Project Proposal

STATE UNIVERSITY OF BANGLADESH

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 ease your day to day tasks, suchas showing weather report, creating reminders, opening apps, playing music, 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 Jarvis did for Tony. 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. We all know what is Virtual Assistant. We have so many virtual assistants, such as Google Assistant, Apple's Siri, Amazon's Alexa and Microsoft's Cortana.

2 Keywords

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

3 What we are building

Our virtual assistant will able to do the followings things- Weather forecasting, Launch Games, Launch Windows Applications, Open Websites, shut down, jokes tells you about almost everything you ask, tells you date and time, greetings, news, etc. 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 Prerequisites

- python
- pycharm community
- Windows 7,8,10, Linux, MacOs.

5 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

6 Algorithms

- 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.
- Tkinter:- This module is used for building GUI and comes inbuilt with Python. This module comes built-in with Python.
- 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.

7 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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