

Create a Website, Database, and Data Visualization for Alyssa's Mini Library

Alyssa's Mini Library is a small library that focuses on community involvement and getting the community to read. Our library would love to foster a love for reading and learning. We will provide an interactive and accessible environment for those looking at our books.

Alyssa's Mini Library will operate online and will have membership signups, book catalog, individual book pages, book search, book checkout, and member activity tracking abilities.

I have been asked about designing and coming up with the entire system for Alyssa's Mini Library. This will include a dynamic website, SQL database, and data visualization for library analytics.

The main components of the project are as follows:

- **Website Development:**
 - **Main Page:** This page will welcome visitors and talk about the library.
 - **Membership Signup Page:** This page will allow members to sign up.
 - **Book Catalog:** This page will have book information and search. This page will also allow a member to open an individual link to any book in the catalog to give more information about the books.
 - **Checkout Page:** For borrowing books.
 - **Contact Page:** An area where we can get suggestions.
 - **Weekly Activity:** Shows new books, popular books, and member activities
- **Database Design:**
 - **Book Database:** Has book details as in title, author, page count, book summary, availability, and checkout history.
 - **Membership Database:** This will manage member details with names, phone numbers, account status, and activity history.
- **Data Visualization:**
 - We will collect data from the above that will show:
 - Total books available
 - Breakdown of books per genre
 - Number of active members
 - Books currently checked out

Implementation of the project will proceed as follows with time estimates for each task:

It is imperative that this project be well-managed. Project Management will be used to ensure that we are staying on task and on target to meet our deadlines.

The timeline for completion of the project is as follows:

- **Week #1:** Setup server, hosting, and database. – 8 hours
- **Week #2:** Setup Main page, Membership Signup page, and Contact Page. - 10 hours
- **Week #3:** Setup Book Catalog, Individual Book Pages, and Checkout Page. - 10 hours
- **Week #4:** Setup Activity Page and features of databases. -8 hours
- **Week #5:** Create data visualization and library analytics. -5 hours
- **Week #6:** User Testing (family and friends) and finalizing documentation. – 5 hours

Total Estimated Hours: 46

The timeline will allow for the creation and implementation of Alyssa's Mini Library to not only be functional but also be visually appealing.

To keep myself on task and share updates, I will be using the management software, clickup.