

**NAGARJUNA COLLEGE OF INFORMATION TECHNOLOGY**  
**TRIBHUVAN UNIVERSITY**  
**INSTITUTE OF SCIENCE AND TECHNOLOGY**

**An Internship Report**  
**on**  
**“Ebooks and Library Management System”**  
**at**  
**Softechpark Pvt. Ltd.**

**Submitted To:**

Department of Computer Science and Information Technology

Nagarjuna College of Information Technology

***In partial fulfillment of the Bachelor's Degree in Computer Science and  
Information Technology***

**Submitted By:**

Bivek Pandey (7682/072)

March 02, 2020

## ***SUPERVISOR’S RECOMMENDATION***

I hereby recommend that the internship report prepared under my supervision by **Bivek Pandey** entitled “**EBooks and Library Management System** ” in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science and Information Technology to be processed for the evaluation.

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## ***CERTIFICATE OF APPROVAL***

The undersigned certify that they have read and recommended to the Department of Computer Science for acceptance, internship project report entitled “**Web development on EBooks and Library Management System at Softechpark Pvt. Ltd.**” submitted by **Bivek Pandey(T.U. Exam Roll No. 7682/072)** in partial fulfillment for the degree of Bachelor of Science in Computer Science & Information Technology.

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Lastly, I offer my best regards and gratitude to all our colleagues, fellow workers and others who supported us in any respect during the completion of the project.

Thanking You,

Bivek Pandey (T.U. Exam Roll No. 7682/072)

## ***ABSTRACT***

This report contains the details of the different activities carried out during the internship conducted for the three months internship duration.

The main focus of this report is Web Based Online Ebook and Library Management System. The “Slibrary” is a Web based application intended for Student and Librarian. The main objective of this website is to make it interactive and its ease of use. It is role-based, multi-user ebook and library management system. It would make searching, viewing detail, checking availability of books and sends email and SMS based notification. Student can view the complete detail of each books send notify on available request if currently unavailable. The website provides a features to a Librarian to add a books and ebooks, update and delete them. The main emphasis lies in providing a user-friendly advance library management system’s feature. This is a system which maintains the information about the books present in the library, their authors, the members of library to whom books are issued, library staff and all.

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## ***LIST OF ABBREVIATIONS***

|           |   |
|-----------|---|
| AJAX      | Asynchronous Javascript and XML                                     |
| BSc. CSIT | Bachelors in Science of Computer Science and Information Technology |
| CMO       | Chief Management Officer  |
| CSS       | Cascading Style Sheets  |
| CTO       | Chief Technical Officer   |
| DFD       | Data Flow Diagram   |
| ER        | Entity Relation   |
| HTML      | Hyper Text Markup Language  |
| IDE       | Integrated Development Environment                                  |
| JS        | Javascript  |
| MVT       | Model View Template   |
| QA        | Quality Assurance   |
| UI        | User Interface  |
| USB       | Universal Serial Bus  |
| XML       | Extensible Markup Language  |

# **CHAPTER 1: INTRODUCTION**

## **1.1 Introduction of Project**

EBooks and Library Management System is a role-based, multiuser, hardware-integrated (USB barcode scanner), online ebook and library management system. The main focus of the system is to provide all the facility that could be provided from advance library to student such as borrowing a books, read a online books, search books, check availability of a books, email and SMS based notifications and information of fines as well as for librarian such as issuing a books to student by scanning a books barcode and student id's barcode, check student activities by scanning a barcode on a individual student id card and print out the fine bills. The system has been designed to computerize and automate the operations performed over the information about the members, book issues and returns and all other operations. The implementation of Ebooks and Library Management System can help human resource officials free themselves from the heavy deskwork to complete some more important work. Library management system is to reduce and solve the cumbersome manual management, so that the library can rise to a perfect electronic management.

When talking about this web application, it contains mainly three different types of users Admin and Librarian and Student. Admin is the one who accounts and has full control over the system. Librarian is the one who can access the Library management platform and upload/update their books, ebooks. Student are the normal users who can track their own library activities through site such as issued books, fine implemented etc.

## **1.2 Problem Statement**

Manual process of keeping student records, book records, account details, managing employees is very difficult task. There are various problems also faced by student in library such as finding any particular books, information whether a book is available or not, when will be the particular book may become available. Sometimes due to some human error there may be a loss or damage of different files that contains the record of the day to day activities of the library which may affect the proper functioning of library. To eliminate this manual system ebooks and library management system has been developed. It will handle all the current issue faced by the student and admin personnel and helps in efficiently functioning of day to day activities of the library system.

### **1.3 Objectives of Study**

The objectives of project are as follows:

- To provide a student an online resources such as online books to read.
- To provide a role-based dynamic content to a user
- A search column to search availability of books
- Librarian is able to search record by using few clicks of mouse and few search keywords thus saving his valuable time.
- Have a facility to upload lectures notes in a pdf file having size not more than 10mb

### **1.4 Scope and Limitation**

#### **1.4.1 Scope**

This system has a great scope in every aspect it can be used to handle an ebook management and student activities within the library. It contains all the advanced feature that is required to maintain entire library of an educational institution or organization. The system has fundamental set of features for adding and/or updating members, adding and/or updating books, getting the list of books, finding out the list of books currently checked out, reserving and borrowing books.

#### **1.4.2 Limitation**

Every system has limitations, this system also has some limitations. Currently the system is developed only for web based platform so, the system can only be accessible through web browser. The system uses third party package named twilio for SMS notification so, the system admin must ensure the sufficient amount of balance account in their twilio account.

### **1.5 Brief Introduction of Organization**

Softechpark Pvt. Ltd. is a IT based outsourcing company, providing a broad range of services and solutions in strategy, consulting, digital and technology since 2018. It is situated in Tinkune, Kathmandu. Softechpark Pvt. Ltd. believe in empowering with information, building relationships and taking social responsibilities. To make software easier for people to use and operate, it performs a huge level of testing and debugging through qualified professionals and native users. The main strategy is to discover and analyze the project to find the best possible solution for a

product that contains all the possible current technologies and methodologies and test them in developer and user level.

Softechpark Pvt. Ltd. mission is to provide a digital solution for database management, data analysis and visualization, website and application development. For each of the solution Softechpark Pvt. Ltd. focuses on making it efficient, user friendly as well as cost effective. Softechpark Pvt. Ltd. works with languages and technologies like PHP with Laravel, Java with spring boot, C# with .NET, React JS, React-Native, WordPress and databases like MYSQL or Postgress and some other development tools.

Softechpark Pvt. Ltd. follows industry standards of software development approach to deliver the highest level of satisfaction to the client. The team keep themselves updated with new tools and technologies available in the market and implement these technology whenever necessary.

### **1.5.1 Services Offered by Organization**

Softechpark Pvt. Ltd. Has been associated to the clients in and out of the country. This company has proven to provide good quality product to it's client. Company makes use of latest technology to design and build software and app for better user experience.

The different service provided by this organization are mentioned below:

#### **1.5.1.1 Website and Web Application Development:**

This company provides services of web design and development for organizations and companies. They make use of modern design and technology to make flexible and attractive web applications. They have been providing web development services to many organizations all over and outside of Nepal since the establishment of company.

#### **1.5.1.2 Mobile Application Development:**

This company also provides android and IOS app development. They develop mobile apps for their ERP software as well as for organizations all over the country. The company consists of skilled Android . IOS and Native mobile application developers for developing efficient mobile applications.

### 1.5.1.3 Desktop Application Development:

This company provides services of desktop application development for organizations and companies. The company consists of skilled Java developers for developing different desktop based applications.

### 1.5.2 Internship Duration

Table1: Internship Duration

|                |                          |
|----------------|--------------------------|
| Office Hour    | 9:00 am – 5:00 pm        |
| Working Hour   | 8 Hours per day          |
| Working Days   | 6 days a week            |
| Position       | Trainee Python Developer |
| Total Duration | 3 months                 |
| Mentor         | Er. Nishar Ali           |

### 1.5.3 Responsibility Assigned

Table 2: Responsibility Assigned

|        |   |
|--------|---|
| Week 1 | Understanding about the company's environment and researching about usage of Django for the development |
| Week 2 | Planning and research about the project.  |
| Week 3 | Database Development for a project according to the user requirement and collaborating with mentor.     |
| Week 4 | Create CRUD operation to add some required features in our web applications.                            |

|         |  |
|---------|--|
| Week 5  | Developing features for Elibrary rendering ebooks in application and preventing to render in browser |
| Week 6  | Integration with the front-end developed by front end developer                                      |
| Week 7  | USB barcode integration.   |
| Week 8  | Dashboard and dynamic data-vizualization for users according to their interest                       |
| Week 9  | Apply additional feature of client after testing   |
| Week 10 | Fixing bug of a project  |
| Week 11 | Testing and validation of final project  |
| Week 12 | Making documentation ready and presentation.   |

#### 1.5.4 Contact Detail

Table 3: Contact Detail of Organization

|              |                           |
|--------------|---------------------------|
| Address      | Tinkune, Kathmandu, Nepal |
| Phone Number | 01-4111992                |
| Email        | info@softtechpark.com     |
| Website      | www.softtechpark.com      |

## CHAPTER 2: SYSTEM ANALYSIS AND FEASIBILITY STUDY

### 2.1 System Analysis

By doing research on the website's common requirements, studying a document of client requirement, design structures, discussing with the senior developers and studying the existing system we analyze the requirements of the system to be developed for the clear view of how the system should be and how it should be working so as to fulfill user requirements. By performing a system analysis and problem identification various information were gathered which were used to develop a proposed system.

### 2.2 Requirement Analysis

This section presents complete set of functional and nonfunctional requirements. Functional requirements are listed first according to their relationship to the overall system. The non-functional requirements are listed after functional requirements. The functional requirements have been specified using natural language description using UML analysis model.

#### 2.2.1 Functional Requirements

The functional requirements of Ebooks and Library Management System are discussed below:

- **Add/Remove/Edit book:** To add, remove or modify a book or book item.
- **Search catalog:** To search books by title, author, subject or publication date.
- **Register new account/cancel membership:** To add a new member or cancel the membership of an existing member.
- **Check-out book:** To borrow a book from the library.
- **Reserve book:** To reserve a book which is not currently available.
- **Renew a book:** To re-borrow an already checked-out book.
- **Return a book:** To return a book to the library which was issued to a member.
- **Notification:** Email and SMS based notification when reserved book is available
- **Invoice:** Provide billing system of a fine amount.
- **Ebooks:** Different electronic books are allowed to read for a members.
- **Hardware integrated:** Books can be issued or returned using a barcode on a library card.



### 2.2.1.1 Use Case Diagram

In E-books and Library Management System, there are three entities: student, librarian and admin/superuser. The admin maintains an account of student or librarian by updating, deleting or deactivating them, adding different category for books, adding the faculty and courses, generating and printing records. The librarian can perform operational task in library such as issue books, return books, allow ebook request, renew a book for student, maintain information related to books and electronic books similarly the student are the normal users they can search books and ebooks information, check availability of books, reserve or cancel reservation, view their fine amount, view their issued records.

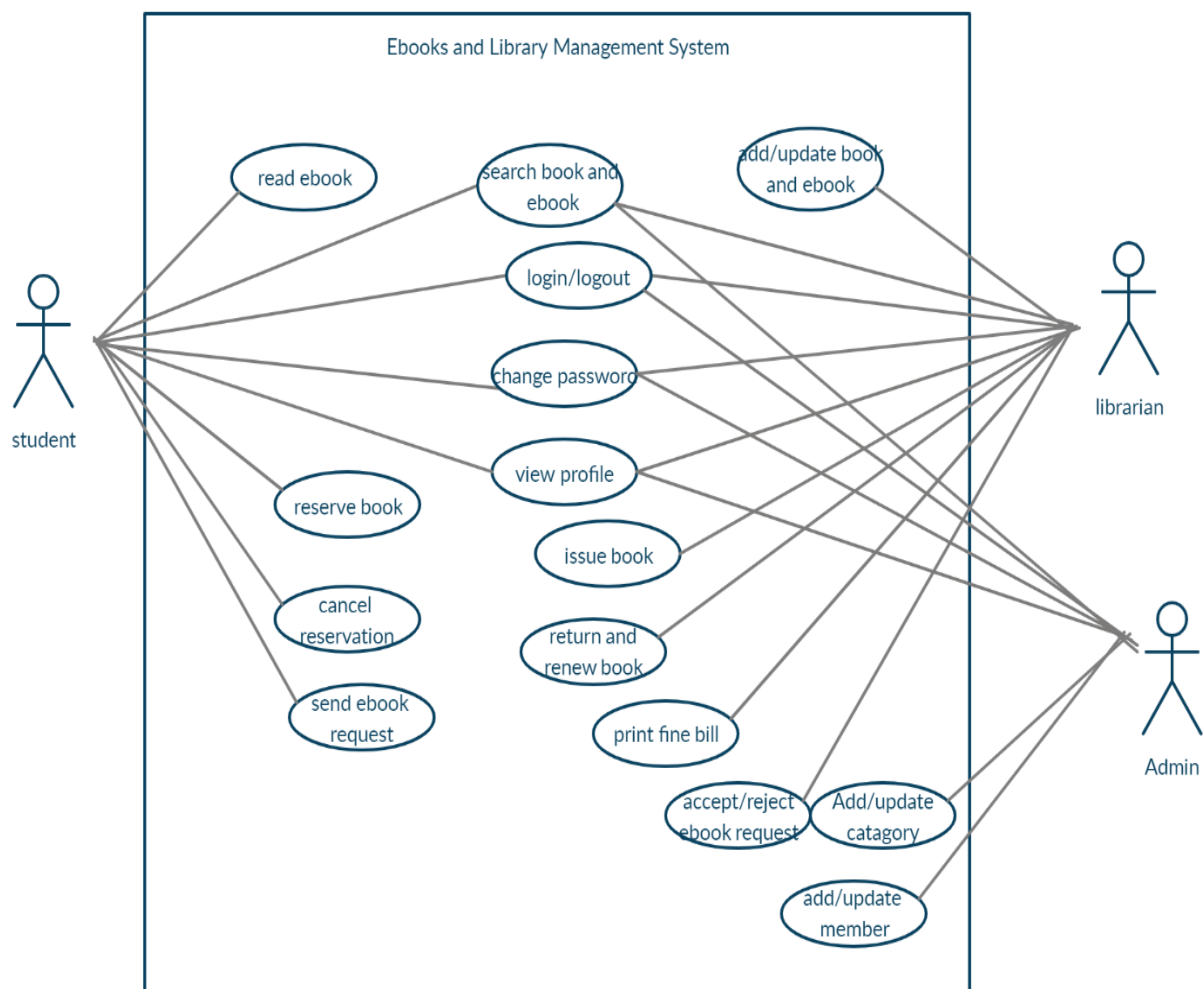


Figure 1: Use Case Diagram of EBooks and Library Management System

### **2.2.2 Non-Functional Requirements**

The non- functional requirements of Ebooks and Library Management System are discussed below:

- Security: Provides a security against a password guessing attack by IP blocking mechanism.
- Platform Independent: Being a web based system, can be accessed and used from multiple platform through web browsers.
- Availability: The system is 27\*7 available.
- Usability: The system is simple and easy to use and has a simple UI.
- Modifiability: The system can be modified and maintained according the business requirements of a users.
- Performance: The system is fast and has a minimal response time.

### **2.2.3 Technical Requirements**

#### **2.2.3.1 Hardware Requirements**

The standard input devices like keyboard and mouse and USB barcode scanner were used to get input. The outputs are generated and displayed on the screen.

#### **2.2.3.2 Software Requirements**

- Platform: Windows
- Programming Language: Python, JS
- Front End: HTML, CSS, AJAX and JS/Jquery
- Back End: Python with Django framework
- Database: Postgress

## **2.3 Feasibility Analysis**

Feasibility Analysis was performed before the actual implementation of the system. The objective of such a study was to ensure a system was legally and technically feasible and economically justifiable. It told us a system is worth the investment.

### 2.3.1 Technical Feasibility

The application was developed using Django framework, Postgress for database and the hardware required was USB barcode scanner. Google Chrome and Firefox were used to run the application for facilitating user interface. So, this system was technically feasible. All the necessary hardware and software required for developing and installing the system were available.

### 2.3.2 Operational Feasibility

Operational feasibility is dependent on human resources available for the project and involves projecting whether the system will be used if it is developed and implemented. Our system makes the maximum use of available resources including people, time and flow of forms. Our system provides reliable services to the client and the user should be familiar about the product they are using. This will enhance reduction in cost and increase in benefits for the business.

### 2.3.3 Schedule Feasibility

A system is said to be scheduled feasible if it is implemented within the planned scheduled. Carried out the study on how much it will take to complete the task after studying the requirements and proposed plan.

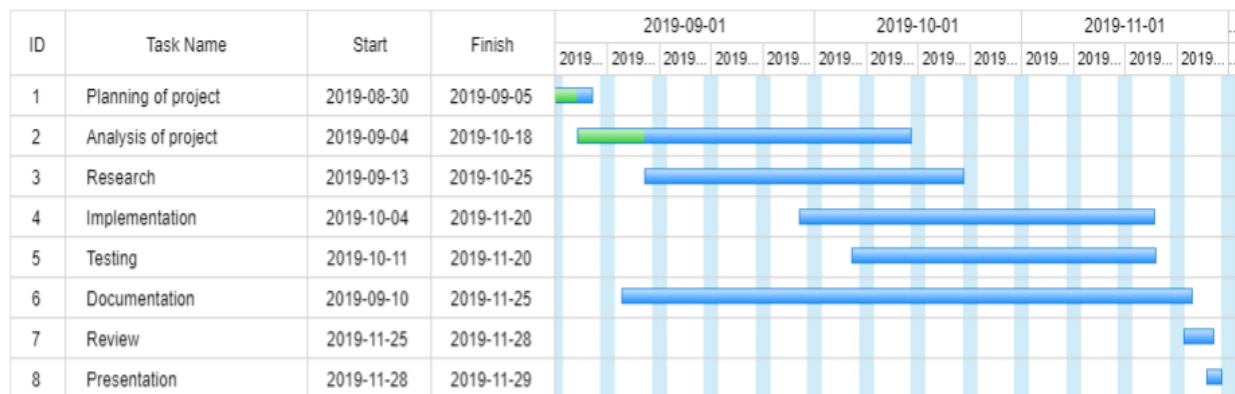


Figure 2: Grantt Chart for Project Scheduling

### 2.3.4 Economic Feasibility

Economic feasibility is the cost and logistical outlook for a business project or endeavor. Various factors were considered affecting the system's economic value and performance and implemented the best one. The application is a digital library based system and so it is economically feasible which means we can make the use of it at feasible cost and get much more benefit from it. It requires not many resources except what we already have along with our knowledge.

### 2.3.5 Legal Feasibility

Legal Feasibility analyzes and deals with various legal issues, contracts, policies, laws and violations that staffs are usually unknown about. No copyright has been violated during the development of system, ensuring system is legal to operate. This was done by going through all the legal requirements of the government of Nepal.

## 2.4 System Analysis Diagrams

### 2.4.1 ER Diagram

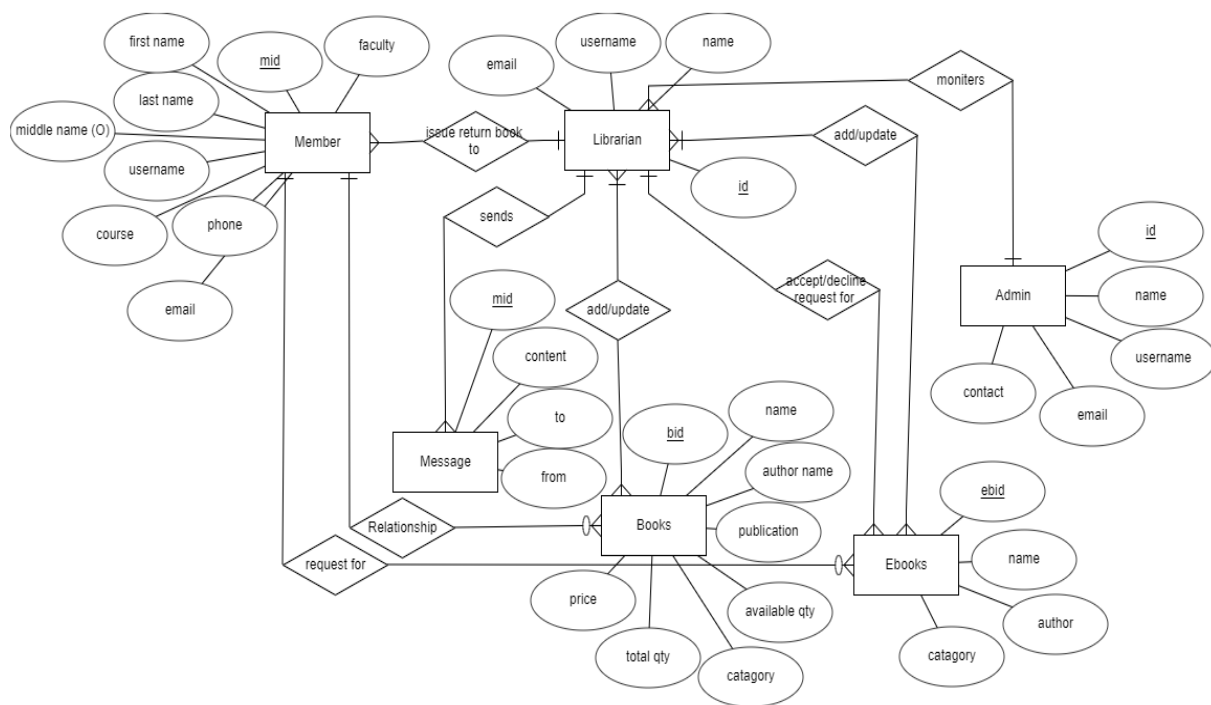


Figure 3: ER Diagram of EBooks and Library Management System

### 2.4.2 Flow Chart

The flow chart illustrates the book issuing mechanism of Ebooks and Library Management System where the barcode of particular book and student library card is scanned by a librarian using USB barcode scanner integrated to a system. If a book is currently available then the system checks whether a maximum quota of issued books is exceeded or any previous fine due is implemented to particular user by using a validation module. If student passes a validation module then a system create book checkout transaction and decrement a available stock of a book in a database and increment the issuing quota of a particular student else the proper error message is displayed by a system.

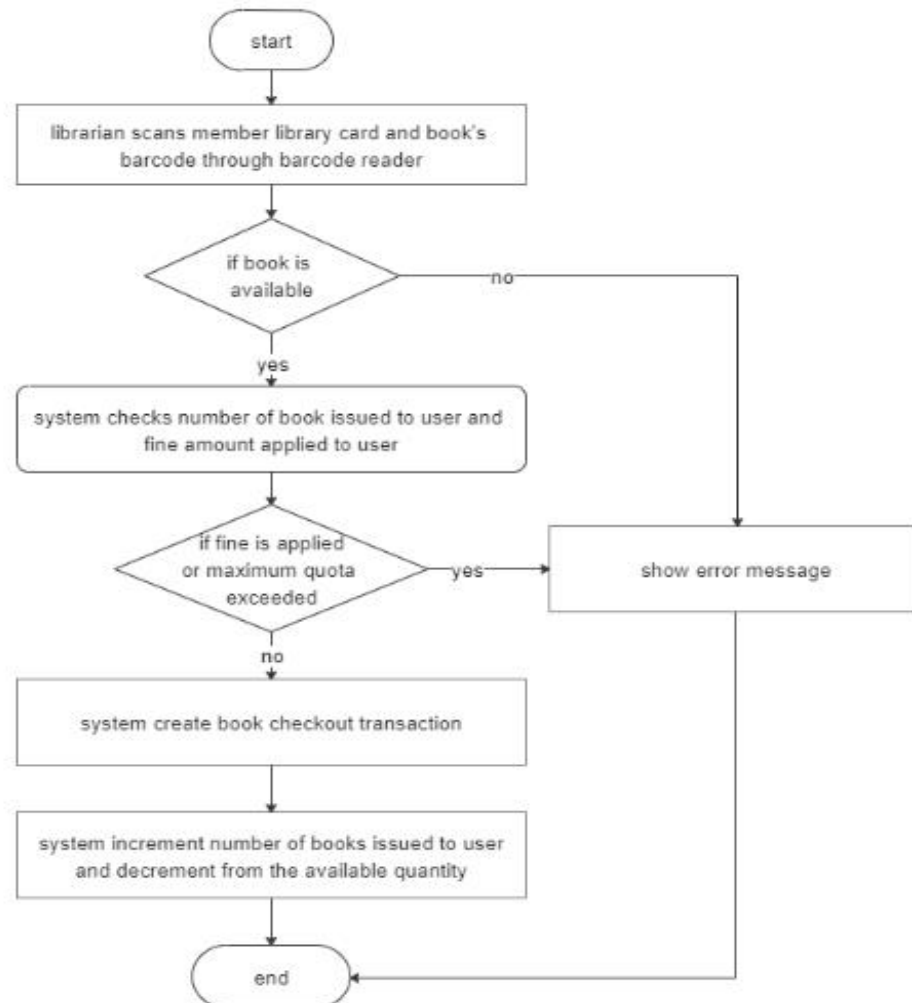


Figure 4: Flowchart to Issue Book of EBooks and Library Management System

The flow chart illustrates the book returning mechanism of Ebooks and Libraray Management System where the barcode of student library card is scanned by a librarian using USB barcode scanner integrated to a system. After scanning a library card the system redirect to a user detail page with all issued records and whether a due date is exceeded and fine implemented for issued book of particular student. If fine is not implemented then the available stock of book is incremented else transaction for fine collection is created and notification will be send to a student who have reserved a particular book.

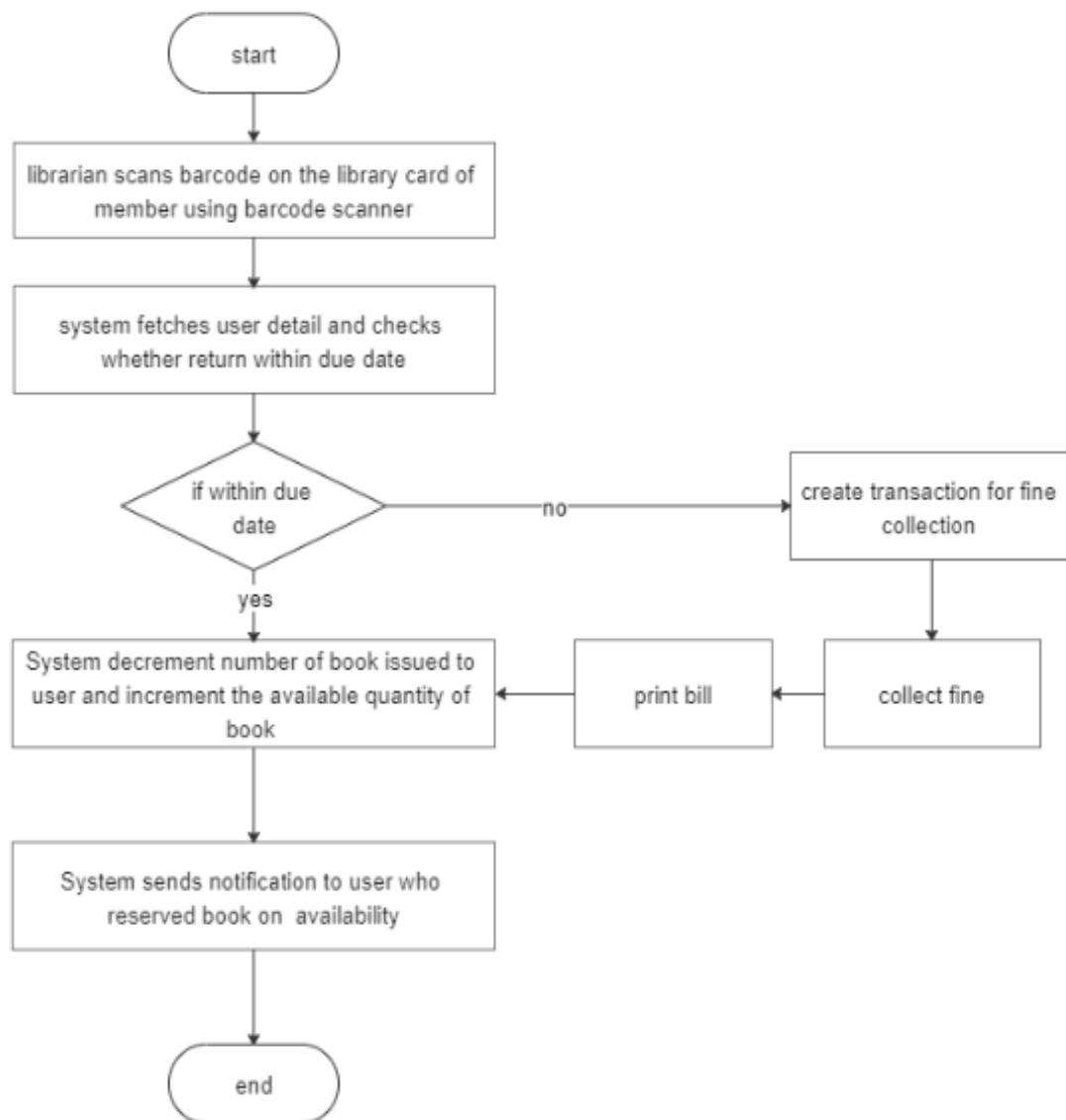


Figure 5: Flowchart to Return Book of EBooks and Library Management System

## CHAPTER 3: SYSTEM DESIGN

The system is web based where user request are handled by a backend server and runs through a web browser. All the operational data and records are stored in central database of an organization. Role has been assigned for all system users. The system consist of multiple database tables to store operational data and account information. During authentication ,the authentication module checks user credentials and role in database and based on user role the content are displayed. The system design can be further explained in terms of Architectural design, Database design and Interface design.

### 3.1 Architectural Design

Being a role-based system, the system consist of 3 different users, based on user roles different authorities have been assigned. Admin has full access over a system and generally handles account related activities .Where as librarian are responsible for maintaining a day to day functionalities of library. All the records and operational data of an organization/institution are stored in central database which is extracted by the system and display to a users depending upon user's request. Student are normal users who can only track their individual activities. The User request is passed to a backend server and backend server responds with user requested data in a form of web page.

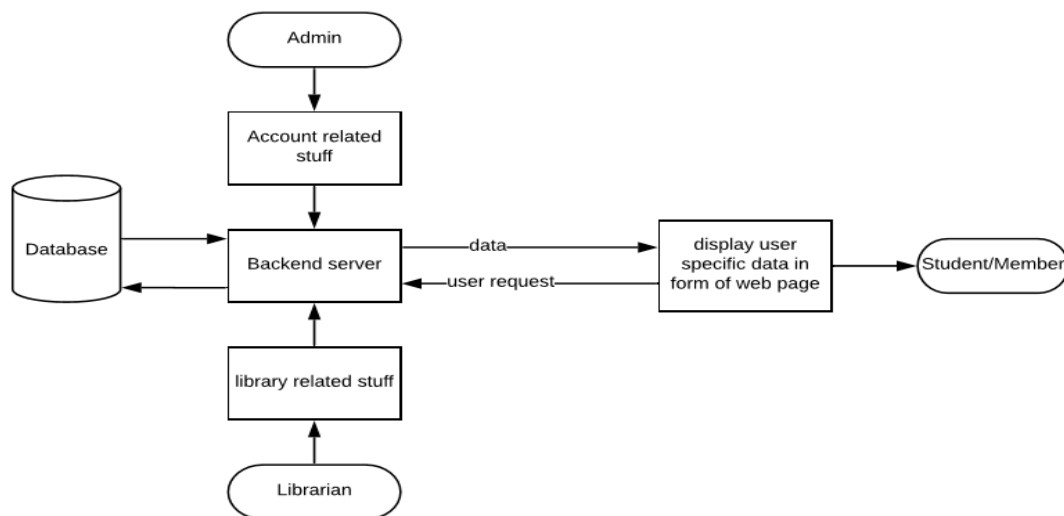


Figure 6: Architectural Design of EBooks and Library Management System

## 3.2 Database Design

Database design is the part of system development. Since the data is stored in Postgress database, the database takes the data from multiple forms. The table is multiple so there is relationship among other table.

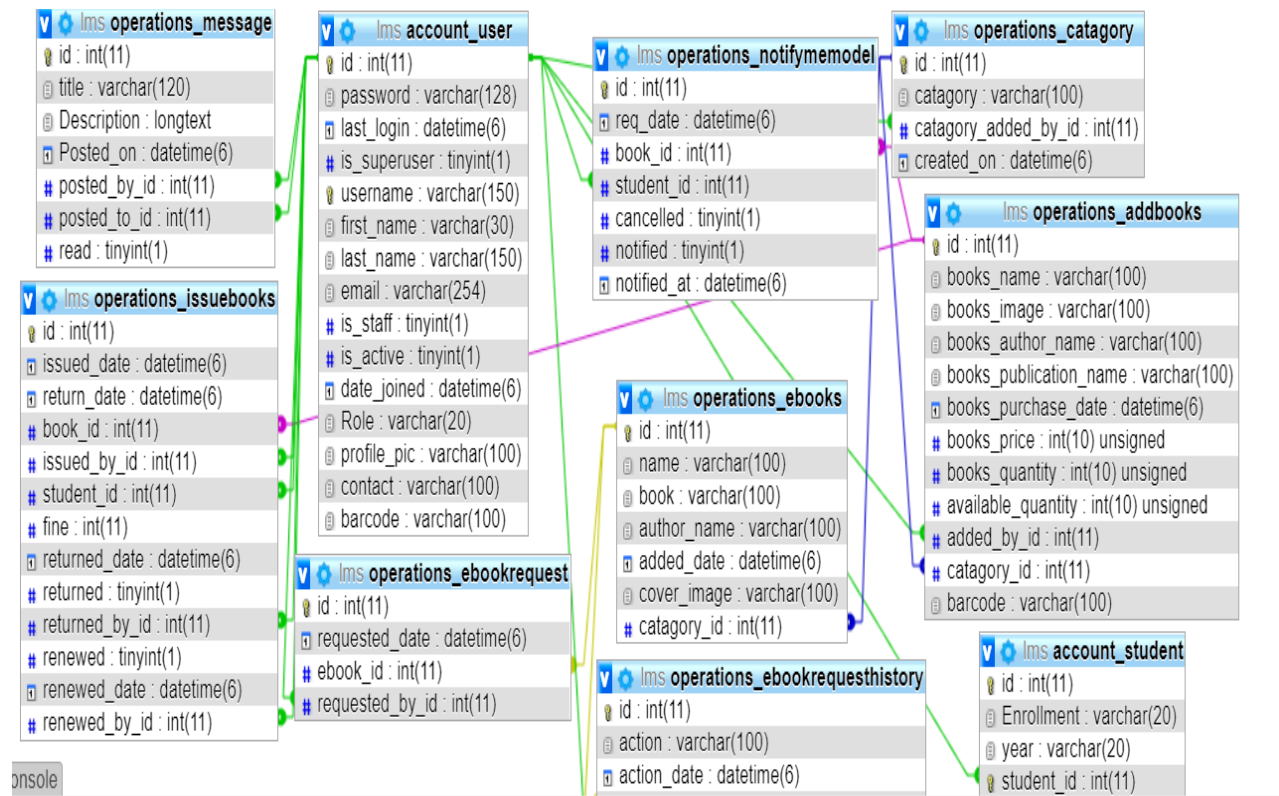


Figure 7: Table Format of EBooks and Library Management System

## 3.2 Interface Design

This is the way of representing how the system looks and how the data flow in the system along with the reference of the screen being displayed. There are three parts in the design. Top part represents the current screen number, the middle one represents the screen title or description and the bottom one represents the location of screen, which references the current screen. Here, after opening the system, the tasks that are done in the system are represented below:



### **3.2.1 Student Interface Design**

Student Interface is the interface where student can access and view the permitted data and perform permitted actions.

The Student can

- View their issued books
- Search Books and Ebooks
- Check availability of books
- Reserve unavailable books
- Cancel their reservations
- View whether fine is implemented or not.
- Send request for ebooks

### **3.2.2 Librarian Interface Design**

Librarian Interface is the interface where librarian can access and view the permitted data and perform permitted actions.

The Librarian can

- Create, Edit, Delete books and ebooks.
- Activate/Deactivate student account.
- Change their profile and passwords
- Allow/Deny the request of ebooks
- Issue/return books

### **3.2.3 Admin Interface Design**

Admin Interface is the interface where Admin can access and view the content, Admin has the full privilege over a system

The Admin Can

- Can Edit/Delete student and librarian Account
- Create, Edit, Delete Category, Faculty and Courses list
- View day to day activities records

### 3.3 Sequence Diagram

The sequence diagram of Ebooks and Library Management System shows a operation carried out between actors i.e Admin, Librarian, and Student and objects i.e Authentication System, Library Management System and Database System. A call message is sent from actors to a Authentication System with login credentials to validate login and Library Management System sends return message with validation success information. After validation Student actor sends search book and ebook, reserve book call message to Library Management System which interact with database system and return with return message with data response from database. Similary Librarian sends call message to issue and return book and receives return message from a system after records created to Database System.

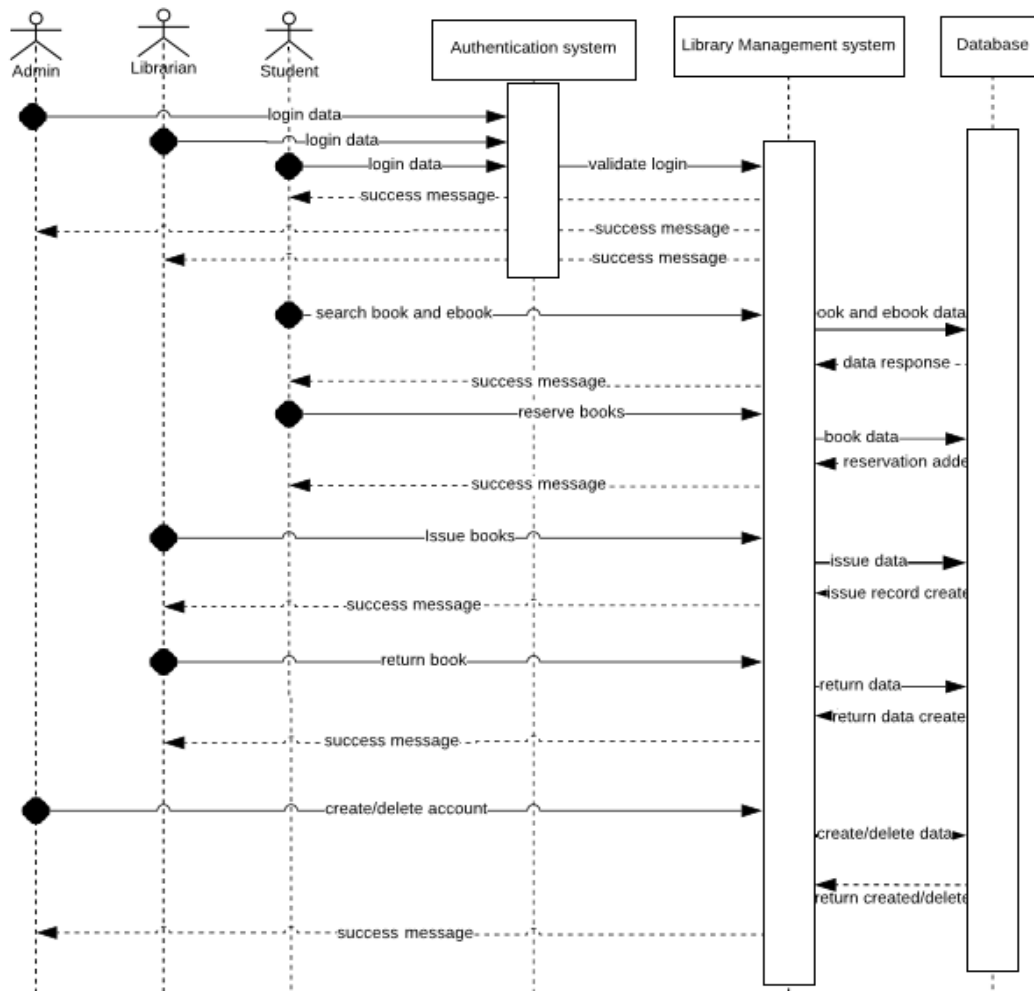


Figure 8: Sequence Diagram of EBooks and Library Management System

## **CHAPTER 4: IMPLEMENTATION AND TESTING**

### **4.1 Implementation**

Implementation phase is one of the important phases of project development. In this phase we implement our conceptual design into the working program by using various tools. The successful implementation of project was nearer steps towards the project completion. Project implementation was not an easy step to us as we encountered various issues related to the programming logic as challenges.

#### **4.1.2 Tools Used**

Front end

- Html and CSS were used to build website design.
- Javascript/Jquery were used to make interactive.

Back end:

- Postgress was used for creating and managing the database.
- Django was used as a server side language for development of system.

Documentation Tools:

- Edraw max was used for designing of:
  - Data flow diagram
  - Use Case diagram
  - Interface design diagram
  - ER diagram
  - Flow Chart
- MS Word was used as a text editor for documentation process.
- Sublime Text 3 was used as IDE for coding.

#### **4.1.3 Development Methodology**

Waterfall model was followed for developing the system. The different phases that are required in this development methodology are requirement analysis, system design, implementation, testing,

development and maintenance. The Project Manager and QA analyze all the functional and non-functional requirement of the system that needs to be developed. Knowing the requirements for the system we get a clear understanding and view about what the system is supposed to be.

After knowing the requirements for the system, now we define the overall architecture of the system through designs like, ER diagram, DFD, Database schemas, etc. Python language was used for the implementation of the system. For the data storage Postgress was used. while Python Anywhere a cloud based server is decided for deployment.

## 4.2 Testing

The testing of Ebooks and Library Management System was carried out by different manual and automated testing tools to ensure each component works properly, following test procedure was applied to ensure the proper functionality of a system.

### 4.2.1 Test Case

Table 4: Test Cases

| SN | Test Case Name             | Test Procedure                    | Expected Result                                 | Outcome |
|----|----------------------------|-----------------------------------|---|---------|
| 1  | Registration Form Test     | Create Account                    | Empty fields must generate error                | Success |
| 2  | Login Form Test            | Login with unregistered account   | Must show error message                         | Success |
| 3  | Login Form Test            | Login with registered account     | Login success Message and redirect to home page | Success |
| 4  | Add Book and Ebook Test    | Add book and ebook to database    | Data should be added to database                | Success |
| 5  | Update Book and Ebook Test | Update book and ebook in database | Update records                                  | Success |

|    |  |  |   |         |
|----|--|--|---|---------|
| 6  | Delete Book and Ebook                            | Delete from database.  | Data should be deleted from database  | Success |
| 7  | Barcode Input Test                               | Taking input from books and student barcode.                         | Input from a barcode to a form field  | Success |
| 8  | Return Book Using Barcode from Student Card Test | Scan barcode from student library/id card                            | Redirect to student issued records  | Success |
| 9  | SMS and Email Sending Test                       | Send to SMS and Email to reserved student according to reserved date | Sends Email and SMS to student  | Success |
| 10 | Password Change Test                             | Provide new password   | Password changed successful message   | Success |
| 11 | Forget Password Test                             | Click on a forget password link                                      | Email to a users Email address with a password resetting link   | Success |
| 12 | Dashboard Record Test                            | a)Return a Issued Book<br>b) Issue a book                            | a)Todays Returned's count must be incremented by 1<br>b) Todays Issued's count must be incremented by 1 | Success |
| 13 | IP Blocking Test                                 | Login with invalid password six times                                | Redirect to blocked page for particular account on particular IP address                                | Success |
| 14 | Ebook Readability Test                           | Allow a user request for ebook                                       | Readability Boolean field in database must be True.   | Success |

## **CHAPTER 5: CONCLUSION AND LESSON LEARNT**

### **5.1 Conclusion**

In current context, the increasing information Technology has built up the software development trend. To follow the trend internship provides a bridge for the industrial environment for the undergraduate to learn and experience the real world. Internship has helped in adapting well to working under pressure. Working with multiple features in a single week-long sprint and handling immediate and urgent bugs have assisted in enhancing professionalism to meet deadlines. The technical tasks that were undertaken during the internship period have helped the intern in improving software development and debugging skills. It has helped in gaining knowledge about various technical tools and frameworks used in software development and the process that should be followed for proper development completion. Working as an intern in one of the popular IT companies of Nepal, has boosted the confidence and has polished the professional as well as soft skills of the intern in the IT sector. As whole, this report includes project and the internship experiences, findings, knowledge and the technical skills.

### **5.2 Lessons Learnt**

Through the internship from Softechpark Pvt. Ltd., the lessons learnt were:

- Importance of time management and working with multiple features under pressure to meet deadlines.
- Immediate handling of urgent bugs and fixing them.
- Understanding the differences between theoretical and practical knowledge.
- Working in team with coordination and cooperation to make quality decisions.
- Working as Python\ Django Developer can have a potential career.

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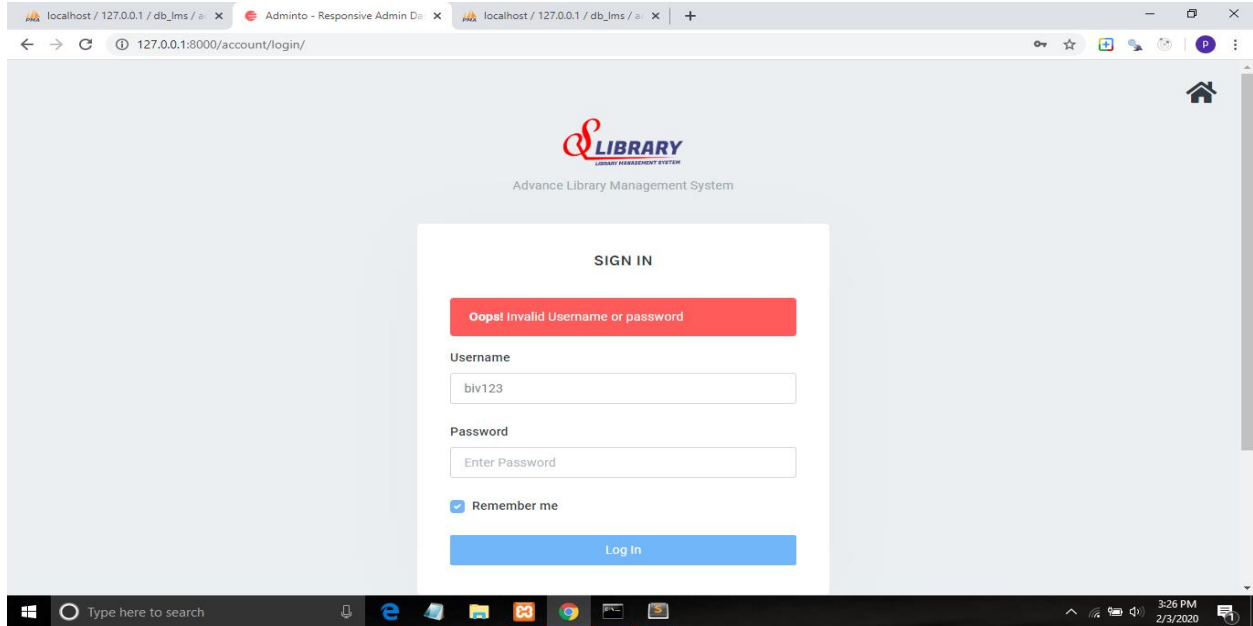
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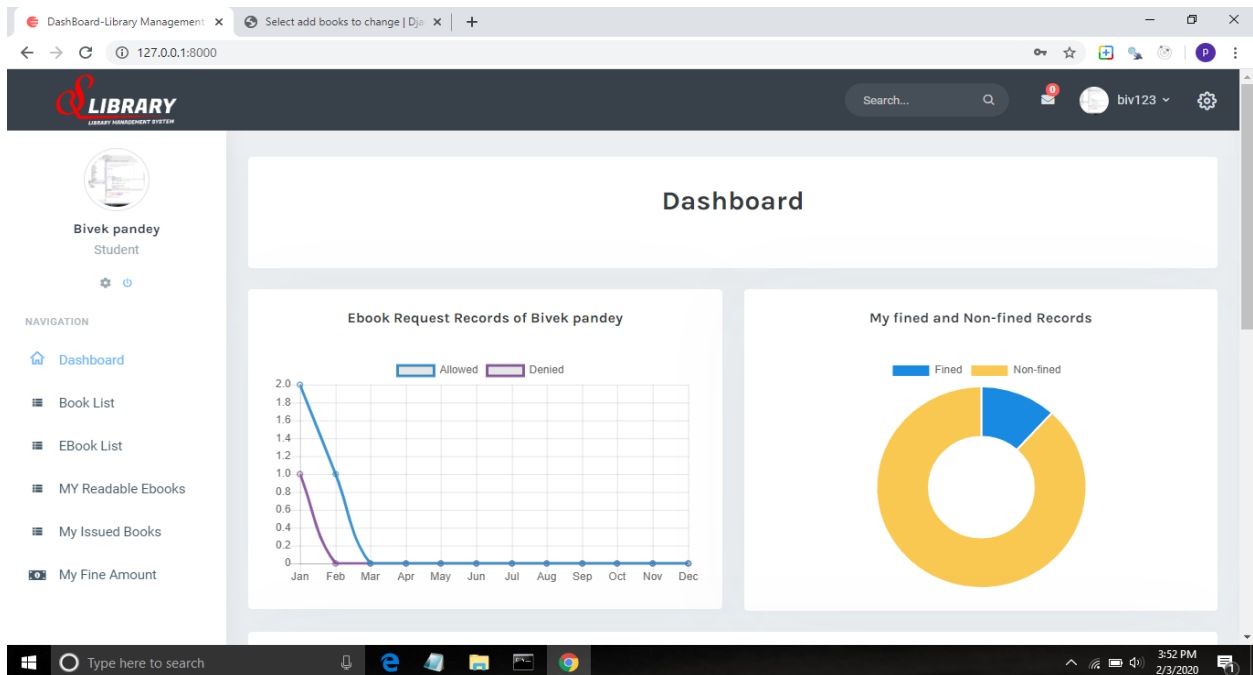
Watchdox: online library system. (2011, May 10). Retrieved from <https://www.watchdox.com/>

# APPENDIX-I:SCREENSHOTS

## 1 Login Page



## 2 Student Dashboard





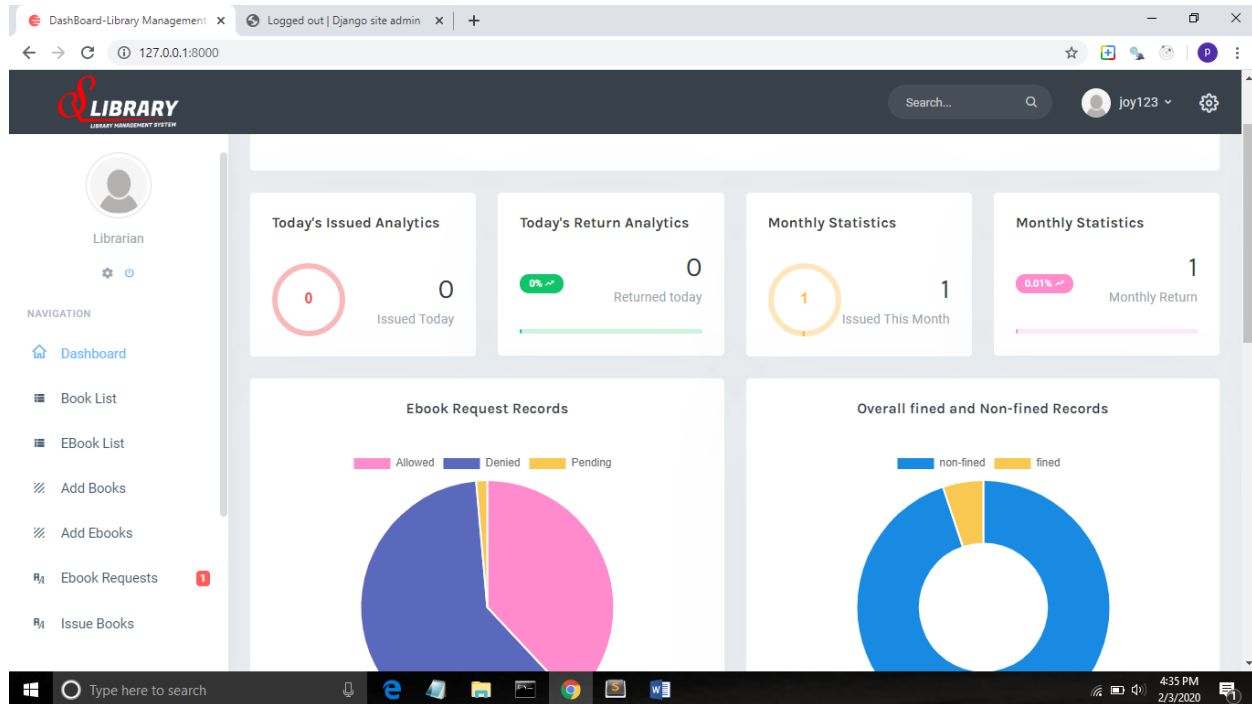
### 3 Book Reserving

The screenshot shows a web browser window with the URL `127.0.0.1:8000/displaybooks`. The page is titled "LIBRARY LIBRARY MANAGEMENT SYSTEM". On the left, a sidebar shows the user profile "Bivek pandey Student" and a navigation menu with options: Dashboard, Book List, EBook List, MY Readable Ebooks, My Issued Books, and My Fine Amount. The main content area is titled "Multi item selection" and features a "Categories" dropdown menu. Below this, there is a table with columns "ID", "Books Name", "Availability", and "Detail". A search bar contains the text "database system". A modal dialog box is displayed in the center of the screen with the message "You will be notified when this book is available" and an "OK" button. The table shows one entry with ID 17 and the book name "Database S". The status "Unavailable" is shown in red, and a "Notify on Available" button is present. The bottom of the screen shows a Windows taskbar with the time 3:52 PM on 2/3/2020.

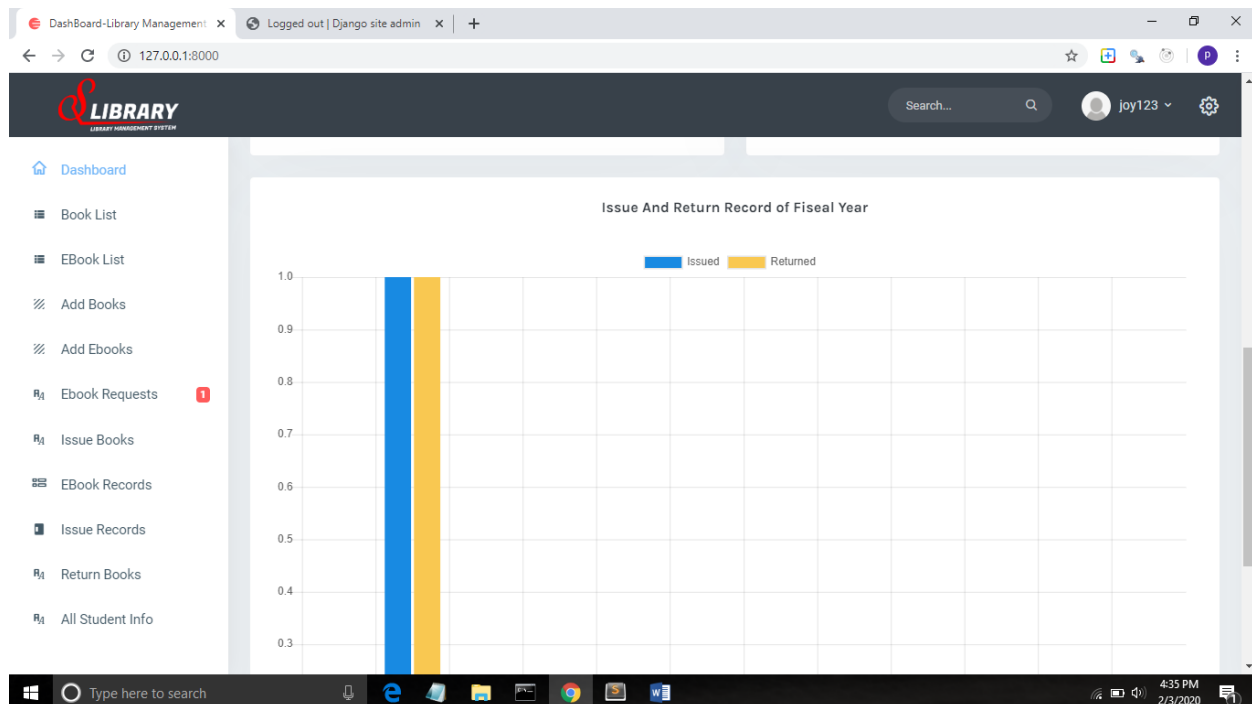
### 4 Rendering Ebooks

The screenshot shows a web browser window with the URL `127.0.0.1:8000/list-ebooks/18/view`. The page is titled "LIBRARY LIBRARY MANAGEMENT SYSTEM". On the left, a sidebar shows the user profile "Bivek pandey Student" and a navigation menu with options: Dashboard, Book List, EBook List, MY Readable Ebooks, My Issued Books, and My Fine Amount. The main content area displays the title "2067" and "Section A ( $2 \times 10 = 20$ )". Below this, there is a section titled "1. Discuss the feature of Object-Oriented Programming? Differentiate between Object Oriented Programming and Procedural Based Programming." followed by the text "Different features of object oriented programming are explained here below:". The text is followed by two paragraphs: "Object:" and "Class:". The "Object:" paragraph states: "Objects are the entities in an object oriented system through which we perceive the world around us. We naturally see our environment as being composed of things which have recognizable identities & behavior. The entities are then represented as objects in the program. They may represent a person, a place, a bank account, or any item that the program must handle." The "Class:" paragraph states: "Object consists of data and function tied together in a single unit. Functions are used to manipulate on the data. The entire construct of objects can be represented by a user defined data type in programming. The class is the user defined data type used to declare the objects. Actually objects are the variable of the user defined data type implemented as class. Once a class is defined, we can create any number of objects of its type. Each object that is created from the user defined type implemented as class is associated with the data type of that class." The bottom of the screen shows a Windows taskbar with the time 4:13 PM on 2/3/2020.

## 5 Librarian Dashboard



## 6 Librarian HomePage



## 7 Student List

The screenshot shows the 'All Student Information' page in the Library Management System. The interface includes a sidebar with the user profile 'harihar rana Librarian' and a navigation menu. The main content area displays a table of student records with columns: ID, Firstname, Lastname, Username, Contact, Get Barcode, Status, detail, and Action. A search bar at the top right contains the text 'biv'. Below the table, it indicates 'Showing 1 to 1 of 1 entries (filtered from 14 total entries)'. The footer shows 'Powered By Softechpark' and links for 'About Us', 'Help', and 'Contact Us'.

LIBRARY LIBRARY MANAGEMENT SYSTEM

harihar rana Librarian

NAVIGATION

- Dashboard
- Book List
- EBook List
- Add Books
- Add Ebooks
- Ebook Requests
- Issue Books

All Student Information

Show 5 rows [icon] [icon] [icon] [icon] (all) (selected)

Search: biv

| ID | Firstname | Lastname | Username | Contact    | Get Barcode | Status | detail | Action |
|----|-----------|----------|----------|------------|-------------|--------|--------|--------|
| 15 | Bivek     | pandey   | biv123   | 9844700852 | [icon]      | Active | detail | [icon] |

Showing 1 to 1 of 1 entries (filtered from 14 total entries)

Previous 1 Next

Powered By Softechpark

About Us Help Contact Us

## 8 Book List

The screenshot shows the 'Book List' page in the Library Management System. The interface includes a sidebar with the user profile 'harihar rana Librarian' and a navigation menu. The main content area displays a table of book records with columns: ID, Books Name, Books Image, Author Name, Publication Name, Total Quantity, and Available Quantity. A search bar at the top right contains the text 'web'. Below the table, it indicates 'Showing 1 to 1 of 1 entries (filtered from 10 total entries) 1 row selected'. The footer shows 'Powered By Softechpark' and links for 'About Us', 'Help', and 'Contact Us'.

LIBRARY LIBRARY MANAGEMENT SYSTEM

harihar rana Librarian

NAVIGATION

- Dashboard
- Book List
- EBook List
- Add Books
- Add Ebooks
- Ebook Requests
- Issue Books

Categories + Create New

Show 5 rows [icon] [icon] [icon] [icon] (all) (selected)

Search: web

| ID | Books Name     | Books Image | Author Name | Publication Name | Total Quantity | Available Quantity |
|----|----------------|-------------|-------------|------------------|----------------|--------------------|
| 5  | Web Technology | [icon]      | Simin Ford  | Asia Publication | 5              | 5                  |

Barcode [icon]

Edit/Delete [icon] [icon]

Detail detail

Showing 1 to 1 of 1 entries (filtered from 10 total entries) 1 row selected

Previous 1 Next

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About Us Help Contact Us

## 9 Add Ebooks Page

The screenshot shows a web browser window with the URL `127.0.0.1:8000/add-ebooks/`. The page is titled "Add EBooks" and is part of a "LIBRARY LIBRARY MANAGEMENT SYSTEM". The user is logged out as "joy123". The left sidebar shows a navigation menu with options: Dashboard, Book List, EBook List, Add Books, Add Ebooks (highlighted), Ebook Requests, and Issue Books. The main content area contains the following form fields:

- Name\* (text input)
- Book\* (file upload button labeled "Choose File", status: "No file chosen")
- Cover image\* (file upload button labeled "Choose File", status: "No file chosen")
- Author name\* (text input)
- Catagory\* (dropdown menu)
- Submit (button)

The Windows taskbar at the bottom shows the time as 4:51 PM on 2/3/2020.

## 10 Add Books Page

The screenshot shows a web browser window with the URL `127.0.0.1:8000/addbooks`. The page is titled "Add Books" and is part of a "LIBRARY LIBRARY MANAGEMENT SYSTEM". The user is logged out as "joy123". The left sidebar shows a navigation menu with options: Dashboard, Book List, EBook List, Add Books (highlighted), Add Ebooks, Ebook Requests, and Issue Books. The main content area contains the following form fields:

- Books name\* (text input)
- Books image\* (file upload button labeled "Choose File", status: "No file chosen")
- Books author name\* (text input)
- Books publication name\* (text input)
- Books price\* (text input)
- Books quantity\* (text input)
- Catagory\* (dropdown menu)

The Windows taskbar at the bottom shows the time as 4:51 PM on 2/3/2020.

## 11 Change user password page

127.0.0.1:8000/account/change-  
Change user | Django site admin  
127.0.0.1:8000/account/change-password/

**LIBRARY**  
LIBRARY MANAGEMENT SYSTEM

Search...

Harihar123

**harihar rana**  
Librarian

NAVIGATION

- Dashboard
- Book List
- EBook List
- Add Books
- Add Ebooks
- Ebook Requests
- Issue Books

**Change Password**

Old password\*

New password\*

- Your password can't be too similar to your other personal information.
- Your password must contain at least 8 characters.
- Your password can't be a commonly used password.
- Your password can't be entirely numeric.

New password confirmation\*

Change password

Powered By Softechpark

About Us Help Contact Us

Type here to search

10:00 PM  
3/3/2020

## 12 Admin Dashboard

