

## Mini Project

E-Library System-Orientation

ENTRI  
elevate

## Introduction

The purpose of the E-Library System is to provide a digital platform for managing books, journals, and other educational resources. The system allows users to browse, search, borrow, and return digital materials efficiently. It aims to replace traditional library systems by offering an online, user-friendly, and automated experience for both library administrators and users.

This system is designed to help educational institutions, public libraries, and organizations maintain a structured and accessible collection of digital books and resources.

## Purpose

- The E-Library System is designed to manage digital books, journals, and other educational resources. It allows users to browse, search, borrow, and return digital materials efficiently.

## Intended Use

- **Students & Researchers** – To search, borrow, and read digital books and academic resources.
- **Librarians** – To manage book collections, approve borrow requests, and generate reports.
- **Administrators** – To oversee the system, manage users, and maintain records.
- **Faculty & Teachers** – To recommend resources, create reading lists, and monitor student access.
- **General Public (if applicable)** – To browse and access public-domain books.
- **Educational Institutions** – Universities, colleges, and schools can use the system to provide students with online access to academic resources.  
**Public Libraries** – To digitize book collections and allow remote access to readers.
- **Corporate Learning Centers** – Companies can use it to manage digital training materials for employees.
- **Research Organizations** – To maintain an archive of research papers and reports.

- **24/7 Availability** – Users can access books anytime, from anywhere.
- **Improved Book Management** – Digital catalog reduces manual work for librarians.
- **Cost Efficiency** – Reduces the need for physical book storage and maintenance.
- **Easy Search & Access** – Advanced search filters help users find books quickly.
- **User Engagement** – Features like reviews, ratings, and recommendations enhance user experience.

## Project Scope

### Core Features

The **E-Library System** will include the following key features:

- **User Authentication & Role Management** – Different access levels for administrators, librarians, and users.
- **Online Book Catalog** – A digital database of books, journals, and research papers.
- **Book Borrowing & Return System** – Users can borrow e-books for a specified period.
- **Search & Filter Functionality** – Users can search books by title, author, category, and keywords.
- **User Reviews & Ratings** – Users can provide feedback on books.
- **Reports & Analytics** – Librarians can generate reports on borrowing trends and system usage.

## Definitions and Acronyms

### Definitions

#### Tech Stack Terms

1. **MERN Stack** – A full-stack JavaScript framework consisting of:
    - **MongoDB**: NoSQL database used to store application data.
    - **Express.js**: Backend web application framework for Node.js.
    - **React.js**: Frontend JavaScript library for building user interfaces.
    - **Node.js**: JavaScript runtime environment for executing server-side code.
  2. **Error Handling**:
    - The process of anticipating, detecting, and resolving errors in the application, such as invalid user input or API failures.
  3. **Deployment**:
    - The process of making the application available for use, typically by hosting it on a platform like Vercel, Netlify, or GitHub Pages.
  4. **Dark/Light Mode**:
    - A feature that allows users to switch between a dark color scheme (for low-light environments) and a light color scheme (for normal lighting).
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