SYNOPSIS
ON

VIST
The Voice Assistant App

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INTRODUCTION

Today's world is full of technology and innovation. This century has lead human to change the way they do things. Things or work have grown and become easier with help of machines like Computer. With the advancement of technology in this world we have come into an era of automation and speech recognition by computer. This is only possible because of the advancement in research and innovation in the field of computer science. One of the main part of this generations improvement over the over can be said to be an Intelligent Virtual Assistant or the IVA.

An **intelligent virtual assistant** (**IVA**) or **intelligent personal assistant** (**IPA**) is a software agent that can perform tasks or services for an individual based on commands or questions. The term "Chabot" is sometimes used to refer to virtual assistants generally or specifically accessed by online chat. In some cases, online chat programs are exclusively for entertainment purposes. Some virtual assistants are able to interpret 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, and calendars with verbal commands. A similar concept, however with differences, lays under the dialogue systems.

I am here developing an intelligent virtual assistant that has all the basic functionality that it can perform or do. This virtual assistant will run on a windows machine. It can do is to listen to users and follow on with their commands like searching someone/something on Wikipedia, googling about somebody, playing music, etc.

USE OF THE PROJECT

This Application as described is very useful for people who want to things to work verbally or on their commands or action of speaking mostly.

To all the people who are tech enthusiast and have a keen desire of making and using or testing new products my application will be a perfect fit for their usage.
Also the target audience includes mostly everyone who understand the basic operation of a computer system.

It will provide suitable results upon being asked or triggered to be operated during its execution.

It also wishes the users upon its trigger according to the time of the day following upon it asks the user what he/she shall want from VIST.

It provides all the basic functionalities that an intelligent virtual assistant in this era should have and is must.

PROJECT ON GITHUB @

https://github.com/Mishra-Shubh/Voice-Assistant

FEASIBILITY OF THE PROJECT

As for technical needs, it is critical to ensure that the proposed device would be accessible to a broad range of people. Therefore, it is being compatible with Windows Operating System.

Strengths

- It lets user search for its own query by speaking or commanding the application.
- Ease of use by any general computer operating person.
- Lightweight takes in less space on the disk.
- Less competing market, as we only have Cortana for Windows.

Weakness

One may note other assistants, for example Cortana, which is present in the market have better features but this application lags in some but is in the future scope to be improved upon.

FUNCTIONAL SPECIFICATION

- **Wishing the User**

  The application has the welcome functionality that whenever the user opens it will greet the user according to the time of the day first. Using the speak function

- **Listen to the human voice based command**

  The application there starts on to listen to the human voice through the microphone.

- **Recognizing the human voice based command**

This application will upon listening the input will use the speech recognition and convert the voice into digital/computer readable format for future execution of the command

- **Assistant- Speaking**

This function will reply the user with the suitable output through the speaker which internally using the native text to speech engine on the background.

- **Command based Actions**

The key purpose of this application mainly comes into picture here when we command detected by the user is taken to its final stages by communicating with the operating to open or to allow certain task into it. Like searching a person into Wikipedia, playing music offline, googling something, emailing someone, etc.

SOFTWARE SPECIFICATION:

• Technology Implemented: Speech Recognition Tool and Built in Python Engines

• Language Used: Python

• Development Environment : Visual Studio Code, IntelliJ IDEA Pycharm ,GIT VCS

• Web Browser: Chrome, Brave, Firefox, Safari, Edge

HARDWARE REQUIREMENTS:

Processor: intel i3 or higher
Operating System: Windows 7/8/10/11
RAM: 4 GB or higher
Hard disk: 64 GB
Hardware Devices: Computer System

FUTURE SCOPE

Since this is the first build of our application. It might too a bit incomplete compared to the competition in the assistant application category but it gets all the basic functions of the application gets done with ease. We will definitely improve this app as in coming future.

Improvements needed:

1.Make an intuitive and interactive GUI for the application.

2. Improving the listening response accuracy and time.

3.Manage all with a separate module.

4. Make our App Fast and reliable.

5.Support for other operating systems like Linux.