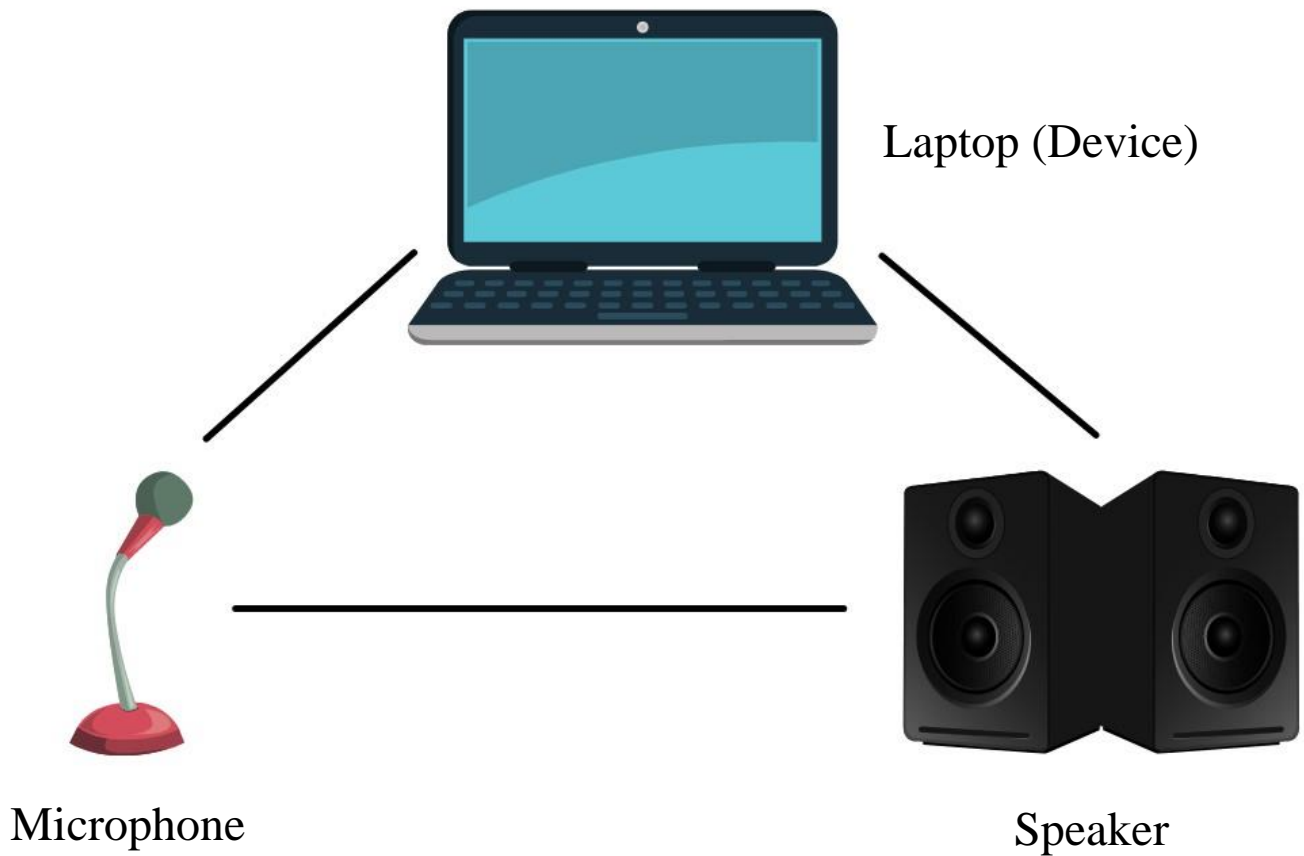


Material and Device

For build any Voice based assistant I need three main function Computer or laptop for Creating, Microphone for input and speaker for output. This is list for my Omega (virtual assistant) what I used.

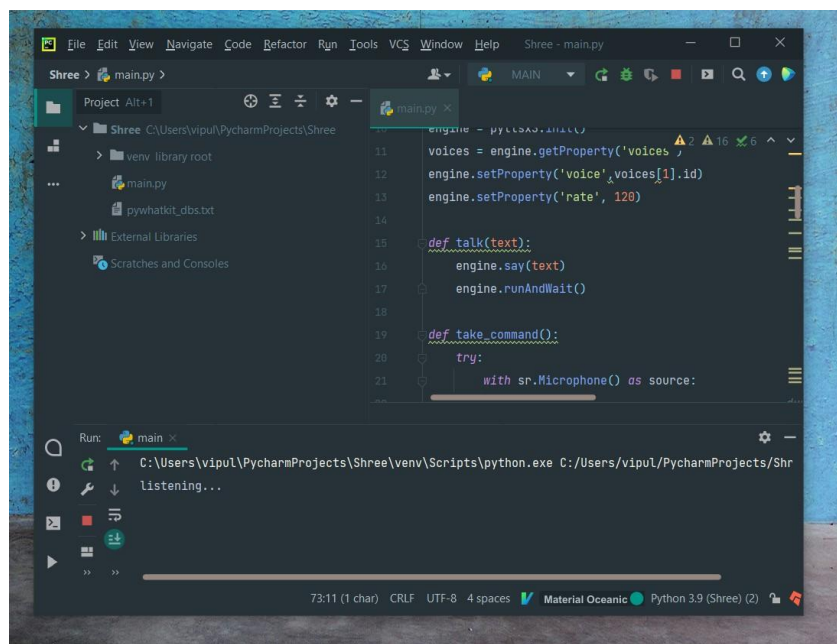


Design

Software

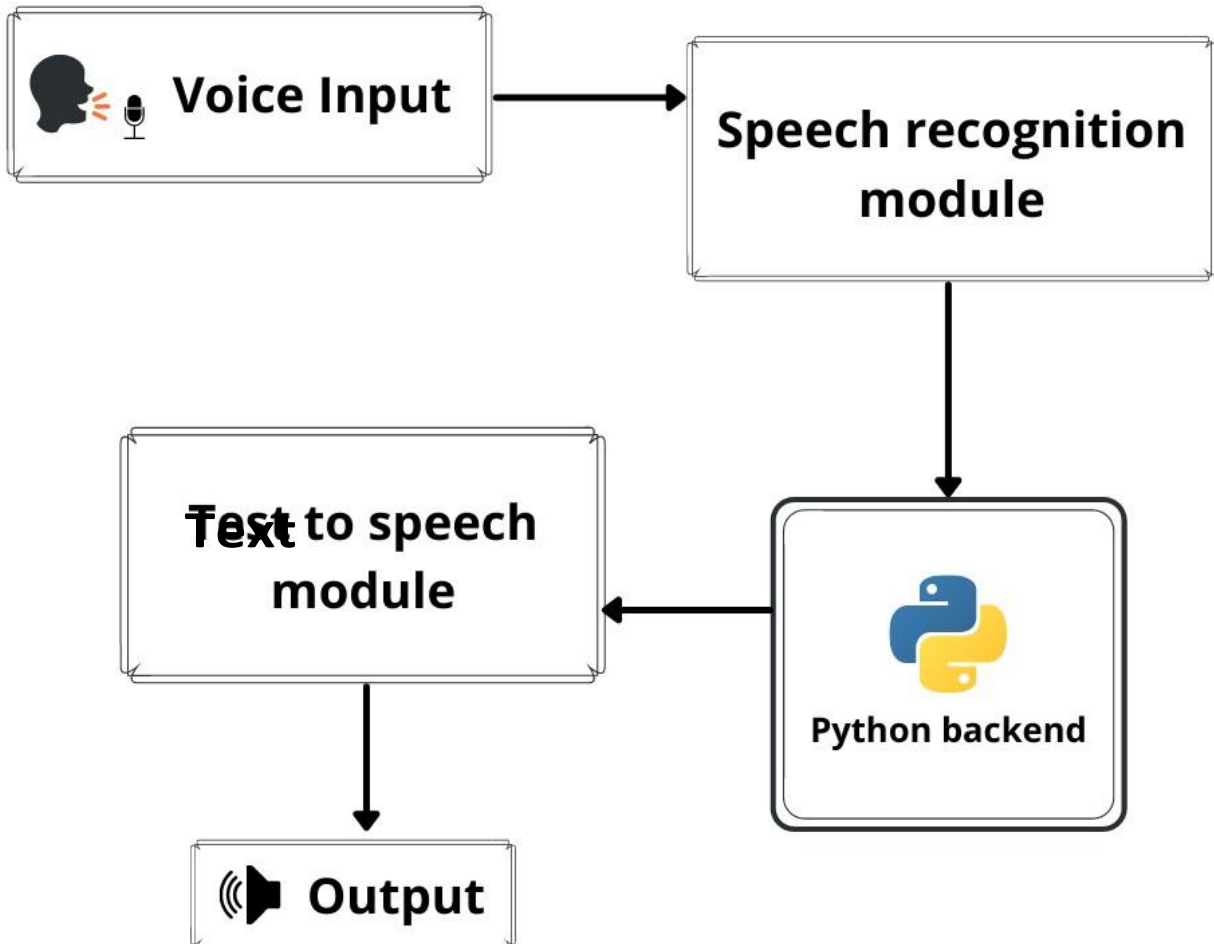
JetBrains specializes in intelligent, productivity-enabling tools to help you write clean, quality code across. NET, Java, Ruby, Python, PHP, JavaScript, C# and C++ platforms throughout all stages of development.

PyCharm 2021.2 (Python 3.9) used.



Working

The first step is to install and import all necessary libraries. How Omega (Virtual assistant) will work is shown in Fig.2(c). Use pip install to install the libraries before importing them.



Implementation

Python libraries

Following are some of the key libraries used in this program:

- The **SpeechRecognition library** allow Python to access audio from your system microphone, transcribe the audio, and save it.
- Google's **text-to-speech package,gTTs** converts audio question to text. The response from the look-up function that you write for fetching answer to the question is converted to an audio phrase by gTTS. This package interfaces with Google Translates API.
- **PyAudio** provides Python bindings for PortAudio, the cross-platform audio I/O library. With PyAudio, you can easily use Python to play and record audio on a variety of platforms.
- Function **pywhatkit**. playonyt(), opens the YouTube in your default browser and plays the video you mentioned in the function. If you pass the topic name as parameter, it plays the random video on that topic. On passing the URL of the video as the parameter, it open that exact video.
- **Date and time library** is used to know current time.
- **Wikipedia library** is used to fetch a variety of information from the Wikipedia website.
- **Pyjokes library** one line jokes for programmers (jokes as a service).