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**PROJECT SYNOPSIS**

**ON**

Easy Library Access

**An Android App for Easy Library Access**

aNDROID AND sERVLET TECHNOLOGY

Submitted in partial fulfillment of the requirement for the

award of degree of

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**in**

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**BY**

**ADARSH SINGH and ARPIT VARSEHNEY**

Under the guidence of

**Dr.Pankaj Kumar**



DEPARTMENT OF COMPUTER SCIENCE

**SHRI RAMSWAROOP MEMORIAL GROUP OF PROFESSIONAL COLLEGES ,LUCKNOW**

**BY**

**GAUTAM BUDH TECHNICAL UNIVERSITY, LUCKNOW**

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TITLE OF THE PROJECT

“Easy Library Access”

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**INTRODUCTION**

**AT** present, there are wide ranges of library stock available in different places like colleges, companies, hotels etc for different class of people. The common methodology used is that one selects a book and the admin issues it to the concerned person. Being specific to the arena of colleges, this scenario sometimes become cumbersome for both the issuer and user to stand in queue for asking any query or for the access to the shelf or for issuing of a book. In this context, we have stepped forward to design an android application which will not only be easy for the user to have access to the library system but also will provide an easy to get interface for both the admin and the user to understand and use. The motive behind using the android platform is that this is one of the most popular Operating System currently available in market at ease. So by using it, it will be assured that the application is benefitted to most of the mass. Also the interface provided by android is very simple and can be easily manipulated to custom into different ways.

**Features-**

* Contains different accounts for different users.
* Uses barcode reader for detecting users is
* Admin has his own administrative privileges like changing password etc
* User can access information on books,his profile etc.
* It provide a medium to issue books online via the application

**OBJECTIVES-**

The main objectives of “Easy Library Access” are as follows-

1)To provide user with distant access technology.

2)To provide easy to use interface for the user to access library

3)To allow user to make appeal for issue of any available book

4)To allow user to fetch information about the availability of books in the library.

5)To ease the login technology by the use of barcode system

6) To maintain unique User profile for each user.

7)To provide administrative privileges to the owner or admin of the library.

**WHY USE “EASY LIBRARY ACCESS”-**

* **Easy to use** customizable interface makes your work comfortable and productive.
* **Easy to understand** for technical as well novice person.
* **Powerful Design For Fast and reliable access**.
* **User-friendly** wizard interface.
* Ability to use Auto-maintained Profile for users and admin.

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## Types of User Accounts and Permissions

The system must provide for the following types of user accounts:

|  |  |
| --- | --- |
| **ACCOUNT TYPE NAME** | **PERMISSIONS** |
| Administrator | User can access any component or area of the system including accounts of other users |
| Librarian | User can access the catalog management features of the system |
|  |  |
| Student | Same as a Patron, except may not access Purchase features |

# User Requirements

This section outlines the main requirements that relate to the end users who borrow and purchase eBooks from the E-Library.

## Online User Registration

User will be registered only by the admin authority according to his/her validity in the campus

## User Login/out

Once verified, users must be able to log in to the portal.

Users must be able to change their password (but not their user name/ID)

There must be a way for users to retrieve a lost password

Users must be able to log out.

On logout, the contents of user’s Select List and Cart are cleared.

## Catalog Search

Users must be able to search for Books and eBooks.

The system should provide interfaces for both “simple” and “advanced” searches

* “simple” should be a search on any one of fields *Author*, *Title*, or *ISBN*.
* “advanced” should provide an easy way to construct complex searches on multiple fields with different logic (e.g. AND, OR, NOT)

## Catalog Quick Search

The system should provide several “quick search” options:

* Newest eBooks – returns a listing of the 10- 50 (configurable) most recently added eBooks
* Latest Returns – returns a list of 10-50 (configurable) most recently checked-in eBooks
  + immediate loan

## Catalog Browsing

Users must be able to browse the eBooks in the catalog

Users must be able to select how they want to browse:

* Browse by Author
  + Must be able to select an alphabetical subset… e.g. author names beginning with A, or M for example
* Browse by Title
  + Must be able to select an alphabetical subset… e.g. author names beginning with A, or M for example
* Browse by genre (e.g. fiction, non-fiction, science fiction, etc.)

## Check Out eBooks

User should be able to navigate to Check Out any time via a readily visible link or button

The checkout page must display the eBooks in the user’s Select List

The user must be able to remove eBooks from the Select List at this point

Via an appropriate UI widget, user should be able to execute check out which processes on all the eBooks left on the Select List.

When checkout is complete, user must be presented with a page of the checked out titles, each title having a DOWNLOAD widget. Clicking the widget downloads a copy of the eBook with appropriate DRM applied.

Each checked out eBook should remain listed on the user’s Downloads page until the loan period expires.

**T**he basic aim in the new proposed system was to provide all **improvised functionality** and flavor system minus the entire drawbacks or shortcoming analyzed. With platform like Android the major irritants of easy access to the system and security are almost completely removed.

**Android** is a Linux-based operating system. Android is open source and Google releases the code under the Apache License. This open source code and permissive licensing allows the software to be freely modified and distributed by device manufacturers, wireless carriers and enthusiast developers. Additionally, Android has a large community of developers writing applications ("apps") that extend the functionality of devices, written primarily in a customized version of the Java programming language. Android's user interface is based on direct manipulation, using touch inputs that loosely correspond to real-world actions, like swiping, tapping, pinching and reverse pinching to manipulate on-screen objects. The response to user input is designed to be immediate and provides a fluid touch interface.

**Thus making it best for the purpose of building an application which may be used at a high level of usage.**

**PROJECT PLAN**

|  |  |  |
| --- | --- | --- |
| **S no** | **Phase** | **Time of Completion** |
| **1.**  **2.**  **3.**  **4.**  **5.** | **Problem Identification**  **Analysis**  **Designing**  **Coding**  **Testing & Debugging**  **Total Time Involved** | **15 Days**  **20Days**  **30 Days**  **55 Days**  **25 Days**  **153 Days (approx. 5 months)** |

**NUMBER OF MODULES**

* 1. **LOGIN MODULE**
  2. **WELCOME USER MODULE-**
* Search Books
* Search Magazines
* Issue Books
* User Profile
* Change Password

1. **ADMIN MODULE-**

* Change Password
* Upload data
* View profile
* Send Message

1. **DOCUMENTS MODULE-**

* Add tutorials
* Add video guides
* Add quiz papers
* Add eBooks

1. **BOOKS MODULE-**

* View books
* View Magazines
* View availability