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SGU Library - Sanjay Ghodawat University Library

Yogayya Swami[a], Viraj Patil[a],Rohan Bhople[a],Harshvardhan Kamble[a],Nilesh Ghorpade[b]*

[a]*Student, Sanjay Ghodawat Polytechnic, Atigre, India*
[b]*Project Guide, Sanjay Ghodawat Polytechnic, Atigre, India*

A B S T R A C T

The main objective of this project is to provide the hand free access to the library portal through Android Application. This project of "SGU Library" gives us the complete information about the library. "SGU Library" is a free search engine which allows you to search, preview and download Books, files into your devices.An eBook (short for electronic book), also known as an e-book or eBook, is a book publication made available in digital form, consisting of text, images, or both, readable on the flat-panel display of computers or other electronic devices. Although sometimes defined as "an electronic version of a printed book", some e-books exist without a printed equivalent. EBooks can be read on dedicated e-reader devices, but also on any computer device that features a controllable viewing screen, including desktop computers, laptops, tablets and smartphones.

1. Introduction

An Android library is structurally the same as an Android app module. It has user Friendly Interface. It is eBook android application, its provide online eBooks free. This application simple for searching and reading eBooks. It has provides only Diploma engineering related books department level.

Benefits of Android EBook Library
1. One Device, Many Books.
2. EBooks are portable and lightweight.
3. Making it easy to carry around.
4. Accessible Everywhere.
5. Easily Updates.
6. Shareable Content.
7. Augmented Reality Experience.
8. Easy on the Eyes.
9. Read Aloud Feature.
10. Interactive Elements.

The purpose of EBook android library application helps in maintaining data of books issued to learners and books available in the library. It helps in keeping track of the books, catalogues, magazines. This allows user to easily check the diploma and engineering eBooks. Thus the Library android application system allows user to easily login and access an application to read and download eBooks.Lower Costs of Production : You should consider eBook because their cost of productionis low. You do not need to pay for materials such as ink and paper. Even the labor costs will be much lower. Because of the much lower costs of production associated with eBooks, you may also be able to distribute them free of charge. It will therefore be easier

for you to cut down your book prices and make them more accessible to your target audience. When done right, the large volume of E-book you sell will help raise your profit margins.

Storage and Delivery Convenience: eBooks are stored online. For that reason, you do notneed to rent a large storage facility to keep them until customers buy them. In addition, afterpurchase, there is no need for shipping. All your customers need to do is download their copyand they will be good to go. How convenient is that?Eco-friendliness: Papers are made from trees. Since eBooks do not require you to useany paper, you will be able to help the environment if you opt to publish a digital book. Youcan even use your eco-friendly publishing ways to appeal to lovers of the environment when marketing.Global reach: The Internet has no boundaries. For that reason, your eBooks have a higherchance of achieving global fame since they can be accessed from anywhere in the world.Proposed framework utilizes IR sensors to take programmed meter perusing. To get digitsisolate out and to ascertain the bill for the month processor is utilized with form calculation.In this system, Arduino is used because it is a Single board microcontroller. On the off chancethat we need to, we can utilize the Arduino to surf the web, send an email and numerous allthe more utilizing a word processor. After that, this bill is send to the server remotely utilizingWi-Fi module and show on LCD for client's reference.

2. Literature Review

The early digital library projects arose out of the traditional library environment. The Internet gave new possibilities for global information sharing. Early digital library projects gradually moved to the web environment. Examples of these transitional digital library projects include: Project Mercury sponsored by Carnegie Mellon University, the Perseus Digital Library, the Chemistry Online Retrieval Experiment (CORE), Elsevier's TULIP project, and the Envision Project. Following is a discussion of two digital library projects that represent a focus on humanities and science in this period of time: The Perseus Digital Library and the CORE project.

2.1 DRDO eLibrary - Defence Research and Development Organisation (31 January 2021) Offered By Refread.com

DRDO eLibrary App serves its users with mobile, on-the go access of a massive collectionof over 200,000+ eResources and information feeds including: Top, peer reviewed eJournals,eBooks from world class publishers, 1000s of open access resources from web.

2.2 KLMDCW eLibrary. K.L. MEHTA DAYANAND COLLAGE Library (18 December 2020) Offered By Refread.com

KLMDCW eLibrary App serves its users with mobile, on-the go access of a massive collectionof over 500,000+ eResources and information feeds.

2.3 National Digital Library of India (6 August 2021)

Ministry of Human Resource Development under its National Mission on Education throughInformation and Communication Technology has initiated the National Digital Library of India(NDL India) pilot project to develop a framework of virtual repository of learning resourceswith a single-window search facility.

2.4 ePathshala (27 May 2020) Offered By NCERT

The digital India campaign has promoted extensive use of ICTs in the teaching learning process.The ePathshala, a joint initiative of Ministry ofEducation (Moe), Govt. of India and NationalCouncil of Educational Research and Training (NCERT) has been developed for showcasingand disseminating all educational e-resources including textbooks, audio, video, periodicals,and a variety of other digital resources.

2.5 Bennett University eLibrary (20 September 2020) Offered By Refread.com

Bennett University eLibrary App serves its users with mobile, on-the go access of a massivecollection of over 200,000+ eResources and informationfeeds including: - Top, peer reviewedeJournals - eBooks from world class publishers - 1000s of open access resources from web -Literature for leisure reading

3. Objective and Scope

3.1 Objective of Project
- To collect, organize collate print digital information disseminate at the point of care and for future use.
- To provide seamless access to information
- To act as gateway to digital and electronic information
- To develop in to a single access point library.
- To create and update a comprehensive database of SGU in the field of eBooks.

3.2 Scope of Project
The goal of the eBook library is to assist users by satisfying their needs and requirements for management, access, storage, and manipulation of the variety of information stored in the collection of material that represents the "holdings" of the library. Users may be humans or they may be automated processes

acting on behalf of or in support of human needs. Users also vary and include those who are "end" users (those not involved in the management and operation of the library but rather are the customers), library operators, and information "producers" who want their material available through the library.

4. Methodology

4.1 System Architecture

The system architecture is rationalized relative to the operational and technical architecture. Itis desirable, to concern, system properties such asscalability and extensibility can be taken intoaccount at the system architecture level. At this level whole digital library system is kept inmind. It can be said that DL is a centralized subsystem that interacts with variety of data producersand customers within a complex distributed system.
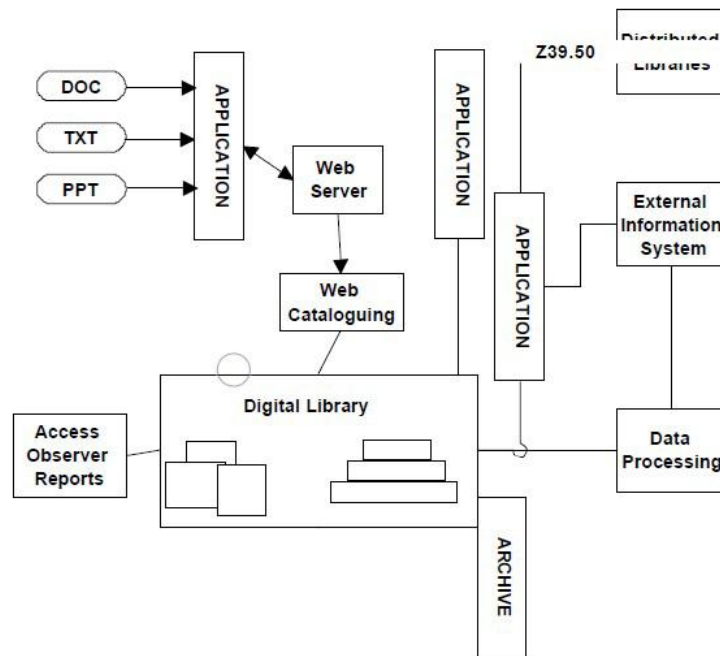
Fig.4.1 System Architecture

4.1.1 Module 1: Login Screen Module

A Login screen is the screen where the user is asked to fill his credential like email, name etcto login into any particular application.simple loginapplication using the Android Studio. In the first part we will design our loginapplication and set up all the resources and in the second part, we will writethe backend codefor this application.

Some components that I will use:

- View pager
- Fragment
- Edit text
- Button
- Text view
- Image view

we must already have an Android Studio. if not, you can download it first on the officialAndroid Studio website. If you already have one, please open your Android studio. We createa new project by clicking "Start a new Android Studio project". Fill in the application namecolumn with "LoginApp", then click next. Select the minimum SDK you need or want, thenclick next. Select "Empty Activity" and click next. After that, the "Activity Name" and "LayoutName" columns will appear, in this section just leave it like that, then click finish. After youclick finish, Android Studio will make you an application with the name "Login App".

4.1.2 Module 2: Main Dashboard Module

The essential test for any library homepage is whether or not a user can effectively utilize thesite's services.

- Content: The actual text, images and ideas on the page.
- Navigation: The consistent system that allows users to move through the entire website.
- Layout: The spatial relationship between content.
- Look and feel: The colour palette, graphics and affective impression of the site.

4.1.3 Module 3: Download eBooks Module

This class enables generating a PDF document from native Android content. You create anew document and then for every page you want to add you start a page, write content to the page, and finish the page. After you are done with all pages, you write the document to an outputstream and close thedocument. After a document is closed you should not use it anymore. Notethat pages are created one by one, i.e. you can have only a single page to which you are writingat any given time. This class is not thread safe.

Downloadable Content Format

- PDF Downloadable Book
- PPT Documents
- Word Docs

4.1.4 Module 4: PDF View In Application Module

PDF documents are the de facto standard for archiving, transferring, and presenting documentsonline. Android developers frequently need to display PDF documents within theirapplications. We'll begin with the basic PDF support provided by the Android SDK library,move on to MuPDF, and finally look at rendering PDFs with the Android PdfViewer library.The Android SDK has had basic support for PDF files since API level 21 (Android 5.0).This API resides in a package, android.graphics.pdf, and it supports basic low-level operations,such as creating PDF files and rendering pages to bitmaps. TheAndroid SDK doesn't t providea UI for interacting with PDF documents, so you'll need to write your own UI to handle userinteraction if you wish to use it as a basis for a PDF viewer in your app.
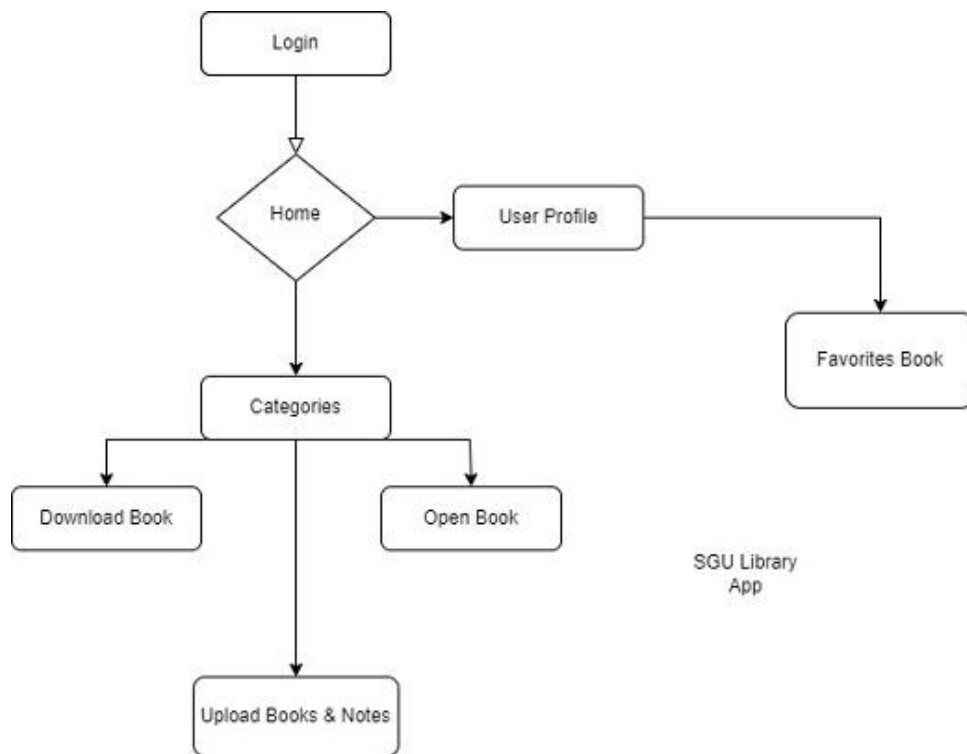
5. Flowchart

Fig. 5.1 Flowchart

6. System Configuration

6.1 Hardware Requirement

- Processor - Intel i5, Ryzan 5 (Min0 • RAM - 8 GB(min)
- Hard Disk - 64 GB(min)
- Graphics Card - NVIDIA 2 GB(min)
- Mouse
- Keyboard
- CPU
- UPS
- USB Cable
- OTG Cable
- WIFI
- Bluetooth
- LED Monitor
- Ethernet Cable
- Pen drive

6.2 Software Requirement

- Operating System - Windows 8,Windows 10, Android 6+,
- Languages - Java
- Android Studio (Latest)
- Intellij IDEA

6.3 Database Requirement

- Firebase Database
- Airtable Database

7. Advantages and Disadvantages

7.1 Advantages

- No physical boundary: - The user of a digital library need not to go to the library physically
- Round the clock availability: - Digital libraries can be accessed at any time.
- Multiple accesses: - The same resources can be used at the same time by a number of users.
- Information retrieval: - The user is able to use any search term bellowing to the word orphrase of the entire collection.
- Preservation and conservation: - An exact copy of the original can be made any number oftimes without any degradation in quality.
- Information retrieval: - The user is able to use any search term bellowing to the word or phrase of the entire collection.
- Preservation and conservation: - An exact copy of the original can be made any number of times without any degradation in quality.
- Space: - Whereas traditional libraries are limited by storage space.

7.2 Disadvantages

- Copyright: Digitization violates the copy right law as the thought content of one authorcan be freely transfer by other without his acknowledgement.
- Speed of access: As more and more computer are connected to the Internet its speed ofaccess reasonably decreasing.
- Initial cost is high: The infrastructure cost of digital library i.e. the cost of hardware,software; leasing communication circuit is generally very high.
- Band width: Digital library will need high band for transfer of multimedia resources butthe band width is decreasing day by day due to its over utilization.
- Efficiency: With the much larger volume of digital information, finding the right materialfor a specific task becomes increasingly difficult.
- Environment: Digital libraries cannot reproduce the environment of a traditional library.
- Preservation: Due to technological developments, a digital library can rapidly becomeout-of-date and its data may become inaccessible.

8. Reference

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