Desktop Voice Assistant

1. Introduction :

Virtual Assistants are software program that help you easier day to day tasks such as showing weather report, creating reminders, making shopping list etc. They can take commands via text (online chat bots) or by voice.

Voice based intelligent assistants needs an invoking word or wake word to activate the listener, followed by the command. Virtual assistants can tremendously save your time. We spend hours in online research and then making the report in our terms of understanding. Jarvis can do that for us.

2. Objective :

Main objective of building personal assistant software 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 user may have.

One of the main advantages of voice search is in their rapidity. In fact, voice is reputed to be four times faster than a return search: whereas we can write about 40 words per minute

3. Purpose, Scope, Applicability :

Purpose of virtual assistant is to being capable of voice interaction and real time information.

Voice assistants will continue to offer more individualized experiences as they get better at differentiating between voices.

The mass adoption of artificial intelligence in users' everyday lives is also fueling the shift towards voice.

4. Requirement and Analysis :

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. the functions and interrelation of the modules.

5. Modules :

PyAudio	Random	Wikipedia
PyOWM	cv2	Webbrowser
Pyttsx3	winshell	OS
Smtplib	Sys	Speech Recognition
Joke	Datatime	wolframalp

6. Working :

The proposed plan started by providing voice input to the voice assistant by the user through microphone which later processed and analyzed by voice assistant.

The voice input can be anything like getting any information, operation on computer's internal files etc.

Speech recognition has been used to convert the voice input into text. Then this text is then passed through the central processor which analyses the purpose of the command and calls the required script for execution.

Even though there are hundreds of inputs have been provided to the program, but the complexities don't stop here.

Other factors like Background noises, same kind of voices can also play huge role in not understanding the voice inputs by the voice assistant. the main reason behind is that it does not have the ability to distinguish the unwanted sounds it hears.

7. System Design :