NOVA
THE VOICE ASSISTANT

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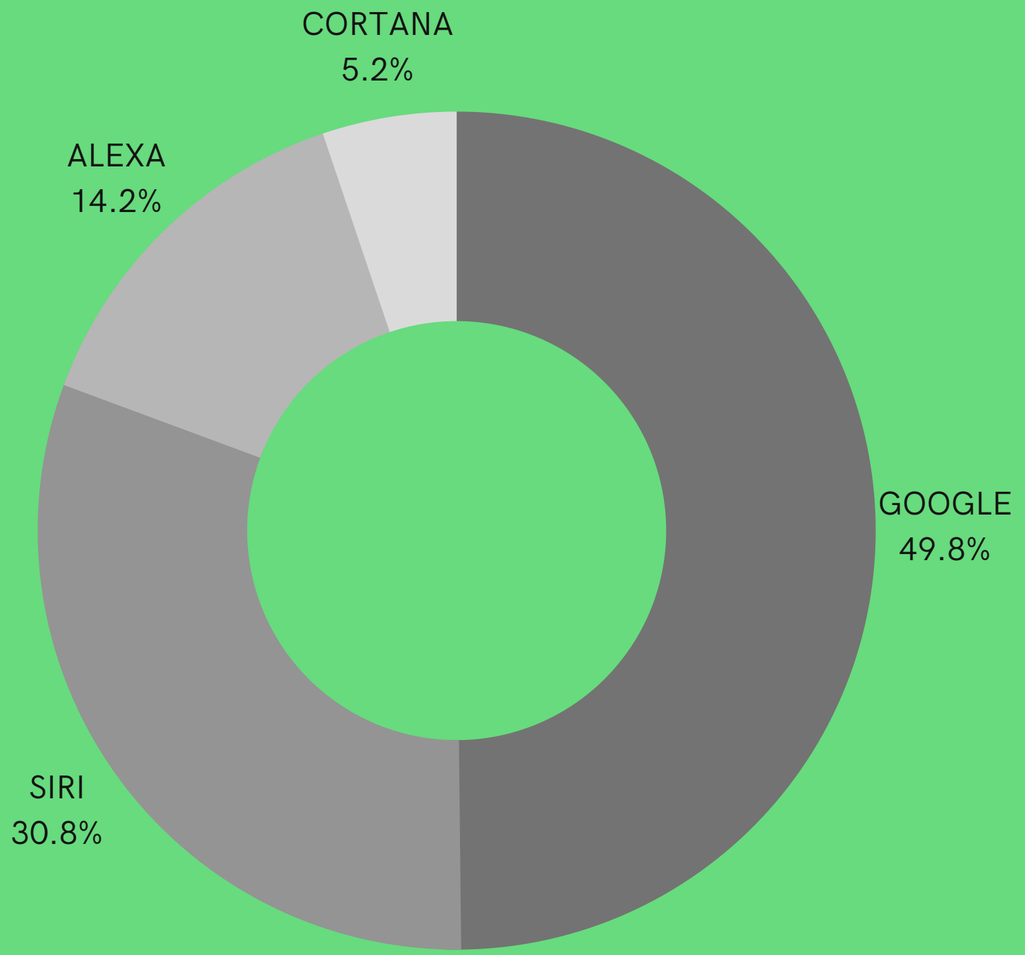
A voice assistant is a digital assistant that uses voice recognition, language processing algorithms, and voice synthesis to listen to specific voice commands and return relevant information or perform specific functions as requested by the user.

WHY THIS TOPIC ?

In this new era as technology is undergoing in advancements day by day, people are becoming more dependent on it and one of mostly used platform is PC(personal computer) .We all want to make the use of these computers in more comfortable way . As we know the traditional way to give a command to a computer is through keyboard but a more convenient way is to input the command through voice . Giving input through voice is not only beneficial for the normal people but also for those who are visually impaired/handicap OR anyone who are not able to give the input by using a keyboard

WHY DO WE NEED NOVA ?

- There are many voice assistants out there like Siri , Google , Alexa , Cortana , etc and according to the statistical report by forrester.com , The Assistant used by the windows OS (i.e Cortana) has very less user increase rate since 2019
- That's why we have developed an Alternative AI Based Voice Assistant which adds new automation features , removes the Drawbacks of existing Assistant , increases productivity ,etc ,which helps to improve user experience while using the Windows operating system



OBJECTIVES OF PROJECT

01 To make an alternative voice assistant for windows operating system using python programming language

02 To practise and implement advanced automation techniques .

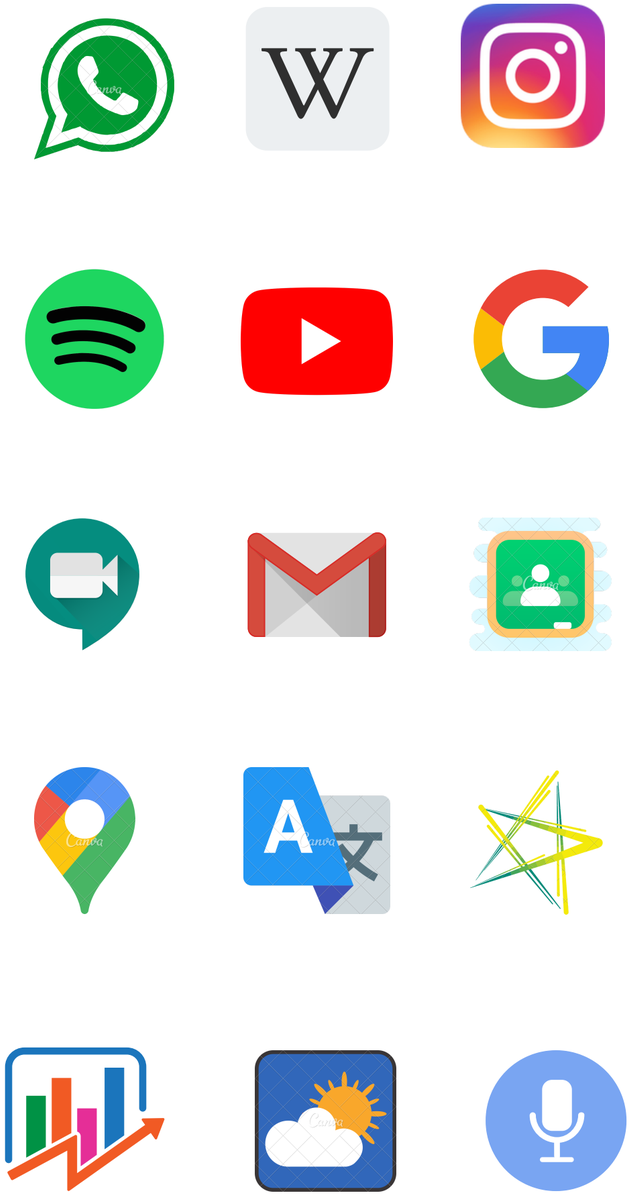
03 To increase the productivity of the user .

04 To provide ease of access of computer to visually impaired / handicapped users .

05 To solve drawbacks of existing system (CORTANA)

FEATURES OF NOVA

- RESPONSIVE WIKIPEDIA SEARCH
- STREAMS MUSIC FORM SPOTIFY/LOCAL MUSIC
- STREAMING VIDEOS FROM YOUTUBE
- OPENING WEB APPLICATIONS
- AUTOMATION OF WHATSAPP/INSTAGRAM
- AUTOMATING TASKS OF GMAIL/CLASSROOM/ONLINE MEETS
- FINDS LOCATION
- TRANSLATES UPTO 5 MAJOR LANGUAGES



SYSTEM REQUIREMENT

FUNCTIONAL REQUIREMENT

- Good internet connection
- Operating system : Windows 7 or later .
- Chromium-based browser, like Chrome, Edge.
- Microphone and speaker access.

NON-FUNCTIONAL REQUIREMENT

• Google Account username and password for using premium features.
• Non-functional requirements include project is compact and responsive, light on resources, system ensures safety, security and usability, which are observable during operation (at run time).

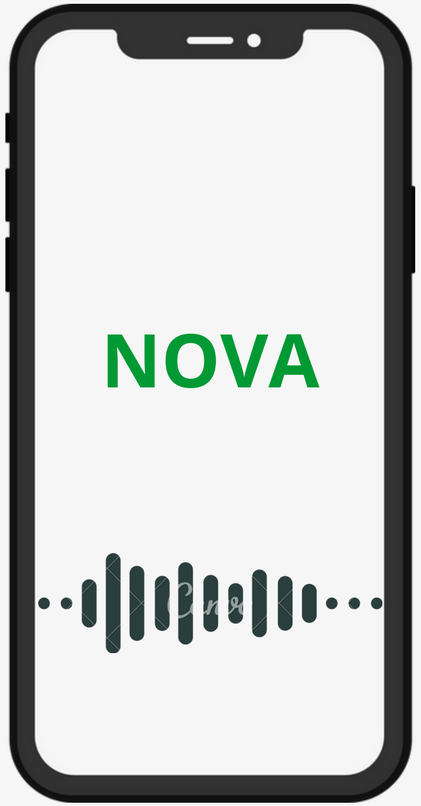
SYSTEM REQUIREMENT

• Recommended PC specifications are Intel i5/Ryzen 5 and 4 GB RAM or more. As the system has to open browser tabs ,execute tasks and give response in least time.
• Minimum PC specifications: Pentium-pro processor or later. RAM 512MB or more.

SECURITY

- The Security Testing Mainly Focuses on Vulnerabilities and Risks.
- As NOVA is a Local Desktop Application, There is No Risk of Data Breaching through Remote Access.
- The Software is Dedicated to a Specific System so when the User Logs in, it will be Activated.

FUTURE ENHANCEMENT



- Bringing Nova to mobile devices and smart watches.
- It would be able to perform task with IOT devices.
- Further we would update NOVA as per the new requirements of the users.

SCOPE OF SYSTEM

- Microsoft’s Windows is the most widely used computer (desktop, tablet and console) operating system (OS) in the world with more than 70 percent of the market share.
- In Today’s Day Lot of Windows Operating System are in Use But There is no Increase in Cortana Users so Due to this Crises there is a need of Alternative Assistant.We are Providing Free Software now Till 1.5 Year So People gets used to it, then we will be deciding Paid Plans to our Users to use our Premium Features like Automations,.etc

LIMITATION OF PROJECT

- Voice recognition technology struggles to cut through the background noise effectively.
- Trust is also a significant issue among users of voice assistants. Microsoft found that 52% of users have concerns about personal information and data security when using voice assistants
- Hardware limitations. Reliance on device makers, such as smart speaker brands, wearable device companies ,vehicle manufacturers, and smart appliance producers.

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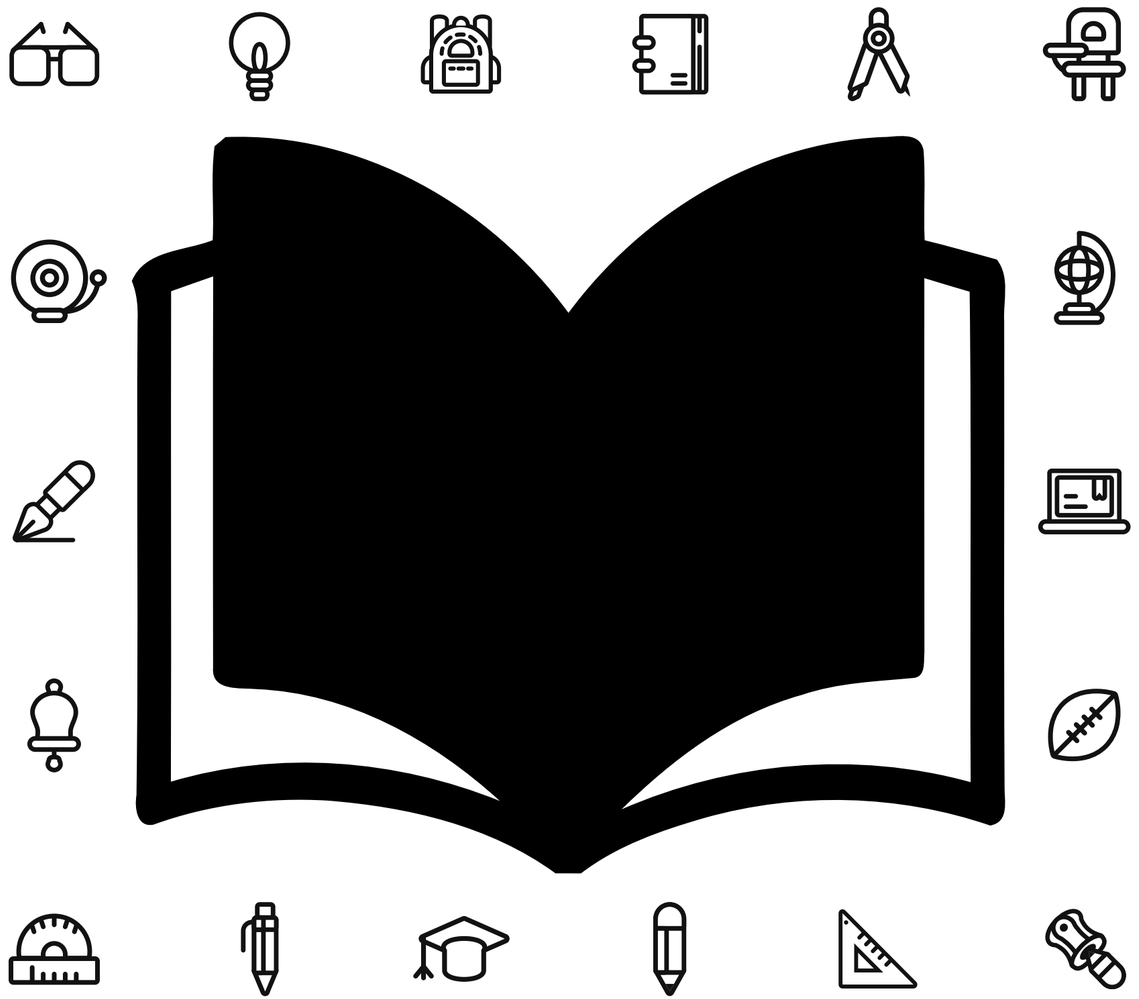

Do you have any questions?