# Experiment No. 05

## Title :

Create and display webpage for Library management using HTML, CSS, and bootstrap

## Objective:

To create a user friendly web page for managing library resources, allowing users to browse books . search for specific titles, and display relevant information about each book

## Key Concepts:

1. HTML : Utilized for structuring the web page, defining its content , such as heading , paragraphs and lists
2. CSS : Used for styling the webpage , including the layout , colors , fonts, and overall appearance.
3. Bootstrap : Employed for responsive design , ensuring the webpage adapts well to various screen sizes and devices.

## Theory :

1. HTML (HyperText Marakup Language):

   HTML (HyperText Markup Language) is the standard markup language used for creating webpages. It provides the structure for web content by defining elements such as headings, paragraphs, links, images, and lists. HTML elements are enclosed by tags which define their purpose and appearance on the webpage.
2. CSS (Cascading Style Sheets):

   CSS (Cascading Style Sheets) is a style sheet language used for describing the presentation of a document written in HTML. It allows web developers to control the layout, colors, fonts, and overall

appearance of a webpage. CSS can be applied internally within an HTML document, externally as a separate file, or inline within individual HTML elements.

3. Bootstrap:

   Bootstrap is a popular front-end framework for building responsive and mobile-first websites. It provides a collection of pre-designed HTML and CSS templates, as well as JavaScript plugins, to streamline the web development process. Bootstrap's grid system and responsive design classes help ensure that webpages look good and function well on a variety of devices and screen sizes.

## Algorithm :

1. Display Books:

• Retrieve the list of books from a database or predefined data structure.

• Iterate through each book in the list.

For each book, extract relevant information such as title, author, genre, and availability.

Format the information using HTML elements to create a visually appealing display.

Render the formatted book information on the webpage for users to view.

2. Search Functionality:

• Implement a search feature allowing users to input keywords (e.g., book title, author, genre).

Capture user input from the search field.

• Compare the input keywords with the information of each book in the library.

• Display search results that match the input criteria, dynamically updating the webpage without refreshing.

• Provide options for refining or narrowing down search results based on additional criteria.

3. Responsive Design:

• Utilize Bootstrap's grid system to create a responsive layout that adjusts based on the size of the user's screen.

Design the webpage with flexible and fluid containers, rows, and columns to ensure content adapts to different screen sizes.

• Incorporate Bootstrap's responsive utility classes to hide, show, or adjust elements based on breakpoints (e.g., extra small, small, medium, large, extra large).

Test the webpage on various devices and screen sizes to ensure consistent performance and appearance across platforms.

## Code :

- Index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Library management system Form</title>
<link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>

<div class="container">
    <h2>Library management system Form</h2>
    <form id="registrationForm">
        <label for="firstName">First Name:</label>
        <input type="text" id="firstName" name="firstName" required>
        <label for="prnNumber">PRN Number:</label>
        <input type="text" id="prnNumber" name="prnNumber">
        <label for="bookName">Book Name:</label>
        <input type="text" id="bookName" name="bookName" required>
        <label for="mobileNo">Mobile No:</label>
        <input type="text" id="mobileNo" name="mobileNo" required>
        <label for="issuedDate">Issued Date:</label>
        <input type="date" id="issuedDate" name="issuedDate" required>
        <input type="submit" value="Submit">
    </form>
</div>
```

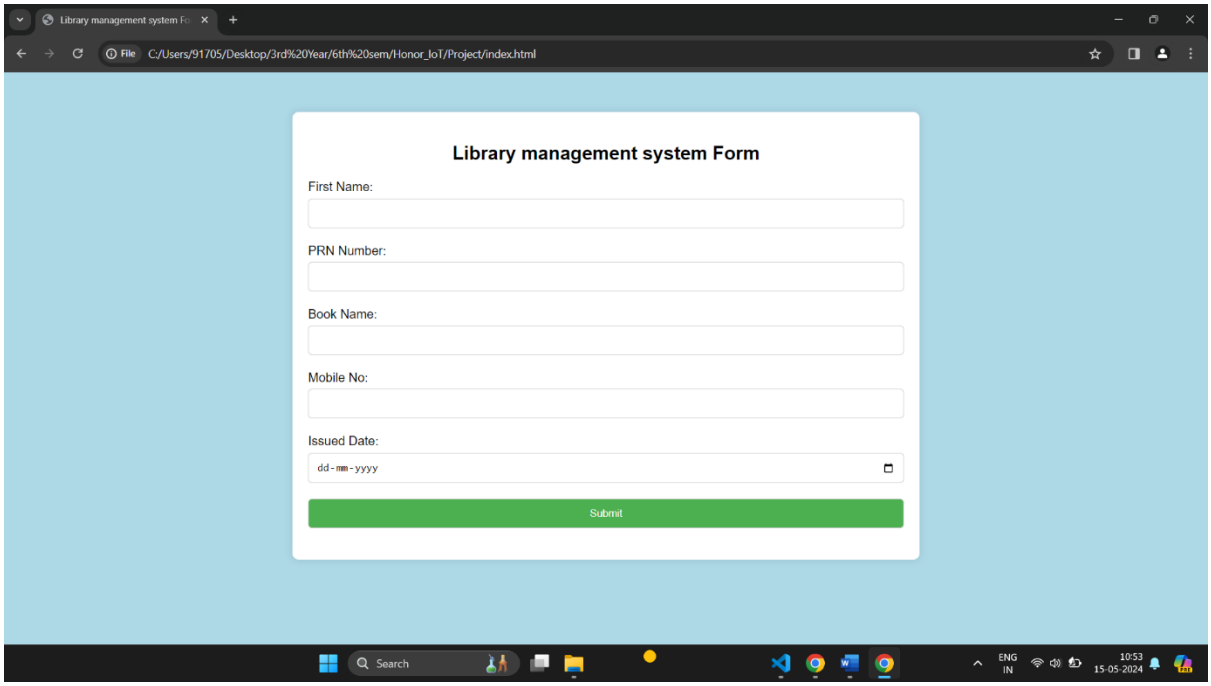
```
<script src="script.js"></script>

</body>
</html>
```

- Style.css

```
body {
    font-family: Arial, sans-serif;
    background-color: lightblue; /* Light blue background */
}

.container {
    width: 50%;
    margin: 50px auto;
    background-color: #fff;
    padding: 20px;
    border-radius: 8px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
}

h2 {
    text-align: center;
}

label {
    display: block;
    margin-bottom: 5px;
}

input[type="text"],
input[type="date"],
input[type="submit"] {
    width: 100%;
    padding: 10px;
    margin-bottom: 20px;
    border: 1px solid #ccc;
    border-radius: 5px;
    box-sizing: border-box;
}

input[type="submit"] {
    background-color: #4caf50;
    color: #fff;
    cursor: pointer;
}

input[type="submit"]:hover {
    background-color: #45a049;
```

```
}

.error {
    color: red;
    font-size: 0.9em;
}

.success {
    color: green;
    font-size: 0.9em;
}
```

## Output :




## Conclusion :

In conclusion, by combining HTML, CSS, and Bootstrap, we have successfully created a functional webpage for library management. The use of responsive design techniques ensures accessibility across various devices, while the incorporation of search functionality enhances user experience. This project highlights the importance of web development technologies in creating efficient and user- friendly interfaces for managing digital resources.