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DGCT-JARVIS Voice Assistant

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Introduction

- "JARVIS" is a Virtual Assistant technology based on Artificial Intelligence.
- This software program use device's microphone to receive voice requests and processing on it, and send response via speaker.
- It is a combination of different technologies like voice recognition, language processing, voice analysis.
- This software program is developed using python language and its modules.

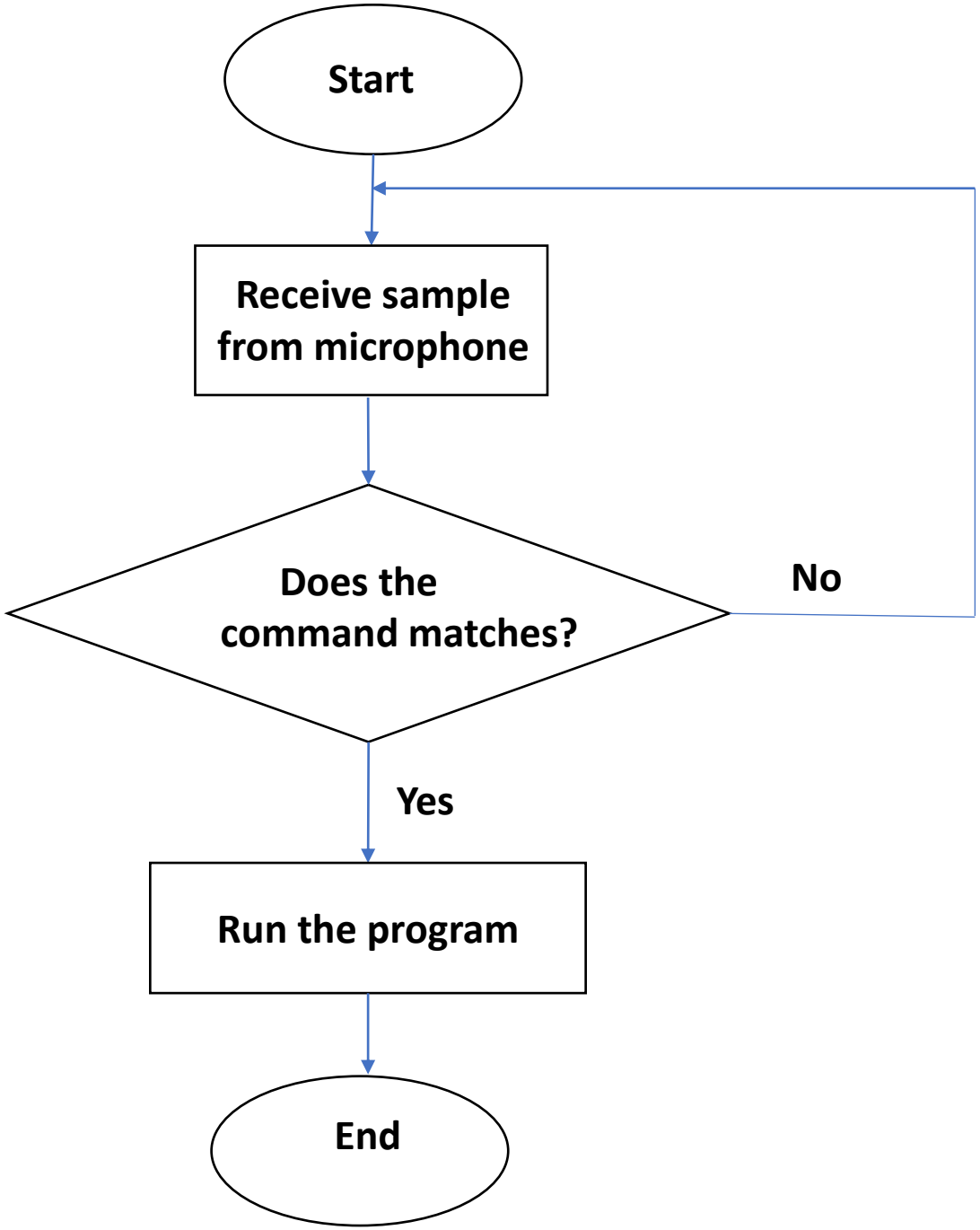
Problem/Solution

Problem : TYPING

This project is implemented by keeping those people in mind who face problem with typing or who are not able to type.

Solution: This project will help above discussed people by just taking the command in voice format and letting them to perform hands-free operations on a smart device i.e. speaker.

Flow chart :


Start
Receive sample from microphone
Does the command matches?
No
Yes
Run the program
End

How It Works?

- User ask Assistance to perform the task.
- The natural language audio single is converted into digital data that can be analyzed by the software.
- Compared with a database of software using an innovative algorithm to find a suitable answer.
- This database located on distributed servers cloud networks.
- For this reason , it must have a reliable internet connection.

Working Methodology

- Already developed code.
- Match the input command with code command.
- Follow the instruction according to code.
- Gives output.

```
if 'play' in command:
    song = command.replace('play', ‘ ')
    talk('playing ' + song)
    pywhatkit.playonyt(song)
```

Virtual library requirements

- SpeechRecognition: pip install SpeechRecognition.
- pyttsx3: pip install pyttsx3.
- Pywhatkit: pip install pywhatkit
- Wikipedia: pip install Wikipedia.
- Pyaudio: pip install PyAudio.
- Datetime: pip install DateTime.
- Pyjokes: pip install pyjokes.
- Calendar: pip install calendar.
- Webbrowser: default etc.

Features

- Easily configured to perform many of regular tasks by simple giving voice commands.
- Voice based search that is a boon for many like senior citizens who are not comfortable with keypad/keyboard.
- Able to take input in voice.
- Requires less consumption of time.
- Lower operational costs.
- Open different windows softwares ,based on voice input .

Limitations

- Not good in noisy place
- A user has to speak much louder and slower than their normal speed and volume
- Low accuracy
- Security is somewhere an issue,there is no voice command encryption in this project.
- JARVIS cannot be called externally anytime like other voice assistant.

Future plans and scope

Future plans

- Make JARVIS to learn more on its own and develop a new skill itself.
- JARVIS android app can also be developed.
- Voice commands can be encrypted to maintain security .

Scope

- Children
- Senior citizens
- Physically disable people

Conclusion

- ✓This presentation is blue print of “JARVIS” virtual assistant. In this project we discussed about how what is this software and how it performed.
- ✓With respect to less cost and less disadvantages we will say that, this system can be have good future .
- ✓We also saw the how artificial intelligence is the future of the upcoming modern world.

THANKYOU...!

ANY QUERY?