A

Presentation On

“Library Management System”

PRESENTED BY:	ENROLL.NO:
BUSHRA KHAN	**EBEON0522606347**
POOJA YADAV	**EBEON0522606589**
DIMPAL RAGHUWANSHI	**EBEON0522604637**
PRIYANKA DEORE	**EBEON0522601610**
SALONI MORE	**EBEON0522608243**

CONTENTS

- **Introduction**
- **Objectives**
- **Hardware & Software Requirement**
- **Existing System**
- **Proposed System**
- **Modules**
- **Annotations**
- **Terminology Used**
- **UML Diagrams**
- **Advantages**
- **Future scope**
- **Conclusion**

INTRODUCTION

- Library Management System 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.
- This is very difficult to organize manually. maintenance of all this information manually is a very complex task. Owing to the advancement of technology, organization of a Library becomes much simple.
- The Library Management has been designed to computerize and automate the operations performed over the information about the members, book issues and returns and all other operations.
- It reduces the workload of management as most of the manual work done is reduced.

OBJECTIVE

- The objective of library management system is to handle the entire activities of a library. This software will keeps track of all the information about the books in the library, their complete details and total number of books available in the library.
- The user will find this system very user friendly automated system rather than using the manual writing system.
- The main objective of this system is that it required less man power, it is very cost effective with capacity to handle huge amount data with ease.

HARDWARE & SOFTWARE REQUIREMENTS:

Hardware Requirement:

- RAM : 2GB
- Operating System : Windows 10
- Hard Disk : 1TB

Software Requirement:

- Software Tool : Spring Boot
- Language : Java

EXISTING SYSTEM

- In early days, libraries were managed manually. It required lot of time to record or to retrieve the details.
- The staff who have to record the details must perform their job very carefully. Even a small mistake would create a lot of problems.
- Security of information was very less. Report generations of all the information was very tough task.
- Maintenance of Library catalogue and arrangement of the books to the catalogue was very complex task. In addition to its maintenance of member details, issue dates and return dates etc. manually was a complex task.
- All the operations must be performed in perfect manner for the maintenance of the library without any degradation which may finally result in the failure of the entire system.

PROPOSED SYSTEM

- We create a computerized solution for such problem.
- This system is specially built to track information about all student and book details.
- Search for desired book index system make less time consuming.
- Improved customer service through greater access to accurate information.
- To provide a friendly environment to maintain the details of books and library members.
- To overcome the inconveniences as mentioned in the existing system, a Library Management System is proposed.

MODULES

- ADMIN
- USER/MEMBER
- BOOK

ADMIN MODULE

- Admin has the authority to add, remove or modify the details of the book available form the system.
- It is to be operated by the admin with a unique id and password. The admin is the person who decides authentication and authorization for all the different users of the application.
- **It further can be subdivided as:**
  - Register user.
  - Issue Book.
  - Maintain books in a stack, which means record the availability at a regular time interval.

USER MODULE

This module is further divided into various sub-modules describing the user in a better way:

- **New User Register:** To sign up a new user to this system.
- **Student Login:** So as to confirm that only an authenticated user is using the project.
- **Search Book:** The user can search book based on book id, book name, or by author name.
- **Issue Book:** To help the user get the required books issued.
- **Return Book:** To return the book before the last date without fine, or after the specified time duration with a late fine.

BOOK MODULE

These are the basic building block of this system as well as any library. In other words, the main purpose of any library and the cause to develop systems like this.

- **Book-Name:** The name of the book which is almost unique in some way.
- **Author Name:** The one who has written the book. As sometimes the book's series becomes more popular by the author's name rather than the book name.
- **Book Price:** The market value of the book is also required to maintain in the record, as sometimes it is needed to arrange and sort based on this, secondly, it is also required for compensation in case of loss or damage, as fine charges.
- **Book Department Name:** The name of the department in which the book is almost unique in some way.

ANNOTATIONS

- **@SpringBootApplication**: This annotation is used to mark the main class of a Spring Boot application.

- **@Autowired**: @Autowired annotation is applied to the fields, setter method , and constructors. We use @Autowired to mark the dependency that will be injected by the Spring container.
- **@GetMapping:** It maps the HTTP GET requests on the specific handler method. It is used to create a web service endpoint.
- **@PostMapping:** It maps the HTTP GET requests on the specific handler method. It is used to create a web service endpoint

ANNOTATIONS

- **@Repository:** Annotation is used to indicate that the class provides the mechanism for storage, retrieval, search, update and delete operation on objects.

- **@Service:**Annotation is used to indicate that the class provides some business functionalities.

TERMINOLOGY USED

- **Spring Boot:**

Spring Boot is an opensource Java-based framework used to create a micro Service. It is developed by Pivotal Team and is used to build stand-alone and production ready spring applications.

- **HTML(**Hyper Text Markup Language**)**

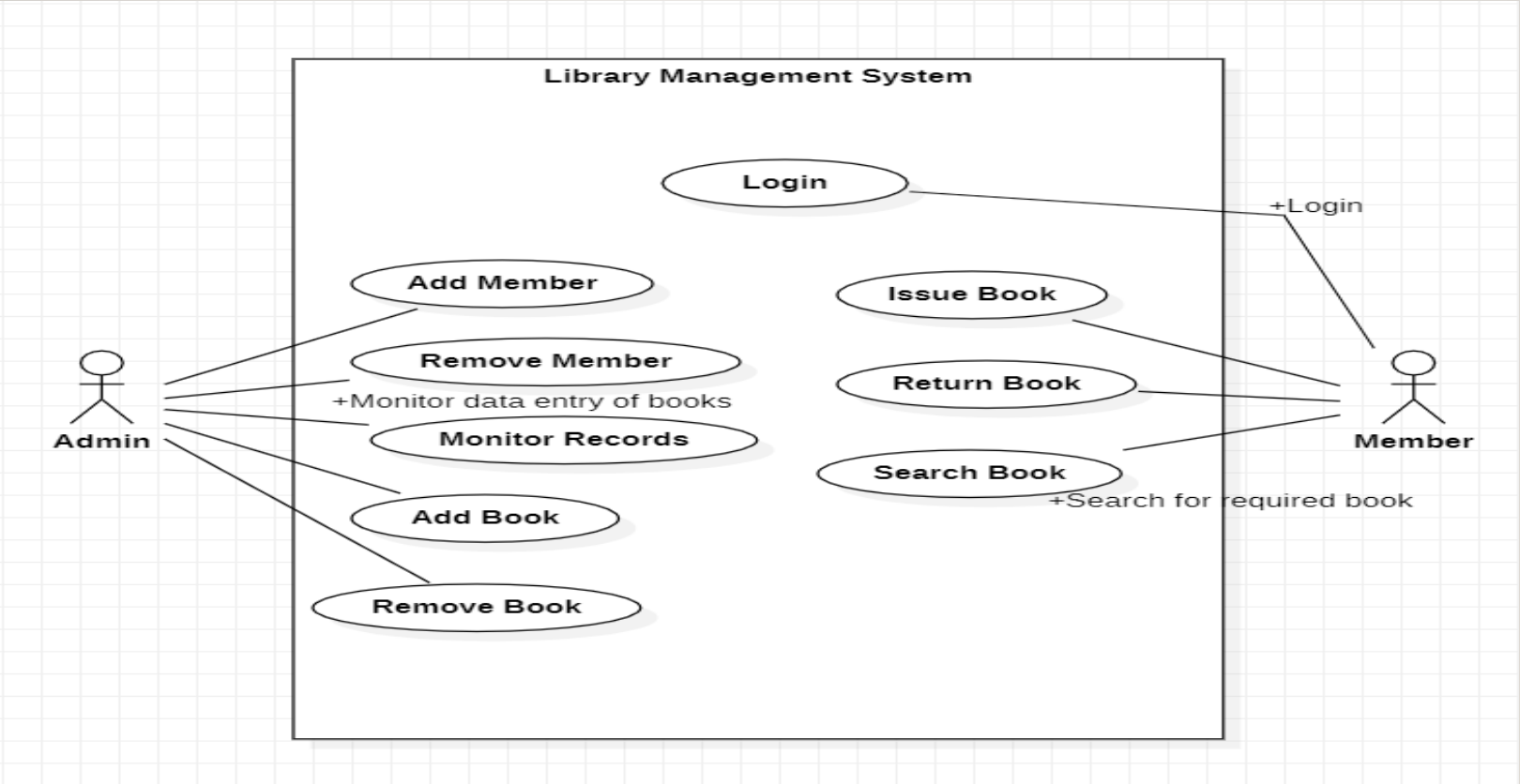
  - HTML is the standard markup language for creating Web pages. HTML describes the structure of a Web page.
  - HTML consists of a series of elements. HTML elements tell the browser how to display the content.

- **CSS**(Cascading Style Sheets)

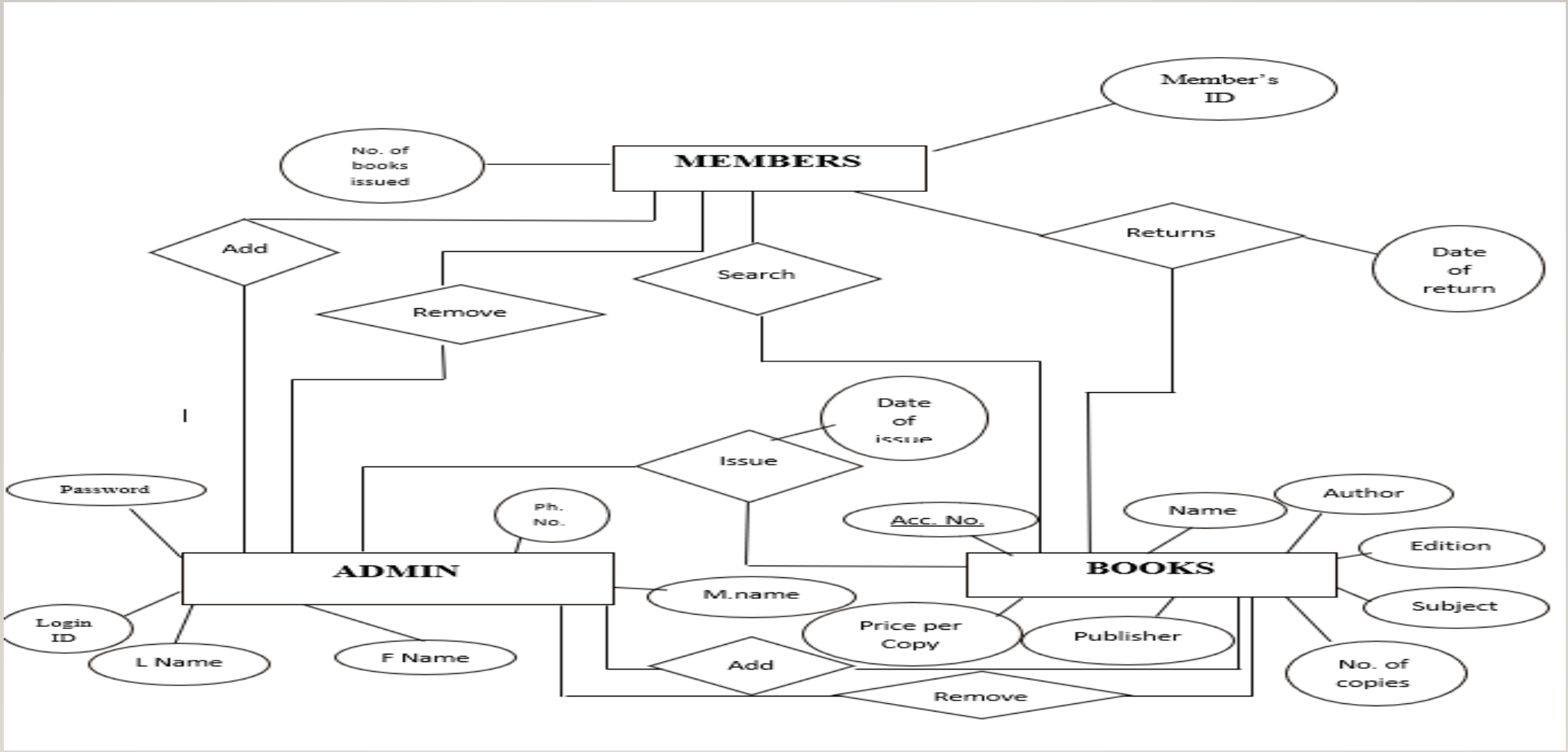
  - CSS is used to format the layout of a webpage.
  - With CSS, you can control the colour, font, the size of text, the spacing between elements, how elements are positioned and laid out, what background images or background colours are to be used, different displays for different devices and screen sizes, and much more!

UML DIAGRAM

USE CASE



E-R DIAGRAM


Member's ID
No. of books issued
MEMBERS
Add
Remove
Search
Returns
Date of return
Date of issue
Issue
Password
Ph. No.
Acc. No.
Author
Name
Edition
Subject
ADMIN
BOOKS
M.name
Login ID
L Name
F Name
Price per Copy
Publisher
Add
Remove
No. of copies

ADVANTAGES

- Less handwritten work.
- It helps you to minimize your repeated works and take care of the complete functionality of your library.
- It is a huge time saver and facilities proper communication among the management staff.
- Provide computerizes system for maintaining records.
- Avoid Human storage with less computer memory.

FUTURE SCOPE

There is a future scope of this facility that many more features such as online lectures video tutorials can be added by teachers as well as online assignments submission facility , a feature Of group chat where students can discuss various issues of engineering can be added to this project thus making it more interactive more user friendly and project which fulfills each users need in the best way possible

CONCLUSION

This project provides a computerized version of library management system which will benefit the students as well as the staff of the library. It makes entire process online where user can search books, admin can generate reports and do book transactions. It also has a facility for user login where user/member can login and can see status of books issued as well request for book or give some suggestions.

THANK YOU!!