Planning Document

The goal of the Digital Learning Resources Platform project is to create an instructional resource for students in schools. The main goal of the platform is to offer a centralized database of reference materials in the fields of technology, math, and art to students, tutors, and administrators. Students' learning experiences will be improved by the system's ability to browse articles by category and perform keyword searches.

The three primary areas of the platform's organization for educational content will be technology, math, and art. There will be articles in each category covering notable figures, important works of art, noteworthy occasions, and noteworthy ideas.

With the help of the system, tutors can create and modify educational content, administrators can ensure the database's integrity, and students can easily browse educational content.

The system will have three user access levels:

1. Students: Can browse articles by category and keyword.
2. Tutors: Can add, modify, and delete articles.
3. Administrators: Have full control, including adding, modifying, and removing articles.

The platform will support CRUD operations:

1. Create: Tutors and administrators can add new articles to the database.
2. Read: Students can access articles by category and keyword searches.
3. Update: Tutors can modify existing articles.
4. Delete: Administrators can remove articles from the database.

Functional Requirements

Article Management

- Add article
- Edit article
- Delete article
- View article
- Add student
- Edit student
- Delete student

Functions outside of scope

- Add/edit/delete Courses
- Add/edit/delete Timetable
- Add/edit/delete Attendance

User Stories

As a student, I want to be user-friendly and engaging, so that I can easily navigate and access information related to art, mathematics and technology for my learning.

As a student, I want to be able to search for information in order, so that I can quickly find information on a particular topic.

As a student, I want a functional and mobile-friendly system, so I can access educational materials on the go from my smartphone or tablet.

As a student, I would like to have personalized suggestions for content based on my interests and past interactions with the platform, so that I can easily find context.

As a tutor, I want to create an easy-to-use interface to add and edit text, so that I can efficiently populate the database with relevant educational content.

As a tutor, I want a flexible exchange system, including the ability to add graphics and multimedia materials, so that I can enhance the teaching content for students.

As a tutor, I want to be able to review and approve student submissions before they are published, so that I can ensure the accuracy and appropriateness of the content.

As an administrator, I want to have a secure and efficient user management system, so that I can easily add, change, or remove users and control access to the application.

As an administrator, I want a comprehensive dashboard of system analytics and usage metrics, so I can monitor application performance and user engagement.

As an administrator, I want an easy and efficient way to back up and restore a database, so that I can protect the integrity of the data and retrieve information when needed.

Iterations

Iteration 1

Developing System Design document

Objective: Make a Solution Design document after conducting data analysis.

Plan:

- Analyze data to comprehend the structure of educational content.
- Define the architecture of the system.
- Create a model for a database.

- Make UX Design and User Access documents.

Goals:

- Make sure you comprehend the needs and the structure of the system.
- Create a thorough Solution Design document.

Iteration 2

Developing the Database

Objective: Create the database in the selected database management system.

Plan:

- Put into practice the database model that has been approved.
- Add test data to the database.

Goals:

- Create a database structure that works.
- Use test data to verify data integrity.

Iteration 3

Developing Database Queries

Objective: Develop and evaluate appropriate queries in accordance with client specifications.

Plan:

- Determine the needs for client queries.
- Create and test queries to browse articles based on keywords and categories.

Goals:

- Verify the accuracy and efficiency of database queries.

Iteration 4

Implementing Database using Web Application

Objective: The goal is to develop and test a single-page interface application that complies with client requirements.

Plan:

- Create a mobile or web application.
- Connect the application to the database queries.
- Check the functionality of the application.

Goals:

- Establish an easy-to-use interface for database access and interaction.

Trello Board