



Digital Library for Disability Person

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ABSTRACT

The Digital Library project is started with a vision of digitizing books and providing audio-video collection of lectures for the people with disabilities, in an easy to access form.

It is not possible to provide literatures and certain another book in brail script, so videos- audios collection can be useful to them. And videos with sign language will useful for deaf peoples.

But this project is also bounded with some limitations like Books with different languages are difficult to convert in digital. Also since this application is online it is necessary to have internet connection with all necessary system requirements.

Above all limitations this project can serve both able and disables to use all modern technologies with high performance, scalability, availability and economy.

I. INTRODUCTION

Our team compromises of five students Anuhya, Trupti, Pallavi, Nikita and Milan. Our main aim is to provide easy access to books for everyone(able and disabled) through Digital Library. We the Students of ARHAM Veerayatan (Computer 8th Semester) are providing such a medium so that everyone can have an easy and cheap medium to access books.

The Digital Library project is started with a vision of digitizing books and providing audio-video collection of lectures for the people with disabilities, in an easy to access form.

The project aims in developing a Digital Library that is easily available, shareable, can be maintained and also available at free of cost. Other than literatures and another certain books, it also provides educational books and videos, which will be useful for the student. For people with disabilities the system compromise of special facilities like videos in sign language for deaf, audio clips for blind and voice command system for handicapped people. This will make an ease for the people with disabilities to achieve their education

II. LITERATURE REVIEW

‘Inclusive education’ policy has been introduced in India, however the concept is in its infancy This qualitative study analyses the case of children with disabilities studying in private inclusive schools of Mumbai. It discusses the development of self-concept, elucidates the benefits and challenges of children with disabilities in inclusive

education. We then suggest recommendations for improvements in implementing inclusive education in India.

The objective of the research project was to identify and analyze technologies that aid the blind and visually impaired in educational preparation for work, and in employment. The research also aimed at identifying strategies that either assist or aid employed blind and visually impaired workers in developing their skills to participate at higher levels in their current employment positions. As well, the research aimed to provide conclusions and recommendations that would inform the development of better education mechanisms for the blind and visually impaired.

The science of learning seeks to understand the relationship between brain development, social interaction, and learning by drawing on the fields of psychology, neuroscience, machine learning, and education. This research holds great promise for improving our teaching practices for all students and helping us develop more effective approaches to teaching children with sensory and learning disabilities. Many of the universal design features built into Apple hardware and software offer simple but powerful ways to support diverse learners' needs, both in classrooms and at home. This white paper provides an overview of educational technology policy and practice with concrete examples of how teachers, students, and parents can use Apple technology to make a difference for students with sensory and learning disabilities.

Mobile platforms such as smart-phones and tablet computers have attained the technological capacity to perform tasks beyond their intended purposes. The steady increase of processing power has enticed researchers to attempt increasingly challenging tasks on mobile devices with appropriate modifications over their stationary counterparts. In this work we describe main features of software modules developed for Android smart phones that are dedicated for the blind users. The main module can recognize and match scanned objects to a database of objects, e.g. vegetable containers. The two other modules are capable of detecting major colors and locate direction of the maximum rightness regions in the captured scenes. In this paper, an application is proposed for visually impaired people to make their day to day life activities easy and simple.

There must be a full range of program options and support services so that the Individualized Education Program (IEP) team can select the most appropriate placement in the least restrictive environment for each individual student with a visual impairment. In order to meet the individual and disability-specific needs of students with visual impairments, there must be a full array of program options and services. Educational needs that are specific to these students must be addressed throughout their school experience. Educators of students who are visually impaired recognized long ago that the only manner in which the unique, individual needs of students could be met.

III. COMPARISION CURRENT SYSTEM VS DIGITAL LIBRARY

SR.	CURRENT SYSTEM	Digital Library
1.	There is no current system which provides all type of content for students at one place.	Our Library will provide all types of content such as E-books, Audio and Videos at same place.
2.	Most of them doesn't have special corner like sign videos for deaf and audio books for blind.	Our E-Library provides special corner for sign videos for deaf and audio books for blind which make it more reliable.
3.	Generally contain only soft copy of books and apply charges for sign up or accessing the full version of books	We are making our website charge free i.e. no charges for signing in or accessing the full version of videos, audios or soft copy
4.	Most websites contains lot of advertisement which is unnecessary and user finds it irritable.	Our website avoids such unnecessary advertisement and allows smooth flow.

Below are pictures of our system that shows how it can be used to make all type of content available in a single system.

Fig 1 Sign Up/Sign In Page

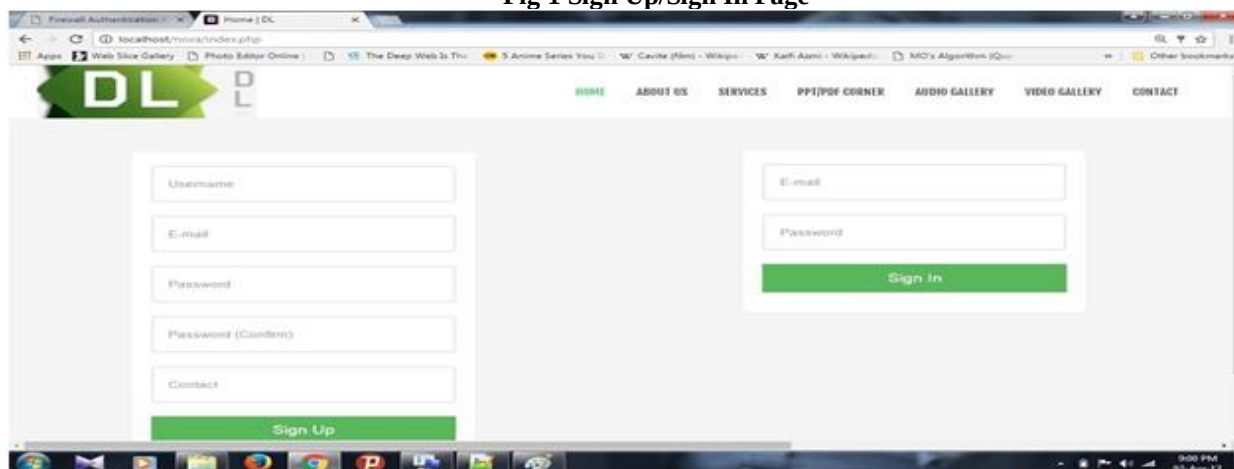


Fig 2 Home Page

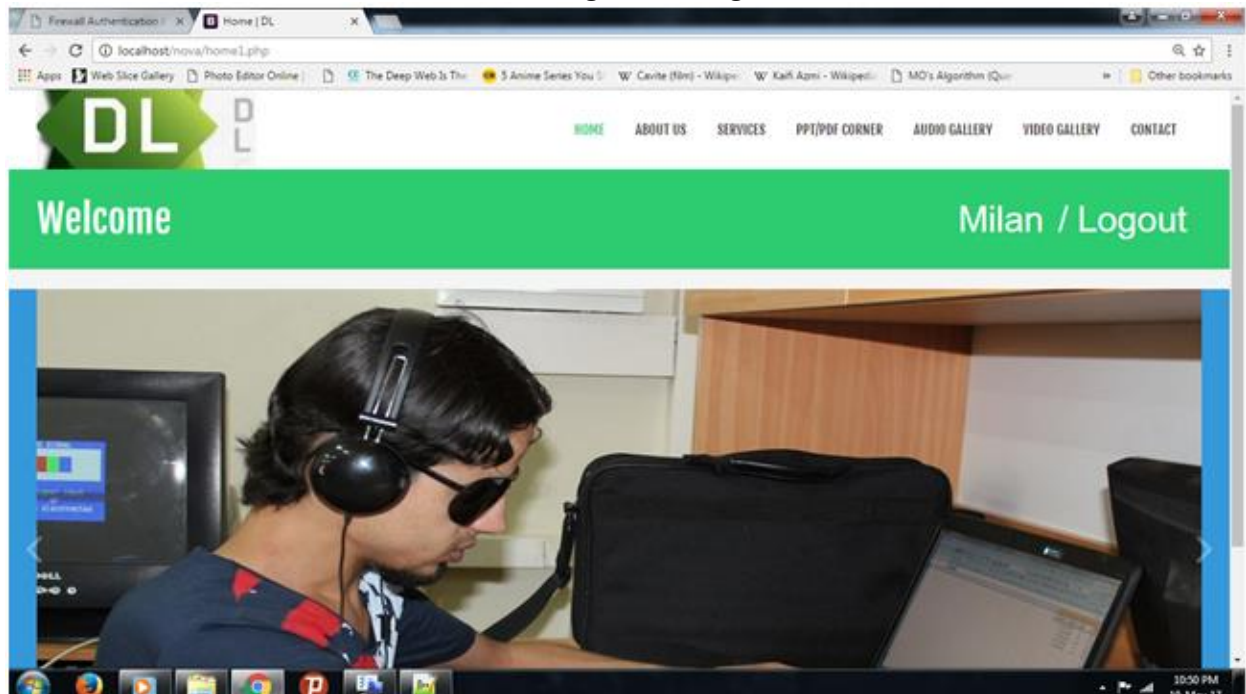


Fig 3 E-Books Page

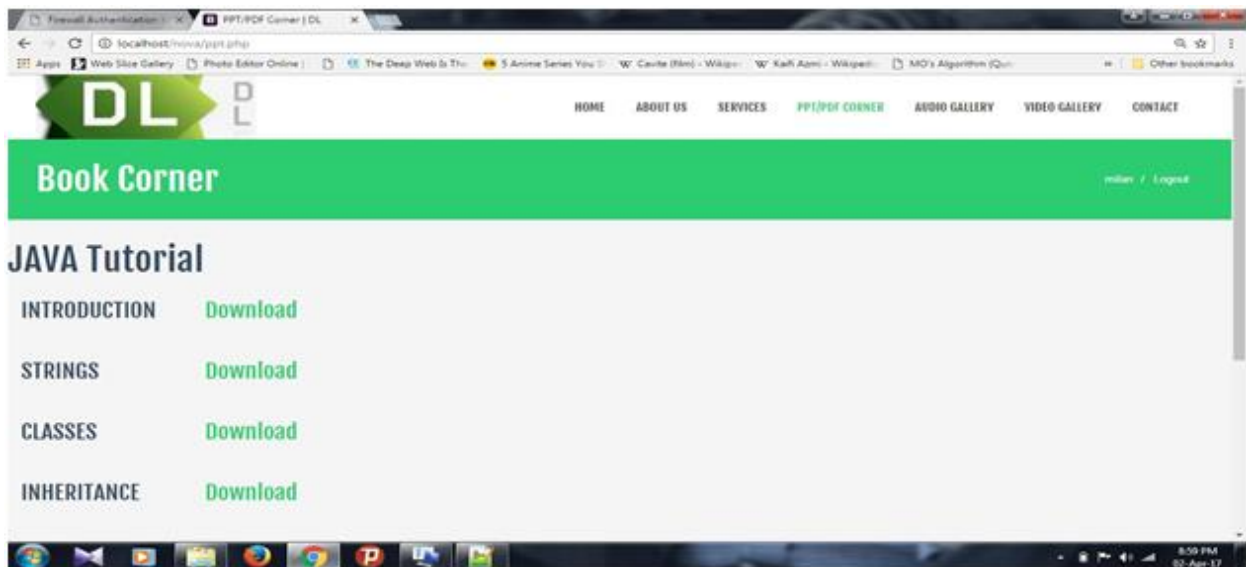


Fig 4 Audio Gallery Page

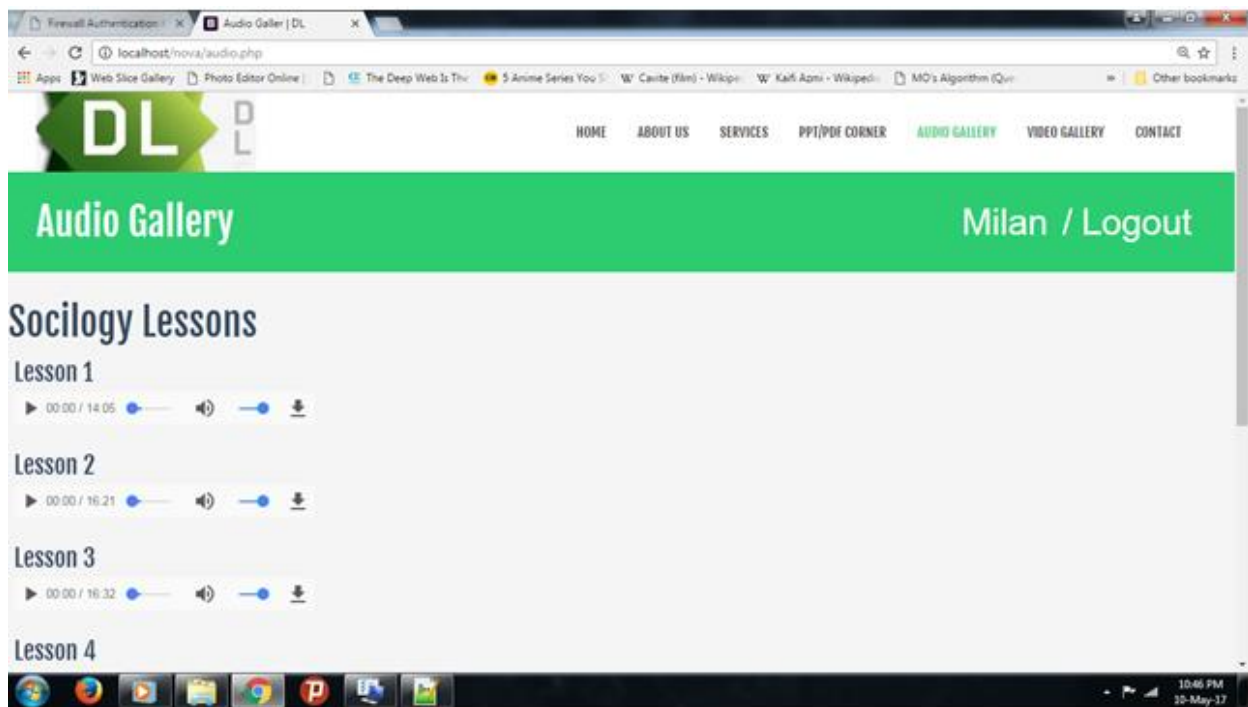


Fig 5 Video Gallery Page



IV. CONCLUSION

The Digital Library for disabled and able is an effort to make the education simpler and easily accessible for the users who are perusing for higher studies specially the handicapped and disabled users. It also has special features like video, audio, ppt/pdf corner to provide wider view of a topic or field the user is interested in.

V. FUTURE SCOPE

- For future development there can be Book Purchase section.
- Customer can buy books from this section.
- Customer can also buy books in Braille Script.
- In future this system can be used to provide audio and videos files in of different languages.
- If developed properly it has potential of becoming one place for all content for all students.

REFERENCE

Patents:

1. Christopher Smith Jennifer Smith US Patent 20130004935 A1. [Online social learning systems, methods, and computer program products]
2. Michael L Mauldin, Michael A, Howard D Wactlar, D Raj Reddy, US Patent CA 2202539 C. [Method and apparatus for creating a searchable digital video library and a system and method of using such a library]
3. Glen Dobbs, US Patent 20120171645A1. [Method And System For Autonomous Teaching Of Braille]
4. Chengwu Cui, Stuart Willard Daniel, US Patent 7675641 B2. [Method and device for converting scanned text to audio data via connection lines and lookup tables]
5. Samuel Gustman, US Patent 6092080 A. [Digital library system]
6. Robert D Glaser Mark OBrien Thomas B Boutell, US Patent 5793980 A. [Audio-on- demand communication system]
7. Howard D Wactlar Takeo Kanade Michael L Mauldi, US Patent 5835667 A [Method and apparatus for creating a searchable digital video library and a system and method of using such a library]
8. Samuel Gustman ,US Patent 6092080 A [Digital library system]
9. Steven Victor Kauffman Lara Marie Lewis James AI, US Patent 5787413 A[C++ classes for a digital library]
10. Nicholas W Fenton Michael F Mannarino Wendy Sp, US Patent 6910049B2. [System and process of managing media content]
11. Stephen Hall, EP Patent1852791 A1. [Providing user access to digital content data]
12. Naren Chaganti, Damayanti Chaganti, US Patent 20110197159A1[Online Personal Library]
13. Samuel Gustman, US Patent 5832499A.[Digital Library System]
14. Kenneth L Levy, US Patent 6505160B1.[Connect Audio And Other Media Objects]
15. David MunHien Choy, US Patent 6021410A. [Extensible digital library]
16. David Nicholas Rousseau, Julie Anne Rousseau ,WO Patent 2004097675 A1 [Digital Library]

System]

17. Barbara Ander, Sidney Ander, US Patent 8566077 B2.[Sign language translator]
18. Damayanti Chaganti, US Patent 8978147B2.[Online Personal Library]
19. Tatsuo Nishizawa, US Patent 20040010332A1.[System For Delivering Digital Books]
20. Kim Hansen, US Patent 11341245.[Apparatus, system, and method for digitally presenting the contents of a printed publication.]
21. John Hendricks, US Patent 20020040472A1 [Electronic book selection and delivery system having encryption and security features]
22. Eddie Williams, US Patent 20020002541A1 [Online digital content library]
23. Jeffrey Robbin, Peter Wagner, Mike Wiese, US Patent 20050193094A1.[Graphical user interface for browsing, searching and presenting media items]
24. Howard D Wactlar, US Patent 5835667A.[Method and apparatus for creating a searchable digital video library and a system and method of using such a library]
25. John McCue, Robert McCue, Gregory Shostakovsky, US Patent 8738740 B2.[Transmission of digital audio data]