023.

AAYUSH GARG

Date: 21/11/2022

Place: AB-1, 307

DEPARTMENT OF BACHELOR OF COMPUTER APPLICATION
GLAUNIVERSITY, MATHURA, 281406

BONAFIDE CERTIFICATE

This is to certify that this dissertation entitled “**VOICE ASSISTANT** ” who carried out the work under my supervision. This is to further certify to the best of my knowledge that this Project Report has not been carried out earlier in this institute and university.

Signature

Mohd. Aamir khan

Signature

Aayush garg

Certify that the above mention Project Report has been duly carried out as per the norms of the college and the statutes of the university.

ACKNOWLEDGEMENT

Every Project big or small is successful largely due to the effort of a number of wonderful people who have always given their valuable advice or lent a helping hand. I sincerely appreciate the inspiration, support and guidance of all those people who have been instrumental in making this project a success.

I wish to express sense of gratitude to my guide Mohd.Aamir khan(Mentor) in Bachelor of Computer Application Department, GIA University, Mathura, to give me guidance at every moment during my entire report and giving valuable suggestions. They gives me unfailing inspirations and wholehearted co-operations in carried out my Project work. Their continuous encouragement at each workthrough our grateful acknowledged.

I am also very grateful to my classmates, for their huge co-operation and valuable suggestion from time to time during my entire Project work. I also extend my gratitude to all the members of Department , without theirs support at various stages this report will not be materialized.

AAYUSH GARG

Table of Contents

S.NO.	TITLE
1.	Abstract
2.	Introduction
3.	Architecture Diagram
4.	Propose Method
5.	Hardware and software requirement
6.	Output of project
7.	Future prospect of project
8.	Conclusion

ABSTRACT

In very recent future all the electronic devices will be worked by utilizing the remote helper which is definitely not hard to get to yet it needs weakness. This structure affirmed the clients to get to the framework by the voice orders. User can request to the assistant that anything can be done by the framework, for example Music, Open Specified Application, Open Tabs, Open Websites and so forth. Voice associates are programming specialists that can decipher human discourse and react through orchestrated voices. Clients can pose their associate's inquiries, control home gadgets and media playback by means of voice, and oversee other essential errands, for example, email, daily agendas, and schedules with verbal orders.

CHAPTER-1

INTRODUCTION

1.1 INTRODUCTION

Voice assistants are defined as the software agents which interpret or converts human speech and it responds through synchronized voices, i.e. Siri (Apple Inc.), Alexa (Amazon), Cortana (Microsoft), so forth these are most popular voice assistants.

As the technology are getting advancer day-by-day, Though We can see that the futuristic dream of talking to the computer is now comes true As, From the day the computer invented, People wanted to talk with the computer machine, It could be possible with the technology development by the dedicated and devoted computer scientists.

Several products deployed in the last few years which brings out the in-expensive use of the voice assistants to our day-to-day life, With regard to the time more features and platforms are being added and gets updated from time to time.

Intelligent Personal Assistant, Automated Personal Assistant or Automated Virtual Personal Assistant can perform tasks, or services on behalf of an individual based on a combination of user input, and location awareness. It has the ability to access information from a variety of online sources such as weather conditions, traffic congestion, news, stock prices, user schedules, and retail prices.

Intelligent Personal Assistants features include calendar and Meeting Reminder, Automation, Natural Conversation, Recommending, Smarter Learning and Integration.

Voice Assistants can make calls, send text messages, look things up online, provide directions, open apps, set appointments on our calendars, and initiate or complete many other tasks. With the addition of separate apps on the phone, our voice can be a type of remote control for our lives.

1.2 MODULES AND DESCRIPTION

- **SPEECH TO TEXT:** In this module or layer a speech is to be converted into the text, Which can be understandable by the system through the installed libraries.
- **TEXT ANALYSING:** It converts the text for the system, it analyze and then make it into the readable form. Though, Computer understands the command, so virtual assistants like Siri, Cortona so forth converts the text to computer commands.
- **INTERPRET COMMANDS:** In this layer, mapped PC sends requests to the server through the web. At the same time, as the discourse assessed locally. A nearby recognizer speaks with the server to decide whether the order will be ideal to deal with locally or not. For example Play Music, Restaurant Reservation, Movie Review and so forth.

CHAPTER-2

ARCHITECTURE DIAGRAMS

System Architecture Design divided into two phases i.e. Face Detection and Voice Recognition

4.1 SYSTEM ARCHITECTURE DESIGN

Voice Recognition:

Personal Assistant consists of various modules services, but the salient feature of the assistant is that Voice Recognition can function without active internet.

Flow Chart of the Voice Recognition:

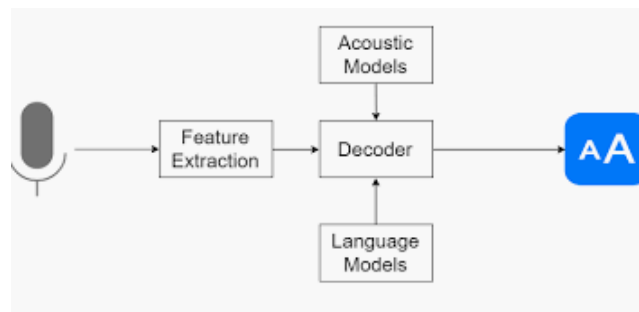


Fig.2 Flow-Chart of Voice Recognition

CHAPTER-3

PROPOSED METHOD

ALGORITHM USED:

Algorithm:

Voice Recognition: Python Speech Recognition Module

This algorithmic program are the modules or the packages for the recognizing the voice.

1. *“sudo pip install SpeechRecognition”*
PyAudio(For Linux Users)
2. *“sudo apt-get install python-pyaudio python3-pyaudio”*
PyAudio(For Windows User)
3. *“ pip install pyaudio”*
4. *“pip install pyjoke”*
5. *“pip install winshell”*
6. *“pip install wikipedia”*
7. *“pip installSubprocess”*

Implementation:

Datetime: In python this module supplies classes to work with date and time. And helps to deal with the dates, times, and time intervals.

- **Speech_Recognition:-** Since we're building an Application of voice assistant, one of the most important things in this is that your assistant recognizes your voice (means what you want to say/ ask). To install this module type the below command in the terminal.
pip install SpeechRecognition
X

Wikipedia:- As we all know Wikipedia is a great source of knowledge just like GeeksforGeeks we have used the Wikipedia module to get information from Wikipedia or to perform a Wikipedia search. To install this module type the below command in the terminal. pip install wikipedia
.

Winshell: The winshell module is a light wrapper around the Windows shell functionality. It includes convenience functions for accessing special folders, for using the shell's file copy, rename & delete functionality, and a certain amount of support for structured storage.

Ranom: This module implements pseudo-random number generators for various distributions. For integers, there is uniform selection from a range.

Subprocess: This module allows spawning new processes, Which connect to their onput/output/errors and obtain their return codes. This module used to replace several older functions and modules as well.

Web_browser:- To perform Web Search. This module comes built-in with Python

OS: This module provides a way of using operating system dependent functionality. OS module allows us to interface with the underlying operating system that on python runs.

ADVANTAGES

- It helps to save the time by assigning the tasks, also can assign the tasks repeatedly.
- Helps to deal with daily routine, For Example: By assigning the task for ringing the alarm at certain time, also can schedule the appointment and so forth.
- It makes the work faster easier and in the efficient manner.

DISADVANTAGES

- Language issue may arise.
- Strong risk of downtime
- May sometime cause network glitches

APPLICATIONS

- VOICE Assistant can be used int the day-to-day routine which can save the time.
- Saves Time by Automating Repetitive Tasks.

CHAPTER-6

HARDWARE AND SOFTWARE REQUIREMENTS

HARDWARE REQUIREMENTS:

- i3 Processor(Or More) required.
- 4GB(Or More) required.
- Monitor.

SOFTWARE REQUIREMENTS:

- Windows7(Or Higher Config.) required.
- VS-CODE
- Active Internet Connection.
- Python3.0
- Installed Python libraries

CHAPTER-7

OUTPUT OF THE PROJECT

Here is the output result of the following desktop assistant.

Voice Recognition:

In this phase an user speaks to the voice assistant, It recognize the voice command encode it and answers to the user.

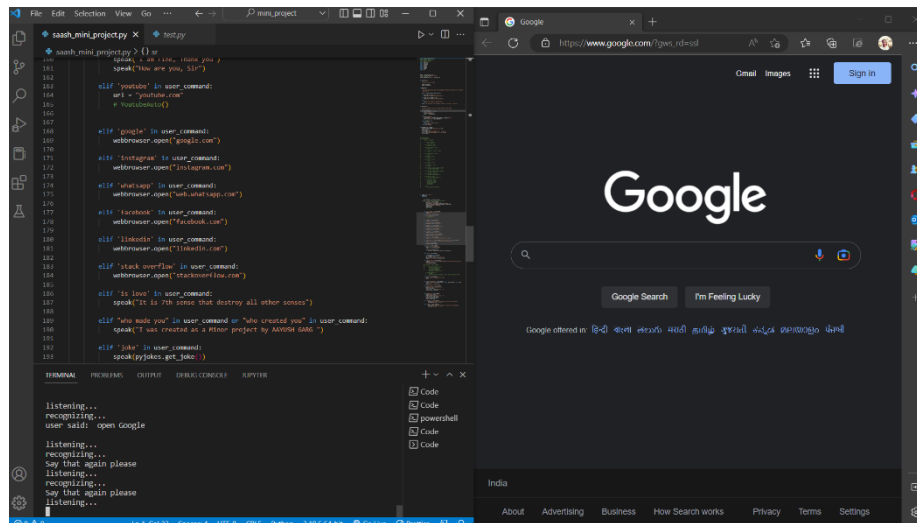


Fig.3 Desktop Assistant (Voice Recognition)
(Command: open Google)

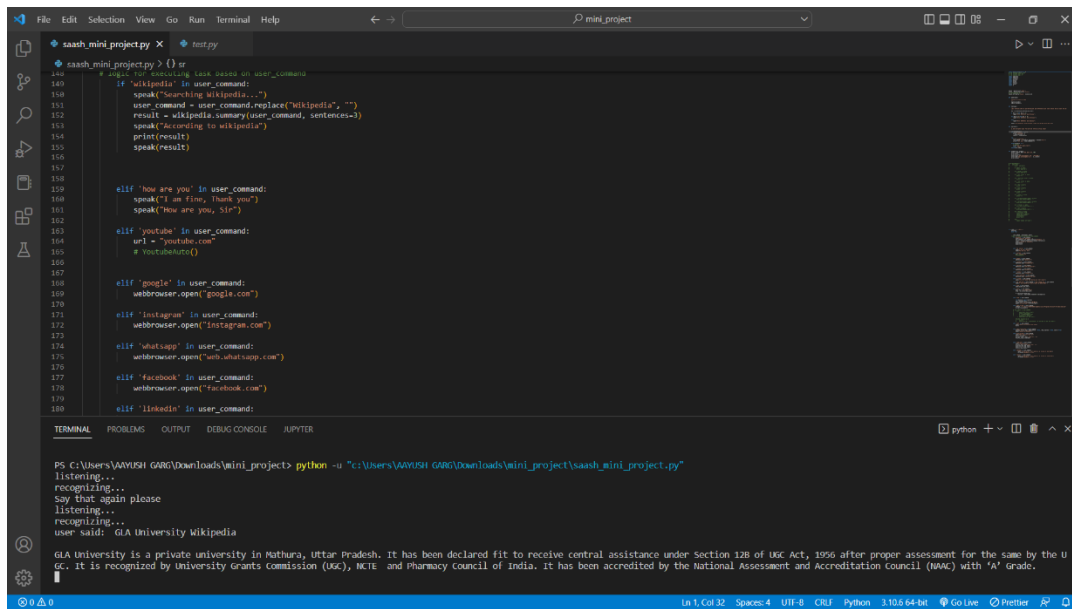
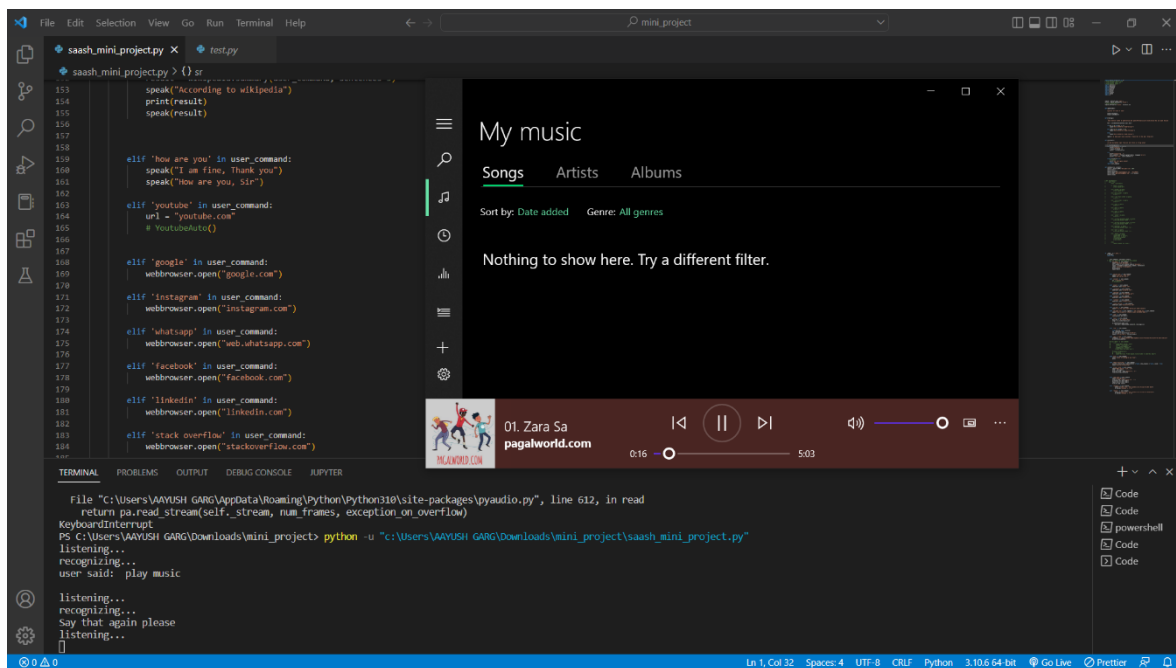


Fig.4 (Command: GLA UNIVERSITY Wikipedia)

Fig.5 (Command: Open Music System)



CHAPTER-8

FUTURE PROSPECTS OF THE PROJECT

8. FUTURE PROSPECTS

How rapidly the time changed? If we look back around twenty year ago, Voice Recognition was in its infant stage. As when the computer system came into the existence, It was the dream to fully fledged interaction with the computer machine. Now, we can eventually talk, ask and as well order to do the assigned task.

This technology advancement is taking the world to the next level. If we think about the future competence of the voice recognition as well as the face detection, It can help the security agencies which may help to verify the details of the criminal and so forth. If we compare, two decades ago our words may very carried as we could have imagined.

CONCLUSION

Voice Assistant has various functions as like of mobile phone like managing various applications on the voice commands. It helps to access the system hands-free and to get rid of typing chaos.

they are incredibly helpful. For now, most of us use voice assistants for simple tasks like playing music, creating shopping lists, turning on and off various intelligent devices in our homes, learning about weather

