

PROJECT VISION/PLAN

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Vision Statement

Our project aims to build a reliable, user-friendly database for a small library that manages a diverse collection of loanable items, tracks multiple membership types, and enforces borrowing rules. By focusing on hands-on experience in designing and implementing a robust relational database system, we seek to provide clear organization, efficient workflows, and useful reports that inform day-to-day decisions. Our ultimate goal is to streamline library operations and enhance the user experience while ensuring team members gain practical skills in database management.

Scope Statement

This project encompasses the end-to-end creation of a relational database system tailored for a small library. Specifically, it includes analyzing library requirements, designing data models, implementing the schema in a DBMS, and setting up the rules for borrowing and membership management. The database will track a variety of loanable items, enforce borrowing restrictions, and provide meaningful reports to support library operations. Additionally, the project scope covers team formation, role assignments, and establishing a clear workflow for meetings, task allocation, and version control using a dedicated [GitHub repository](#). All relevant documentation, including the database design, testing plans, and user guidelines, will be maintained to ensure the system's functionality and future scalability.

Here is a basic itemized list of what we aim to complete:

1. Vision Statement and Project Plan
2. Domain Modeling and Requirements Engineering
3. Conceptual Design
 - a. Create ER diagram
 - b. Ensure all entities, relationships, attributes, key attributes, etc. are clearly illustrated
4. Logical Design
 - a. Convert conceptual design into a set of relations (tables).
 - b. Indicate relation names, attributes, attribute types, primary key attributes, foreign key attributes, and functional dependencies
 - c. Normalize relations to 3NF or BCNF
 - d. Define all important referential integrity constraints
5. Physical Design
 - a. SQL DDL
 - b. Contemplate constraints
 - c. Contemplate triggers
 - d. Late fee propagation
6. Data Population
 - a. 20 books
 - b. 20 digital media items

- c. 20 magazines
 - d. 50 client records
 - e. Membership types
 - f. Borrowing records
 - g. Randomly generate some of this data
7. Project Demonstration
- a. Queries
 - b. Reports

Team Organization

Team Name

Team Name: BRRANT

We chose this team name because it consists of all of our first initials put together.

Team Roles

Team Administrator

Responsibilities:

- Provide the single source of communication to class instructors and administrators
- Manage/layout the team's weekly responsibilities for the project

Chief Programming Officer (CPO)

Responsibilities:

- Outline initial database schema and draft ER diagram.
- Lead programming duties throughout the project

Chief Research Officer (CRO)

Responsibilities:

- Research database technologies and summarize best practices

Chief Financial Officer (CFO)

Responsibilities:

- Research cost factors, both monetary cost and time cost, for database implementation.

Chief Creative Officer (CCO)

Responsibilities:

- Define long-term goals and future project expansion/
- Communicate with team members to collaborate and mesh ideas.

Chief Documentation Officer (CDO)

Responsibilities:

- Record weekly meeting meetings
- Draft Project Documents
- Proofreading and quality assurance

Profiles

Riley Meyerkorth

Team Role

Team Administrator

Contact

Email: rileymeyerkorth@gmail.com

Phone: +1 (785) 242-7245

Availability

Monday: 12:00PM – 2:30PM

Tuesday: N/A

Wednesday: 12:00PM – 5:00PM

Thursday: N/A

Friday: 12:00PM – 5:00PM

Saturday: N/A

Sunday: 12:00PM – 8:00PM

Experience

- **Platform(s):** Windows, Linux, MacOS
- **Programming Language(s):** C/C++, C#, MySQL, JavaScript/TypeScript

Alex Doebling

Team Role

CPO – Chief Programming Officer

Contact

Email: alex.doebling2@gmail.com

Phone: +1 (636) 578-6375

Availability

Monday: 4:00PM – 9:00PM

Tuesday: 4:00PM – 9:00PM

Wednesday: 4:00PM – 9:00PM

Thursday: 4:00PM – 9:00PM

Friday: 4:00PM – 9:00PM

Saturday: 12:00PM – 6:00PM

Sunday: 12:00PM – 8:00PM

Experience

- **Platform(s):** Windows, Linux
- **Programming Language(s):** C/C++, Python, Java, JavaScript/HTML

Ty Farrington

Team Role

Chief Research Officer

Contact

Email: ty.farrington@ku.edu

Phone: +1 (913) 291-6059

Availability

Monday: 4:00PM – 9:00PM

Tuesday: 4:00PM – 9:00PM

Wednesday: 4:00PM – 9:00PM

Thursday: 4:00PM – 9:00PM

Friday: 4:00PM – 9:00PM

Saturday: 12:00PM – 6:00PM

Sunday: 12:00PM – 8:00PM

Experience

- **Platform(s):** Windows, Linux
- **Programming Language(s):** C/C++, Python, Java, JavaScript/HTML

Ryland Edwards

Team Role

Chief Financial Officer

Contact

Email: rylandedwards@ku.edu

Phone: +1 (913) 401-5751

KU ID: 3088766

Availability

Monday: 3:00PM – 5:00PM

Tuesday: N/A

Wednesday: 3:00PM – 5:00PM

Thursday: N/A

Friday: 3:00PM – 5:00PM

Saturday: N/A

Sunday: 12:00PM – 8:00PM

Experience

- **Platform(s):** Windows, Linux
- **Programming Language(s):** Python, C/C++, MySQL, JavaScript/TypeScript

Nicholas Holmes

Team Role

Chief Creative Officer

Contact

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Phone: +1 (785) 479-1419

KU ID: 3088242

Availability

Monday: 3:00PM – 5:00PM

Tuesday: N/A

Wednesday: 3:00PM – 5:00PM

Thursday: N/A

Friday: 3:00PM – 5:00PM

Saturday: N/A

Sunday: 12:00PM – 8:00PM

Experience

- **Platform(s):** Windows, Linux

Programming Language(s): Python, C/C++, MySQL, JavaScript/TypeScript

Brett Suhr

Team Role

Chief Documentation Officer

Contact

Email: bjsuhr@icloud.com

Availability

Monday: 3PM – 6PM

Tuesday: Unavailable

Wednesday: Unavailable

Thursday: 5PM – 8PM

Friday: All Day

Saturday: All Day

Sunday: All Day

Experience

- **Platform(s):** Windows, Linux
- **Programming Language(s):** Python, C/C++, MySQL, JavaScript/TypeScript