Project Report

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A virtual Assistant

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Abstract

In today's era almost all tasks are digitalized. These days we aren't even using fingers. We just speak of the task and it is done. Virtual Assistants are software programs that help you easy your day to day tasks, such as play music, take notes, opening apps, playing music through youtube, open google, calculate some basic math, search person in wikipedia, telling jokes etc. This system is designed to be used efficiently on desktops.

1 Introduction

A virtual assistant, also called an AI assistant or digital assistant, is an application program that understands natural language voice commands and completes tasks for the user. Virtual assistant is an awesome thing. If you want your machine to run on your command like Google Assistant, Apple's Siri, Amazon's Alexa and Microsoft's Cortana. Yes it is possible. It is possible using Python. Python offers a good major library so that we can use it for making a virtual assistant. And we did it, we made our virtual assistant **BOB**. We name it BOB.Who can make easy your daily works and make your day better.

2 Keywords

Virtual Assistant Using Python, AI, API, Digital assistance, Virtual Assistance, Python.

3 Features

Our virtual assistant will able to do the followings things-

Greetings- Bob can wish you good morning/ good afternoon/good evening by determining the time.

Calculate some basic math- We get a WolframAlpha API. With this API Bob can calculate some basic math. Bo can do addition, subtraction, multiplication, division, value of sin/cos/tan and so on.

Answer some question- By using WolframAlpha API Bob can answer some expert lavel answer.

Take photo- With ecapture BOB can capture photo and save it to the main folder.

Write show notes- through command Bob can write down some notes and save it to the main folder and also BOB can show the note.

Launch Windows Applications- Bob can Launch various Windows Applications.

Open Websites- Bob can open website like youtube,google,wikipedia etc.

Subprocess- With the subprocess module Bob can restsrt,hibernet,shutdown,lock window.

Play Music- It you want tell Bob to play music, just command play 'song name', it will take you to youtube nad play the song which you wanted.

Tell jokes- Bob can tell jokes if you want to hear. it generate some random jokes.

This are the main feature of our virtual assistant Bob. There are also some silly question and answer we put on Bob's function. You can interact with your laptop's microphone/console. The response generated by the assistant will display on the console or as a speech via the speaker.

4 We are used

- python
- pycharm IDE
- Windows 11.

5 Modules

- Subprocess:- This module is used to get system subprocess details used in various commands i.e Shutdown, Sleep, etc. This module comes built-in with Python.
- WolframAlpha:- It is used to compute expert-level answers using Wolfram's algorithms, knowledgebase and AI technology.
- Pyttsx3:- This module is used for the conversion of text to speech in a program it works offline.
- Wikipedia:- As we all know Wikipedia is a great source of knowledge. we have used the Wikipedia module to get information from Wikipedia or to perform a Wikipedia search.
- 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).
- Web browser:- To perform Web Search. This module comes built-in with Python.
- Ecapture:- To capture images from your Camera.
- Pyjokes:- Pyjokes is used for the collection of Python Jokes over the Internet.
- Datetime:- Date and Time are used to showing Date and Time. This module comes built-in with Python.
- Requests: Requests is used for making GET and POST requests.
- BeautifulSoup: Beautiful Soup is a library that makes it easy to scrape information from web pages.

6 Benefits of personal Assistant

- Improved Customer Engagement
- Advanced Search Capabilities
- Saves Time by Automating Repetitive Tasks
- Aids Hand-free Operation
- improve meeting experiences

- Smart Working Environment
- increase productivity
- it can automate tasks and streamline workflows

7 Future work

A Virtual Assistant is here to light up the future and make our life proficiently useful. Possibly in no time, we will see vehicles that are driven with no driver. In future we will work on to improve the accuracy label of our virtual assistant Bob. Some time it can't recognize what is a user tell.Adding more feature would be good for Bob to make more efficient. We will make one Bob for one Person. Every person could have there own bob. We will make a robot Bob to help people in there daily task.

8 Conclusion

AI Voice Technology is undoubtedly the next big thing! Businesses are transitioning to AI voice bots at a greater rate than before. The project will built using open source software modules with PyCharm community. It is greeting the user the way the user feels more comfortable and feels free to interact with the voice assistant. Ask it questions, Tell it to do things. It's your own personal Assistant always ready to help whenever you need it.

References

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