

VOICE ASSISTANT IN MARATHI FOR LAPTOP

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ABSTRACT

This desktop voice assistant initiative leverages Python's AI capabilities to offer an interactive experience through vocal interactions. The endeavor encompasses crafting a voice assistant rooted in Python that is adept at executing an array of functions such as activating alarms, providing meteorological updates, dispatching electronic mails, streaming melodies, among others. Engineered for optimal intuitiveness and accessibility, the assistant boasts a streamlined interface that facilitates seamless communication via spoken language instructions. The project harnesses AI-driven voice recognition technologies, ensuring precise comprehension and execution of user directives.

Keywords: Voice, Assistant, Static, Text, Speech.

I. INTRODUCTION

In an era where efficiency is paramount, the advent of intelligent home automation and IoT devices has sparked a demand for solutions that streamline everyday activities. Addressing this need, virtual assistants have emerged as AI-driven facilitators, enabling users to orchestrate their tasks and manage smart devices through conversational language. This project introduces a desktop voice assistant built on Python, designed to enhance user interaction with their computers in a frictionless and effective manner.

The system is crafted using a variety of Python libraries, encompassing speech recognition, natural language processing, and text-to-speech modules, to forge a virtual assistant that is both reactive and approachable. Interaction with the assistant is voice-driven, empowering users to accomplish tasks such as scheduling reminders, web searching, audio playback, and email composition effortlessly.

It requires activation phrases to engage its listening feature, followed by the user's instructions. This voice assistant is tailored for optimal use across all user demographics, enhancing productivity by handling routine tasks and fetching online information. Historically, 'virtual assistants' referred to web-based service providers; however, today's voice assistants are distinct, focusing on three core functions: converting text to speech, interpreting text for intent, and translating intent into action. Our voice assistant is under continuous development to expand its capabilities.

II. METHODOLOGY

The methodology encompasses several key steps to develop and evaluate the Voice assistant in marathi for pc:

- 1. Open the Code:** Open the code in your preferred Python IDE (like PyCharm, VS Code, or Jupyter Notebook).
- 2. Install Dependencies:** Make sure you have all the required libraries installed. Use the command mentioned below to install any Missing libraries.
pip install gtts pyautogui SpeechRecognition Wikipedia requests.
- 3. Set Up Microphone:** Ensure your computer's microphone is working and properly configured. The assistant will listen to your voice commands.
- 4. Run the Code:** Run the code step by step
- 5. Wait for Initialization:** After running the script, wait for 3 seconds. The assistant will greet you based on the time of day.
- 6. Using the Virtual Assistant:** Once the assistant is running, you can use it by speaking commands.:

III. MODELING AND ANALYSIS

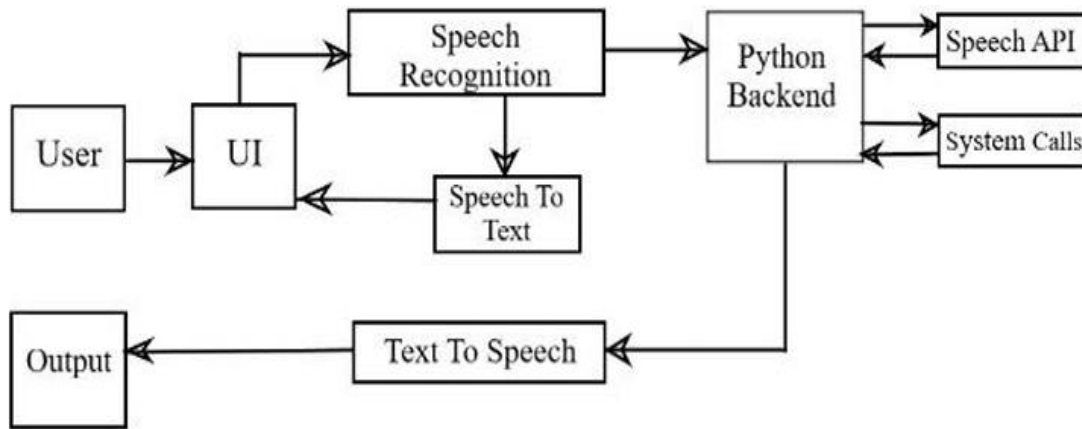
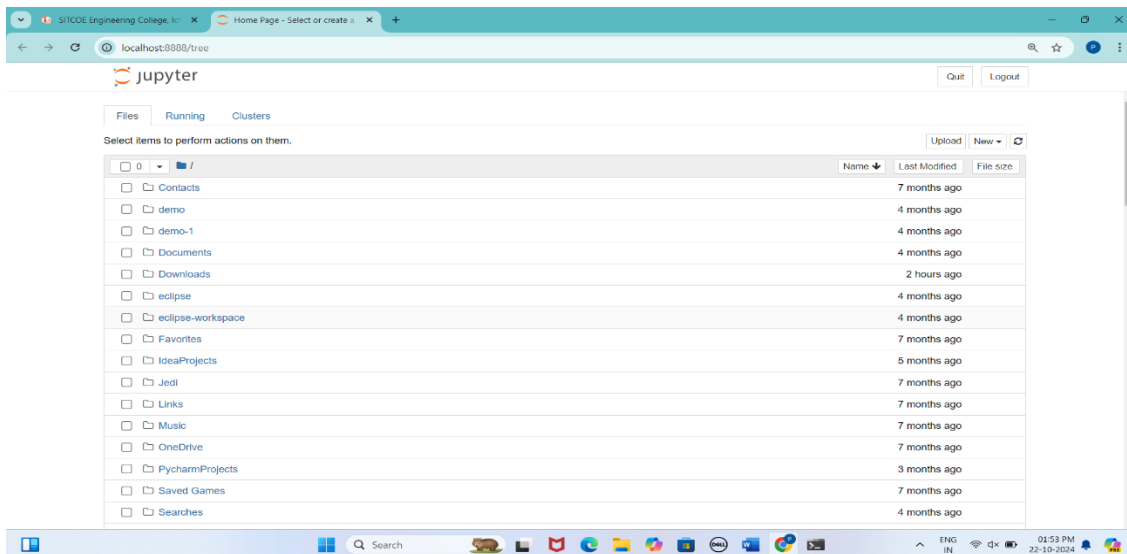


Figure 1: Architectural Diagram.

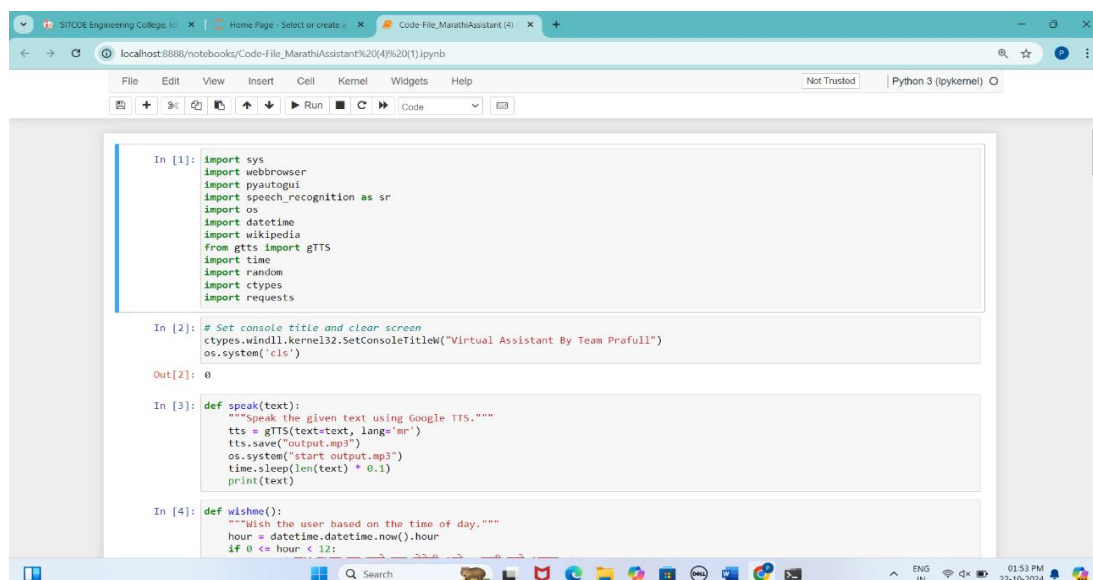
Above System Architecture defines the overall working process of Voice assistant in Marathi for laptop.

IV. RESULTS AND DISCUSSION

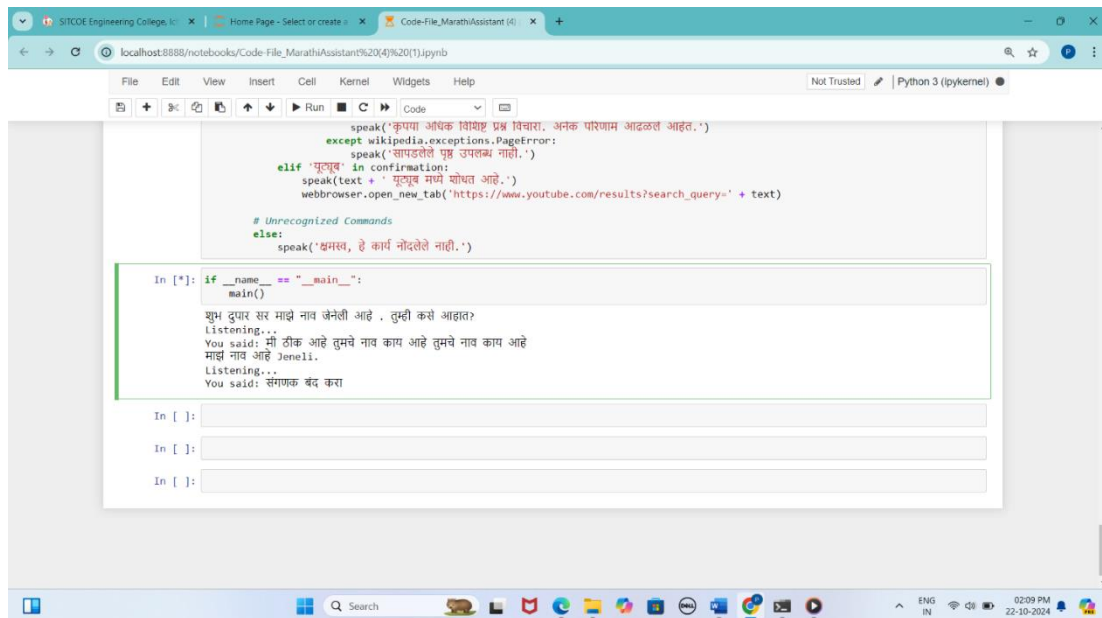
1) Open the Jupyter Notebook



2) Open Code-File_MarathiAssistant



3) Run the code step-by-step And Give the Commands in Marathi Language

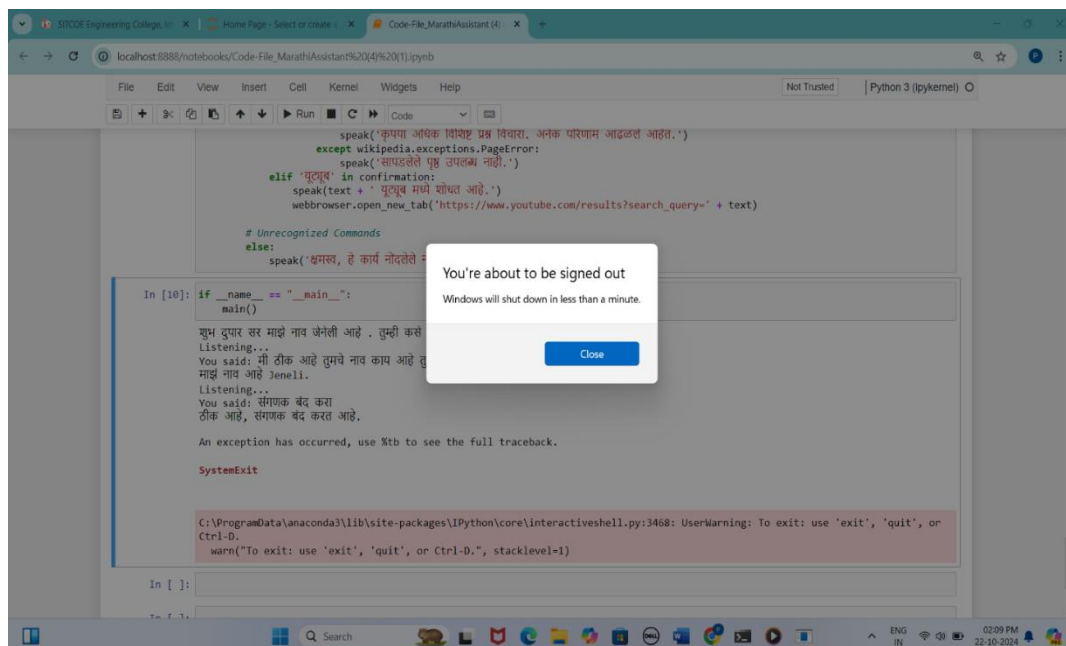


```
 speak('कृपया अधिक विशेष प्रश्न विचारा. अनेक परिणाम आढळत आहेत.')
 except wikipedia.exceptions.PageError:
     speak('सापडलेले पृष्ठ उपलब्ध नाही.')
 elif 'पुस्तक' in confirmation:
     speak(text + ' पुस्तक मध्ये पोषित आहे.')
     webbrowser.open_new_tab('https://www.youtube.com/results?search_query=' + text)
 # Unrecognized Commands
 else:
     speak('क्षमस्व, हे कार्य नोंदलेले नाही.')

In [*]: if __name__ == "__main__":
        main()
शुभ दुपार सर माझे नाव जेनेली आहे . तुम्ही कसे आहात?
Listening...
You said: मी टीक आहे तुमचे नाव काय आहे तुमचे नाव काय आहे
माझे नाव आहे Jeneli.
Listening...
You said: संगणक बंद करा

In [ ]:
In [ ]:
In [ ]:
```

4) See the Result



```
 speak('कृपया अधिक विशेष प्रश्न विचारा. अनेक परिणाम आढळत आहेत.')
 except wikipedia.exceptions.PageError:
     speak('सापडलेले पृष्ठ उपलब्ध नाही.')
 elif 'पुस्तक' in confirmation:
     speak(text + ' पुस्तक मध्ये पोषित आहे.')
     webbrowser.open_new_tab('https://www.youtube.com/results?search_query=' + text)
 # Unrecognized Commands
 else:
     speak('क्षमस्व, हे कार्य नोंदलेले नाही.')

In [10]: if __name__ == "__main__":
         main()
शुभ दुपार सर माझे नाव जेनेली आहे . तुम्ही कसे
Listening...
You said: मी टीक आहे तुमचे नाव काय आहे तु
माझे नाव आहे Jeneli.
Listening...
You said: संगणक बंद करा
टीक आहे, संगणक बंद करत आहे.

An exception has occurred, use %tb to see the full traceback.

SystemExit

C:\ProgramData\anaconda3\lib\site-packages\IPython\core\interactiveshell.py:3468: UserWarning: To exit: use 'exit', 'quit', or
Ctrl-D.
warn("To exit: use 'exit', 'quit', or Ctrl-D.", stacklevel=1)

In [ ]:
In [ ]:
```

V. CONCLUSION

In summary, making the Voice Assistant in Marathi for laptop was a big effort to make computer use better with new tech. Using Electron JS and Python, the project made a voice assistant that can do voice, face, and emotion recognition, control system apps, do basic tasks, and support artificial intelligence. By following a plan that involved finding needs, doing tech research, designing, making, testing, and writing stuff down, the project did what it set out to do by giving users a smooth and easy time. In the future, the Voice Assistant application has vast potential for further advancements and applications across multiple domains. It could understand language better, do more things, and work with new tech. Overall, the Voice Helper project is a big step forward in how people and computers work together, making it easier and more personal to use computers.

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VI. REFERENCES

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