



VisionAid

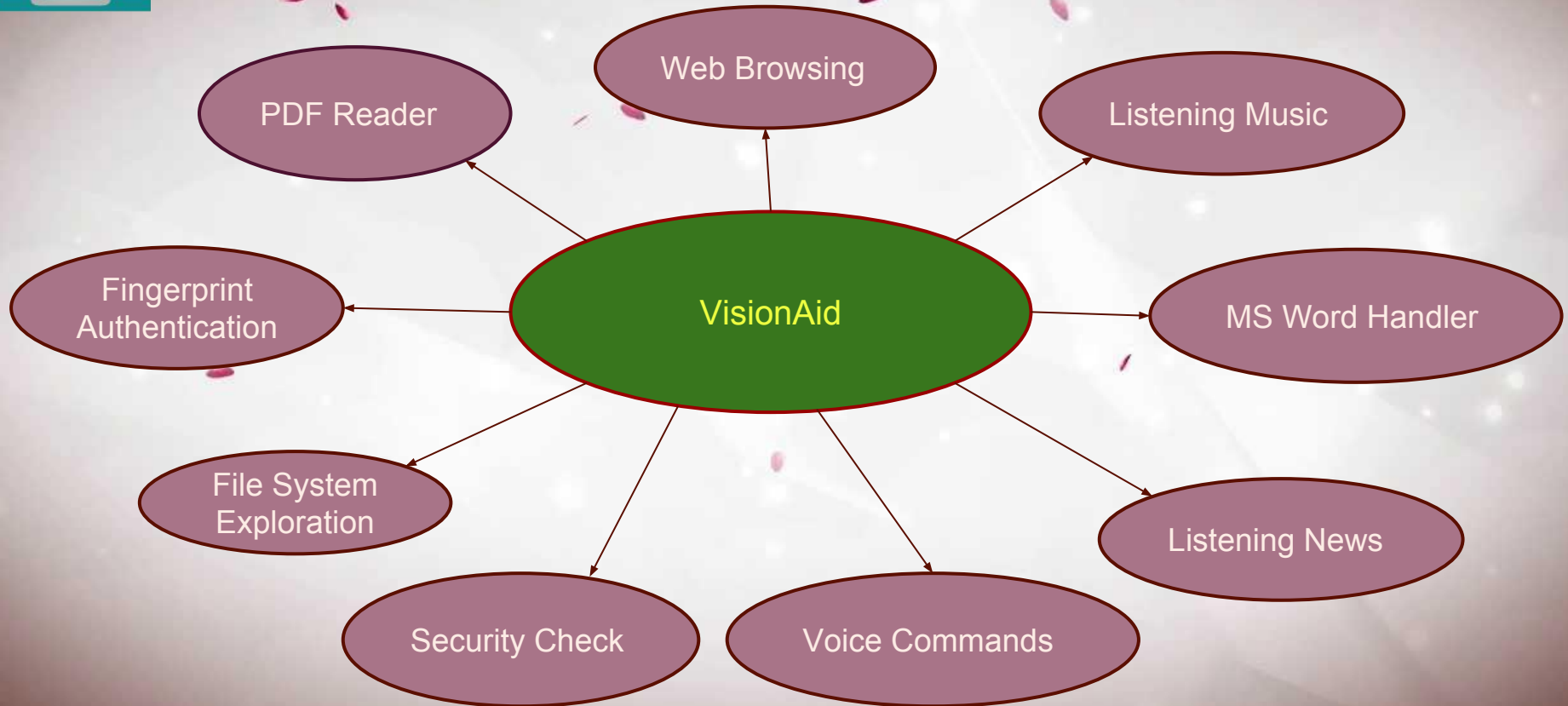
By : 'PyLadies'

Creation of a Desktop application that provides ease of access for computer applications to differently abled users using Biometric login, Voice recognition, Text to Speech, GUI manipulation and Security features.





Features of VisionAid





FingerPrint Authentication

- To allow the user to log into the system via recognizing their fingerprint.
- If fingerprint is not matched, providing them privilege of OTP which has to be changed after usage.
- Develop profile for login with biometric credentials and a one time password for “Forgot password” utility.





PDF Reader

Enable User to read the content from pdf files with additional functionalities to:

- Search for a keyword
- Skip pages
- Rewind
- Repeat
- Jump on a page

PDF



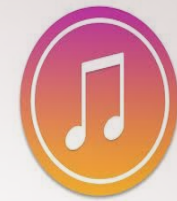


MS Word Document Handling

Enable visually impaired user to handle word document by:

- Writing paragraphs, tables, etc., to a document
- Formatting Text
- Add pictures to the document
- Listen the content of word document





Listening to Music and News

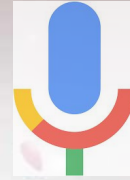
Enables a visually impaired person to enjoy listening to music and news. User can:

- Listen to music via voice commands
- Create and update autoplaylist
- Play, Pause, Rewind, Forward and Skip
- Listen to News





Web Browsing



Enable Visually impaired user to browse the INTERNET

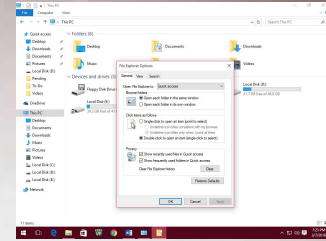
- GoogleSearch
- Visit a URL
- Create and Manipulate Bookmarks
- Explore History
- Listen to the contents of the web page





File System Exploration

User can search for a file, listen to list of directory and explore and manipulate file system of their system.



Voice Commands

Using Google Voice Recognition API to convert voice of user into system commands.





Security Check

System will check randomly during system usage whether the logged person is same as the person using the system at the current moment, if not then system will be shutdown. It uses face recognition technique and we are using open source API to implement this feature.

SMS Password Reset

Please enter the code you were sent by SMS. It will look something like 63423423.
You may need to wait a few moments before it arrives.

No SMS? Check your email for the password reset email.





Technology Stack

- Python
- Windows OS
- Open CV
- Python Open Source Libraries and Third Party libraries (Cisco Glance, Tropo, Spark bot)

HARDWARE

- FingerPrint Scanner

