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| **Sinhgad Institute of Management**  **PROJECT REPORT**  **ON**  **‘Speech Recognition BOT’**  Submitted in partial fulfillment of the requirements  For the award of the Degree of  **Master of Computer Applications(MCA)**  **(**2021-2022**)**    **Under Guidance of:**  **Prof. Manojkumar Sawanand**  **Submitted by:**    **Name : Neeraj Prasad**  **Div : D**  **Rollno :451** |
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| **INTRODUCTION**   * This is project **‘Speech Recognition Bot’** is a system that recognizes the voice of the user and converts them into Text. * **Speech recognition Bot** is an application that allows the user to interact with their devices through **speech**. It is simply an **application** that enables a device to recognize the voice of the user and give a response or convert that voice into text. * If the voice of the user matches the Key Variable then the Application will give the response to it. * This System is implemented in JavaScript ,Hypertext Markup Language (HTML),Cascading Style Sheets(CSS) programming languages. |
| **Objectives**   * The main aim to Develop **‘Speech Recognition Bot’** applicationis to provide an easy way to convert speech into text. * If the user speaks the key variable(Open YouTube) then the application will give a response (Opening YouTube) and then Application will open <https://www.youtube.com/> automatically in the new Tab. * Convert Speech into text more easily and conveniently. If the user speaks the key value( eg:-Hello) then the application will give a response ( Hi). * Development for Application that can mainly be used for:   + Convert speech into text.   + Accessing a few sites through voice recognition.   + Having general communication(eg:-Hi, Hello) with the Bot. |
| **Needs of the System**   * A speech recognition bot system is used for recognizing the speech of the user and converting them into text and saving the typing Time of the user. * A speech is said by the user if that speech matches the command then this system will give a response to it. * Few sites are already fed in this system, if the user wants to access the sites then the user can say the name of the site verbally to the system to access them easily. * In short, this system helps to make the user work more easily, smoothly, and efficiently. |
| **Benefits Of The System**   * Accuracy is always imperfect. * It’s faster. * It is fairly accurate. * It allows for hands-free work. * Some voices don’t come across well. * The software cannot understand complexities of jargon or phrasing. * Speech recognition software can produce documents in less than half the time it takes to type. |
| **Modules of System**  **1)** **window.SpeechRecognition || window.webkitSpeechRecognition**  SpeechRecognition module is the ability for a machine or program to identify words spoken aloud and convert them into readable text. Rudimentary speech recognition software has a limited vocabulary of words and phrases, and it may only identify these if they are spoken very clearly. More sophisticated software has the ability to accept natural speech, different accents and languages. **2) new Date():** Date() : Creates date object representing current date and time. Date(long milliseconds) : Creates a date object for the given milliseconds since **January 1, 1970**, 00:00:00 GMT. |
| **Scopes of the System**   * Accuracy will become better and better. * Dictation speech recognition will gradually become accepted. * Small hand-held writing tablets for computer speech recognition dictation and data entry will be developed, as faster processors and more memory become available * Microphone and sound systems will be designed to adapt more quickly to changing background noise levels, different environments, with better recognition of extraneous material to be discarded. |
| **Files of System**     1. **Index.html**   Index.html File contain **HTML language** code which which give structure  to the web page .  **2**.**Style.css** :  Style.css file contains the **Cascading Style Sheets (CSS)**.This file is used to design the web page and make it more attractive.  **3.Main.js :**  Main.js file contains **JavaScript** (JS) Code.In this file all the backend code is written down by using SpeechRecognition Module.  **4.Read me:**  It’s a normal notepad file which contains the command which the user can say to the system and get response from the system. |
| **Operating Environment – Hardware, Software and Requirements**  **Software:-**  **IDE used :** Visual Studio Code  **Web Technologies :** HTML(7.8%) ,CSS(9.5%),JavaScript(82.7%)    **Hardware:**  **Hardware:** AMD RYZEN 5  **RAM :** 2 GB (minimum )  **Soft Requirements:**    **\* This System Work only in Google Chrome**  **\* JavaScript (JS)**  **\* Cascading Style Sheets (CSS)**  **\* HTML** |
| **Proposed System Design** |
| **Commands**  **\* This are the commands(keywords) which will get response by the system**   1. How are you? 2. What's your name? 3. Hello /Hi 4. Java Tutorial 5. Python Tutorial 6. Show me Maharashtra coronavirus . 7. Covid test center in Pune. 8. Map 9. News 10. YouTube 11. HackerRank 12. GitHub 13. What are You Doing? 14. How was your day? 15. I am Bored 16. What is a time? 17. Today's Date 18. Do you have any plans today? |