Mini Project

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On

Iron man Jarvis AI Desktop Voice Assistant

Synopsis

Institute of Engineering & Technology

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Introduction

As we know Python is a suitable language for script writers and developers. Let's write a script for Personal Voice Assistant using Python. The query for the assistant can be manipulated as per the user's need.

The implemented assistant can open up the application (if it's installed in the system), search Google, Wikipedia and YouTube about the query, calculate any mathematical question, etc by just giving the voice command. We can process the data as per the need or can add the functionality, depends upon how we code things.

We are using Google speech recognition API and google text to speech for voice input and output respectively.

Also, for calculating mathematical expression WolframAlpha API can be used.

Playsound Package is used to play the saved mp3 sound from the system.

About the project

Building a desktop voice assistant which will perform the task whatever the instructions given to it.

A voice assistant or intelligent personal assistant is a software agent that can perform tasks or services for an individual based on verbal commands i.e. by interpreting human speech and respond via synthesized voices. Users can ask their assistants' questions, control home automation devices, and media playback via voice, and manage other basic tasks such as email, to-do lists, open or close any application etc with verbal commands. Voice assistants come in somewhat small packages and can perform a variety of actions after hearing your command. They can turn on lights, answer questions, play music, place online orders and do all kinds of AI-based stuff.

Voice assistants are not to be confused with virtual assistants, which are people who work remotely and can, therefore, handle all kinds of tasks. Rather, voice assistants are technology based. As voice assistants become more robust, their utility in both the personal and business realms will grow as well.

Motivation

Who doesn't want to have the luxury to own an assistant who always listens for your call, anticipates your every need, and takes action when necessary? That luxury is now available thanks to artificial intelligence-based voice assistants.

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System Requirements

- **Hardware Requirements Specification**

  Processor : Intel Pentium III or later

  Main Memory(RAM) : 4 GB

  Cache Memory : 512 KB

  Monitor : 14 inch Color Monitor

  Keyboard : 108 Keys

  Mouse : Optical Mouse

- **Software Requirements Specification**

  Technology:Python3 , Different Libraries

  Platform: Visual Studio/ JupyterNotebook

  Operating System : Windows 7, 8, 9, 10, XP

Future Scope

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- Compatibility and Integration
- Search Behaviours Will Change
- Voice Push Notifications
- Security Will Be a Focus
- Touch Interaction

References

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