

# **C B Patel Computer College & J.N.M Patel Science College**



## **Documentation For Advanced Web Project “ Library Management System ”**

Submitted By:

**LAHEJATWALA SHIV KAMLESH**

**5114**

**SPID - 2020028123**

Subject:

**506: Practical and Project**

**(Advanced Web Designing)**

## **Student Information**

**Name : Lahejatwala Shiv Kamlesh**

**Roll No : 5114**

**SPID No : 2020028123**

**Class : TYBCA – 2**

**Semester : 5<sup>th</sup>**

**Guided By : Mrs. Vaishali Dindoliwala Ma'am**

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## INTRODUCTION

- Main users of this system is Librarian and Students.
- This Project is based on Web using PHP,HTML & CSS in front End and In Back end-MySQL.
- Library provides facility and peaceful atmosphere to students.
- Students can take books easily and get new books as they demand in future.
- Library is the collection of different types of books.
- It provides books for large number of readers
- Thus we need software for managing the library
- Library Management System software provides the systemic handling the records of books and readers.

# TECHNOLOGY USE

- **Front End Details :**

The Front End tool is used to give a graphical user interface to the system. Through this, we can make a system user-friendly and more capable. I have chosen PHP,HTML, CSS, and JavaScript as front-end tools. Because it is all open source technology, it is freely available and more familiar with any type of database.

## 1. **HTML :**

HTML or Hyper Text Markup Language is the main markup language for creating web pages and information that can be displayed in a web browser.HTML is written in the form of HTML elements consisting of tags enclosed in angle brackets (like <html>), within the web page content. HTML tags most commonly come in pairs like <h1> and </h1> , although some tags represent empty elements and so are unpaired, for example <img> . The first tag in a pair is the start tag, and the second tag is the end tag (they are also called opening tags and closing tags). In between these tags web designers can add text, further tags, comments and other types of text-based content. The purpose of a web browser is to read HTML documents and compose them into visible or audible web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page.HTML elements form the building blocks of all websites. HTML allows images and objects to be embedded and can be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. It can embed scripts written in languages such as JavaScript which affect the behavior of HTML web pages.

## 2. **CSS :**

Cascading Style Sheets(CSS) is a style sheet language used for describing the look and formatting of document written in a markup language. While most often used to style web pages and interfaces written in HTML and XHTML, the language can be applied to any kind of XML document, including XML, SVG and XUL. CSS is a cornerstone specification of the web and almost all web pages use CSS style sheets to describe their presentation.CSS is

designed primarily to enable the separation of document content from document presentation, including elements such as the layout, colors , and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification

### 3. **JavaScript :**

JAVA SCRIPT- JavaScript(JS) is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client side scripts to interact with the user, control the browser, communicate asynchronously, and alter the document content that is displayed. It is also being used in server-side programming, game development and the creation of desktop and mobile applications. JavaScript is a prototypebased scripting language with dynamic typing and has first-class functions. Its syntax was influenced by C. JavaScript copies many names and naming conventions from Java, but the two languages are otherwise unrelated and have very different semantics. The key design principles within JavaScript are taken from the Self and Scheme programming languages. It is a multi paradigm language, supporting object-oriented, imperative, and functional programming styles. The application of JavaScript to use outside of web pages—for example, in PDF documents, site-specific browsers, and desktop widgets—is also significant. Newer and faster JavaScript VMs and platforms built upon them (notably Node.js) have also increased the popularity of JavaScript for server-side web applications.

### 4. **PHP :**

PHP is a server-side scripting language designed for web development but also used as a general-purpose programming language. PHP is now installed on more than 244 million websites and 2.1 million web servers. Originally created by 15 Rasmus Lerdorf in 1995, the reference implementation of PHP is now produced by The PHP Group. While PHP originally stood for Personal Home Page, it now stands for PHP: Hyper text Pre processor, a recursive backronym. PHP code is interpreted by a webserver with a PHP processor module, which generates the resulting web page: PHP commands can be embedded directly into an HTML source document rather than calling an external file to process data. It has also evolved to include a command-line interface capability and can be used in standalone graphical applications. PHP is free software released under the PHP License. PHP can be deployed on most web servers and also as a standalone shell on almost every operating system and platform, free of charge.

PHP is one of the most popular server side scripting languages running today. It is used for creating dynamic Web Pages that interact with the user offering customized information. PHP offers many advantages; it is fast, stable, secure, easy to use and open source (free).

- User friendly
- GUI
- Separation of work ( designing & coding)
- Written once run anywhere
- PHP API

- **Back End Details :**

Back end part of a system is more important because it controls all the internal process of a system. I have choose oracle database as back end. Because it is word's Most Capable relational database and provide more security than others.

### **1. MySQL:**

MySQL is the world's most popular open source database software, with over 100 million copies of its software downloaded or distributed throughout its history. With its superior speed, reliability, and ease of use, MySQL has become the preferred choice for Web, Web 2.0, SaaS, ISV, Telecom companies and forward-thinking corporate IT Managers because it eliminates the major problems associated with downtime, maintenance and administration for modern, online applications. MySQL("My S-Q-L", officially, but also called "My Sequel") is (as of July 2013) the world's second most widely used open-source relational database management system (RDBMS). It is named after cofounder Michael Widenius daughter, My. The SQL phrase stands for Structured Query Language. MySQL was owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, now owned by Oracle Corporation .MySQL is a popular choice of database for use in web applications, and is a central component of the widely used LAMP open source web application software stack (and other 'AMP' stacks). LAMP is an acronym for "Linux, Apache, MySQL, Perl/PHP/Python."

## Objective

- **To save the time and resources :**

The new system will take less time in entering the data, processing it and getting its output. Fewer resources will be used as no large registers, files, Ledgers, pens; correctors will be needed or used.

- **To make the processing faster :**

Less time will be taken to process the data. This will help to do more jobs in less time.

- **To reduce the number of workers :**

After the system will be computerized only a single computer operator will be needed to operate the system while now more than one workers work in the system.

- **Reduce the work load:**

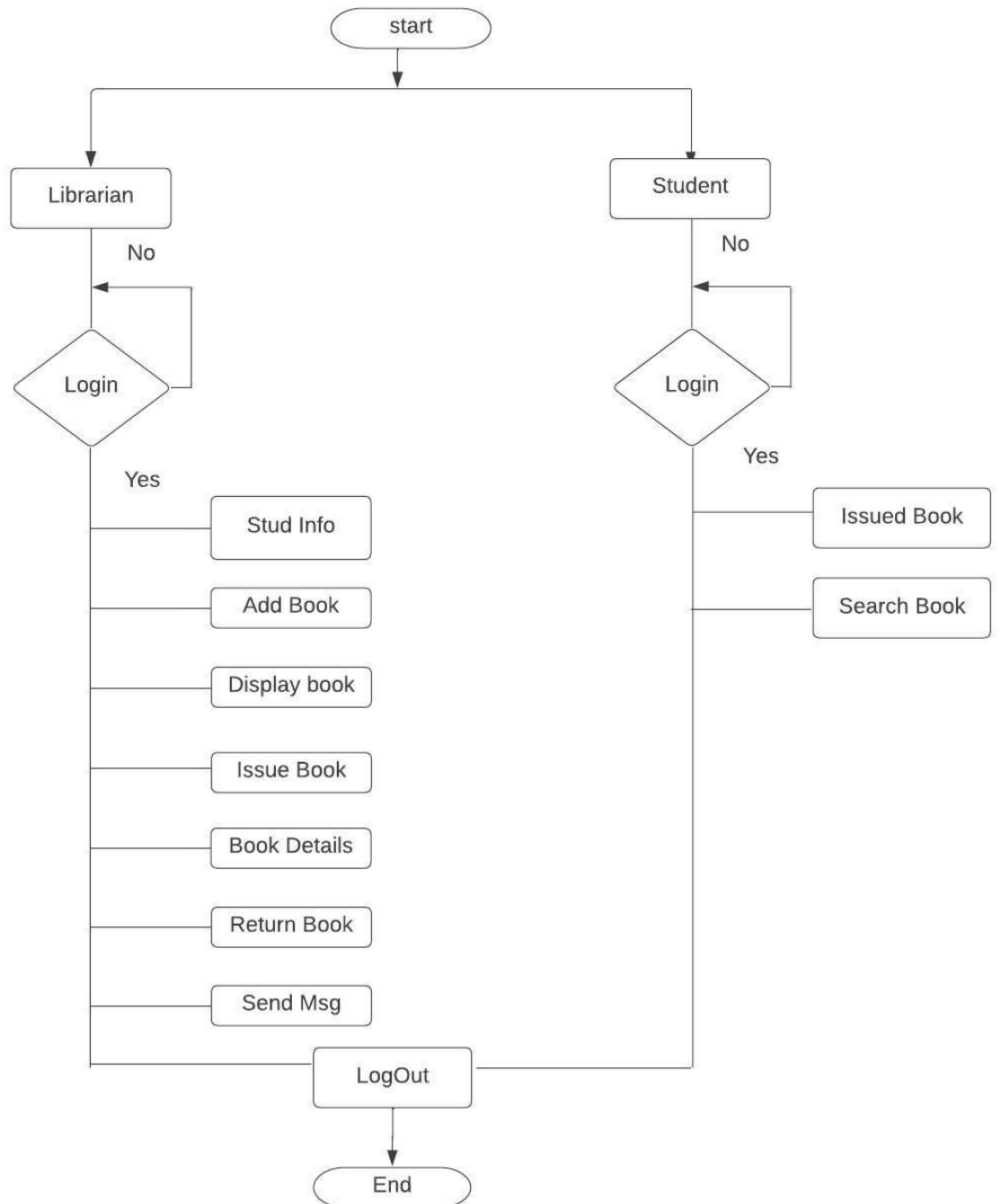
As the new system will be computerized, the database will be automatically updated at the time of entry. Everything will be done automatically just by clicking few buttons. There will be no need to maintain any files or registers.

- **Easy to manage inventory :**

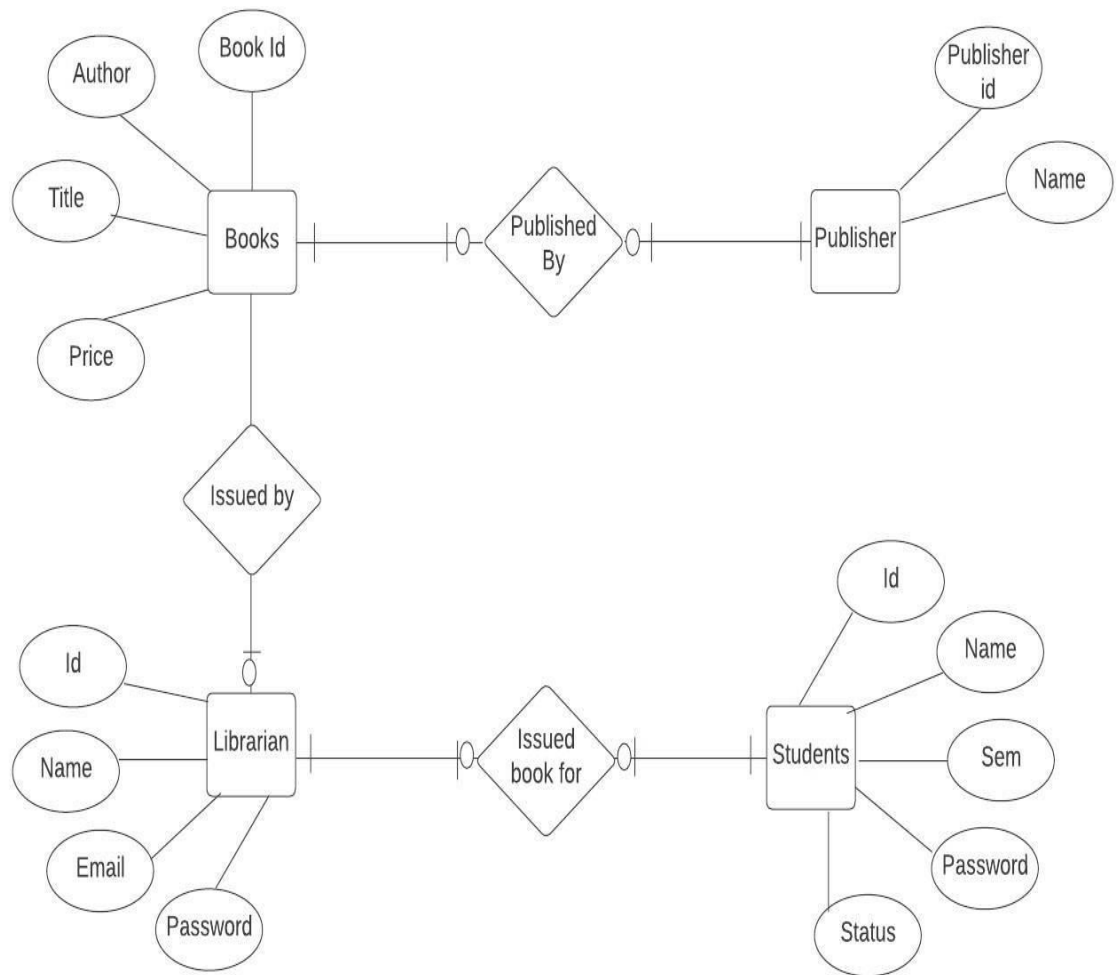
As this is online library system so customer / student don't need to search for the book , they just need to do is search on web application for its availability. And they also check how many books are left in the inventory.



## System Flow Chart

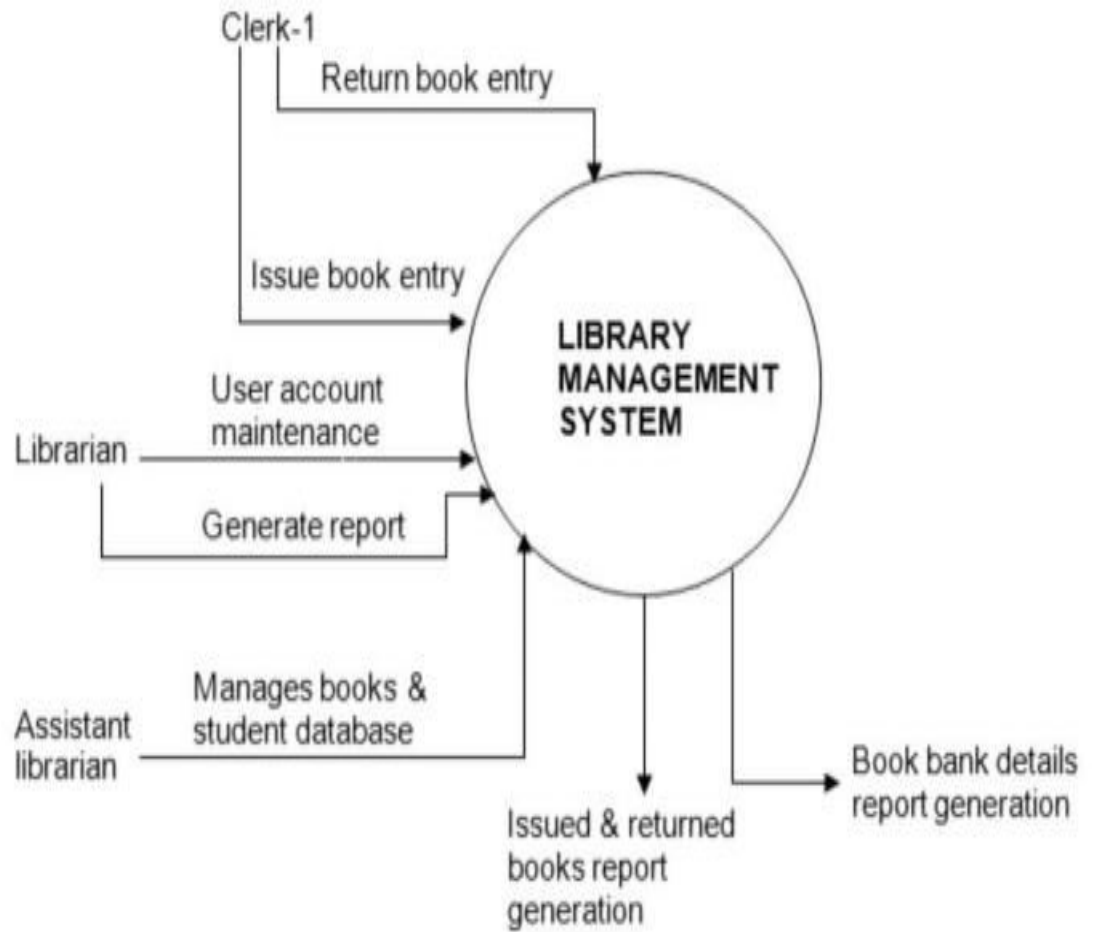


## ERD :

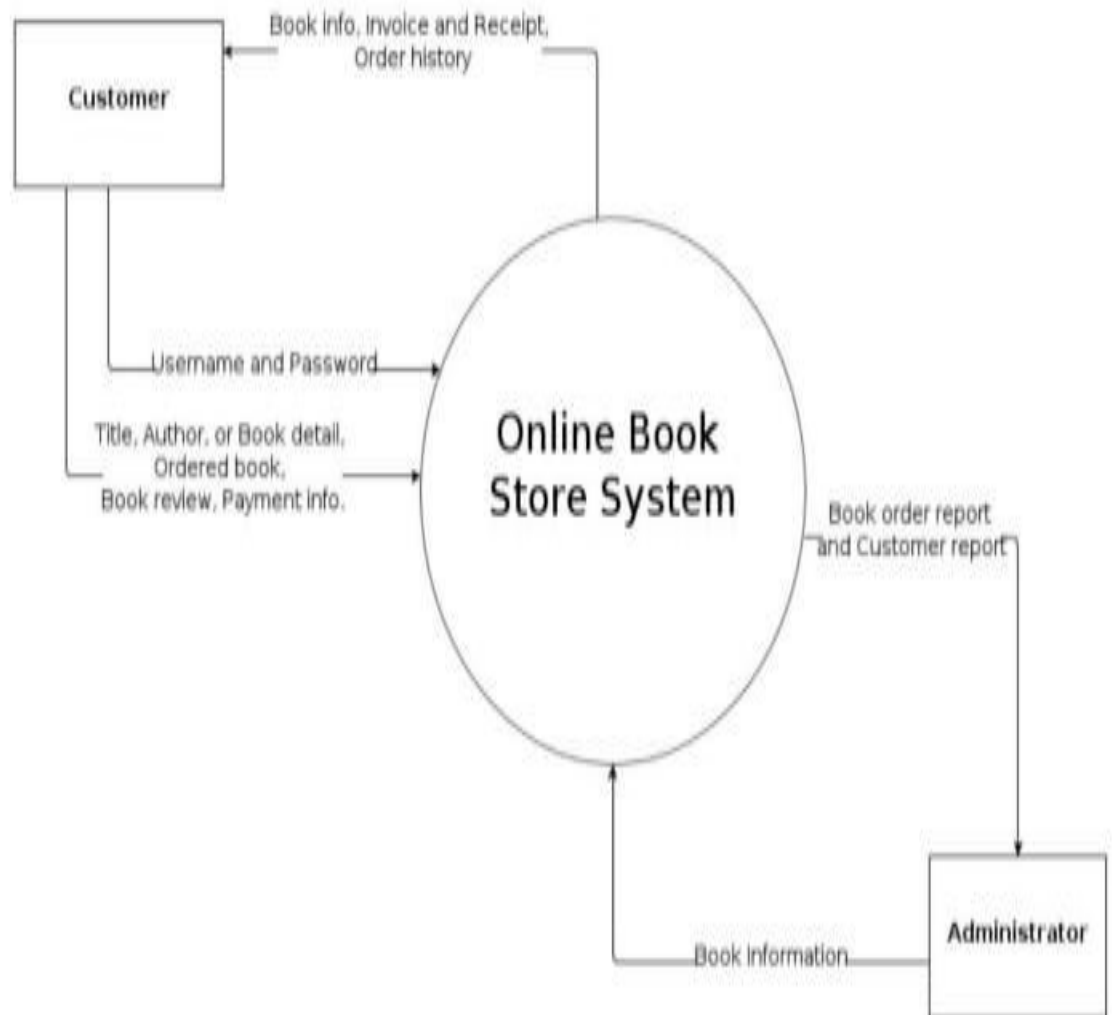


**DFD :**

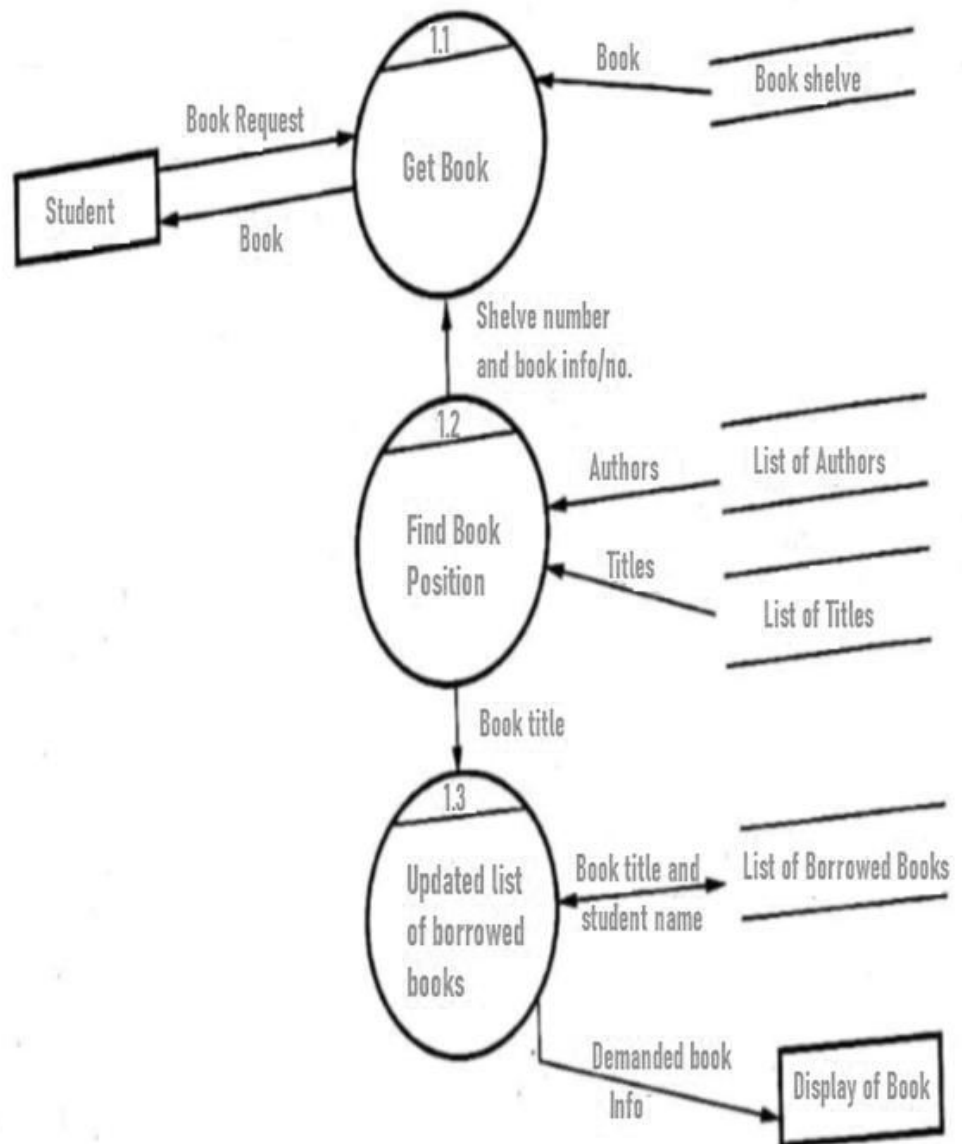
- **0 level**



- **1 level**



- 2 level



## Screen Shots

- ADD BOOKS

id	int(5) , PRIMARY KEY
name	varchar(20)
image	varchar(500)
author	varchar(20)
publication	varchar(20)
purchase_date	varchar(20)
price	varchar(20)
qty	varchar(20)
available_qty	varchar(20)
admin_name	varchar(20)

## ADMIN

id	int(5) , PRIMARY KEY
firstname	varchar(20)
lastname	varchar(20)
username	varchar(20)
password	varchar(20)
email	varchar(20)
contact	varchar(20)

## • ISSUED BOOK

id	int(5) , PRIMARY KEY
s_enrollment	varchar(20)
s_name	varchar(20)
s_sem	varchar(20)
s_contact	varchar(20)
s_email	varchar(20)
b_name	varchar(20)
b_issue_date	varchar(20)
b_return_date	varchar(20)
s_username	varchar(20)

## • MESSAGE

id	int(5) , PRIMARY KEY
a_username	varchar(20)
s_username	varchar(20)
title	varchar(20)
msg	varchar(20)
read1	varchar(20)

- STUDENT REGISTRATION

id	int(5) , PRIMARY KEY
firstname	varchar(20)
lastname	varchar(20)
username	varchar(20)
password	varchar(20)
email	varchar(20)
contact	varchar(20)
sem	varchar(20)
enrollment	varchar(20)
status	varchar(3)