Platform for Management of Projects Across Sultanate of Oman

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ABSTRACT

Oman needs a project management platform. The initiative addresses three project management issues in Oman. First, there is no collaborative website where students, professors, and employers may share project ideas and experiences. Second, students' trouble finding graduation project ideas. Last, finding research assistants for instructors' projects. An online cooperative platform links Omanis to startup initiatives and improves project management. This project built a website to share project ideas. The website links Omanis to startup projects, improving project cooperation. Teachers may submit suggestions and collaborate with interested students on this platform, which gives students fresh ideas and peer evaluation. The platform might help organizations boost efficiency and profitability by exchanging information and ideas. The website will motivate students to discover graduation project ideas, link professors with students who wish to work on a project, and assist corporations build efficiency and profit-boosting ways. The AI-powered "Platform for Management of Projects across Sultanate of Oman" might overcome these issues, establish an electronic platform for project ideas and interchange, and help Oman's industrial revolution.

Introduction

Globalization and technological innovation characterize the Information Age. Globalization has made the globe a village. Information technology advanced greatly in the latter decade of the 21st century. Technology has shown new methods for education and cognitive growth.

How has technology changed project management? Technology has transformed project management. Over the last 20 years, technology, communications, software, and other advances have transformed project management. Project success has made technology introduction crucial. Project management technology increases interpersonal and intrapersonal communication. Today, the world needs a collaborative project management platform that supports individual freedom of expression and involvement, nurtures innovation and thinking in the project-related sector, helps complete projects, tracks them, and helps them grow. The Sultanate's electronic project management platform was offered from this standpoint. Students may propose project ideas, get teacher feedback, and establish teams on the site. It also helps firms find, present, and learn from ideas. "Platform for Management of Projects across Sultanate of Oman" is the initiative. The project involves creating a website for Oman initiatives. Project management will improve as Omani people collaborate on new projects. Students may exchange study project ideas on the site. Other graduating students may also propose a project, hear their ideas, and collaborate with them. By posting ideas on the site, teachers may immediately find students who want to work together. The website will help businesses discover new opportunities. Businesses may also exchange project ideas and experiences. The website will promote Oman-wide project management collaboration. The platform seeks to create a cooperative and adaptive environment for project idea exchange while keeping up with growth, development, and information technology in education and participation. Information technology will expedite project management, increase cooperation while building projects in the Sultanate, and improve effectiveness and efficiency to stay up with modern trends.

Problem Definition

A website will be built to share project ideas, collaborate with the Sultanate, and exchange information. Electronic progress, the global expansion of the Internet, and the range of approaches utilized to build educational and administrative procedures need this. This website was created since no other website supports task cooperation. Thus, the initiative seeks to facilitate project cooperation for firms, teachers, and students. Technology advanced this way. Project management, research, and communication need a website linking students, instructors, and business owners. Today's students are looking for new and easier ways to succeed in school, and teachers need a platform to communicate with students, help with research assistant proposals, and share ideas. This website will provide project ideas for students, educators, and enterprises in Oman.

This initiative was selected because Omani students, educators, and enterprises face various issues:

First, Oman lacks a collaborative website for project proposals. The second issue is that many graduating students struggle to come up with a graduation project idea. With the industrial revolution, Oman needs an electronic collaborative platform to share project ideas, exchange knowledge, and learn from others, whether they are students, instructors, or businesses. This platform may inspire them and provide them online feedback. Third, some professors have problems finding research assistants. The platform will let instructors make online proposals and work with students who wish to cooperate on the project. However, some firms need help due to issues or work flaws. These companies may use other companies' ideas to boost production and profits. The portal will help startups locate project ideas.

Project Scope

The platform's user interface has been created using PHP, and data is kept in databases using the (My SQL) program. The site has interactive components via the usage of JavaScript. The site has been designed by adjusting fonts, colors, backgrounds, and other elements using CSS and HTML. The total duration was 6 months.

Project Objectives
- A common forum for project idea exchange.
- Seek help or work on a project with other users.
- A system for feedback on the project concept.
- To delete unnecessary comments using the "Filters method"
- A system for tracking project cooperation.

Project Goal

This project's primary goal is to create a website (an electronic platform) for the Internet. In order for this platform to manage projects, changes must be made to the website for project ideas, users must be registered, projects may be added and removed, etc. It is a platform for group collaboration in technology that aids in the beginning of projects for students, teachers, and businesses.

Literature Review

Due to advances in technology and education, it is vital to manage projects online using a specialized collaboration platform to connect Omanis, exchange ideas, share experiences, and benefit from each other's initiatives and ideas. This section justifies certain literature:

Jemes Klwy (2020) says a project management system "lies in facilitating the process of communication between project owners, as well as enhancing communication and love of assistance to achieve the desired goals of the project." In another article, Rajina Marbel (2021) said the system "may deal with the process of selecting individuals for their projects, allowing participants to provide ideas and support to others, while on the other hand documenting the process of communication between project owners and enhancing the process in working with a team."

Reza Kly (2019) explains how to create a Microsoft SQL Server database and link all data. Building a website requires a database. Bahiej Massouh (2019) says the essay covers website construction basics and programming languages.

According to Mohammed Al-Agha (2018), countries should create an Internet web page that shares project ideas that are being implemented or have been implemented so that citizens can learn from others' experiences. encouraging people to assist others and work together via projects boosts the state's image and helps it adapt to digital change. Technology, project management, and learning methods are also improving.

"Online communication with team members is to build a tight-knit team so that even if employees are separated by miles, they may feel like they are part of a cohesive unit because of a cloud-based solution," said Jose and Lona (2020). All project participants get the latest updates, so no one is accidentally left out of the debate. Instead of email, project-specific interactions might be recorded.

According to Loss Waliy (2018), a relational database management system (DBMS) uses SQL. Since MySQL is a multipath database server, users may query it rapidly. However, its computer language-made user interface makes connecting its tables easy.

Mazem (2020) defines a website as a network of publicly accessible web pages with the same domain name. Individuals, clubs, enterprises, and organizations may build and manage websites.

Methodology

Methodology, often known as research technique, describes a publication's approach. It is a policy or set of principles that encompasses phases, tasks, approaches, processes, and instruments in academic and analytical problem solving (Sami, 2020). Dynamic Systems Development Method (DSDM): I'll use DSDM to finish this project and meet program goals. I chose this strategy because it can monitor potential consequences, indicate project success or failure early on, and boost project effectiveness swiftly and unambiguously. Routine chores are completed swiftly and on schedule. Developers may also make ongoing and client-requested updates. Quality project monitoring helps identify problems and solve them quickly (Klawy, 2020).

Table 1. SOWT for DSDM

Strengths	Weakness
-Complete work on time and efficiently. -Allow for unlimited changes at any time. -Assurance of project quality.	- Ineffective for small businesses. - Continuous user input is required throughout the development process.
Opportunities	**Threats**
-Sophisticated technological approach. -Providing solutions and project management. - Software development.	-High costs. - The necessity of continuous communication between the client and the developer.

Methodology for "Platform for management of projects across Sultanate of Oman"?

• The feasibility analysis's initial step establishes the applicant (admin)'s most critical program requirements and constraints to be established. Next, the developer assesses the project's suitability for the strategy.

• Business Research Phase: This phase develops website criteria that enable the program to produce value and determines the platform requirements for website maintenance.

• Functional model repetition: The scheme's ongoing design and evaluation will use schematic representation repetition to express the website framework's needs.

• Design and development: This stage focuses on the internet page model to match the framework.

•In the final level of this technology, students, teachers, and corporations utilize the "Platform for management of projects across Sultanate of Oman" website.
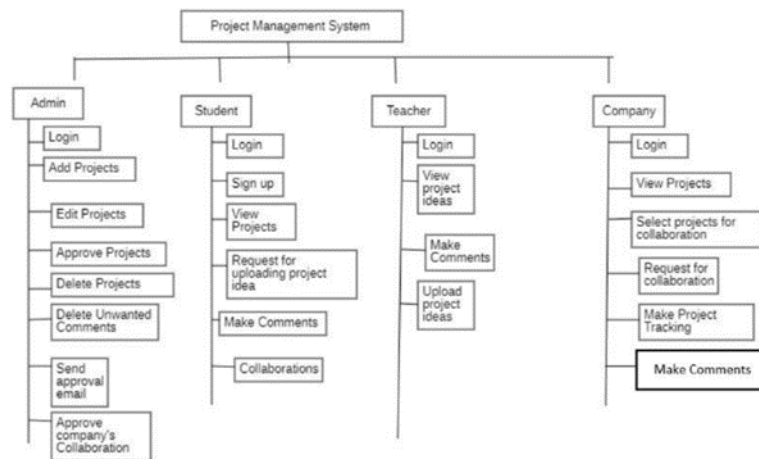
Design Diagrams

Figure 1. Block diagram

The major components or parts of the system is defined in the block diagram. These components are represented by the blocks. The block diagram of the proposed system is shown below in the figure:

Use Case Diagram

Project management platform participants communicate visually. This diagram simplifies web application demands (Schwalbe 2015). Students, instructors, and administration make up the system. These actors communicate as seen below. Signing up and logging in validates the student. Admins verify users. Students seek project idea clearance. Admins may approve or deny project proposals. The government also favors project collaboration. Filters remove comments.
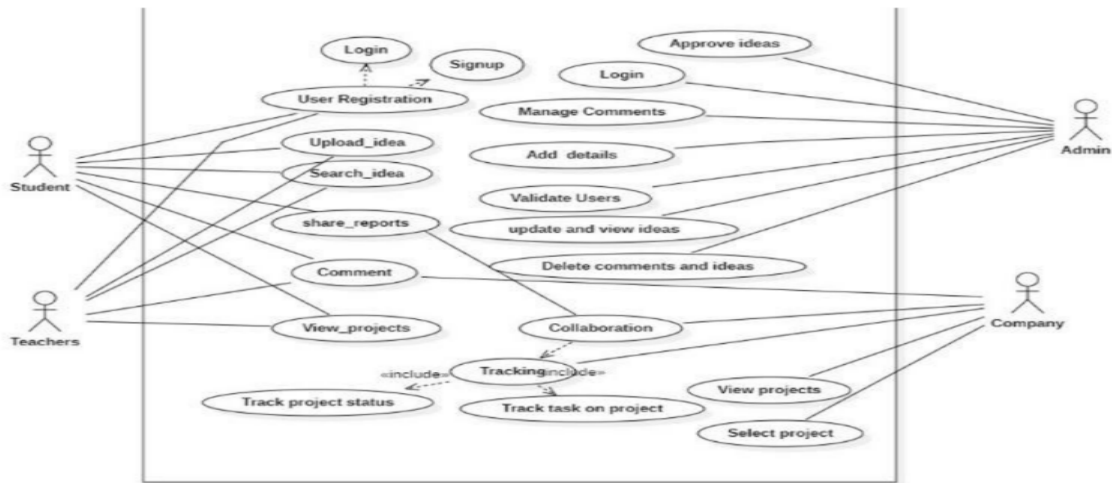
Figure 2. Use Case Diagram

ER Diagram

The ER diagram shows the project management system's main model. ER diagrams (Letouze and Ronzani 2011) show how database tables are visualized. ER diagram entities may have one-to-one, one-to-many, or many-to-many connections. One administrator may manage many students and instructors, as shown. One student may submit several project ideas, and one administrator can accept many.
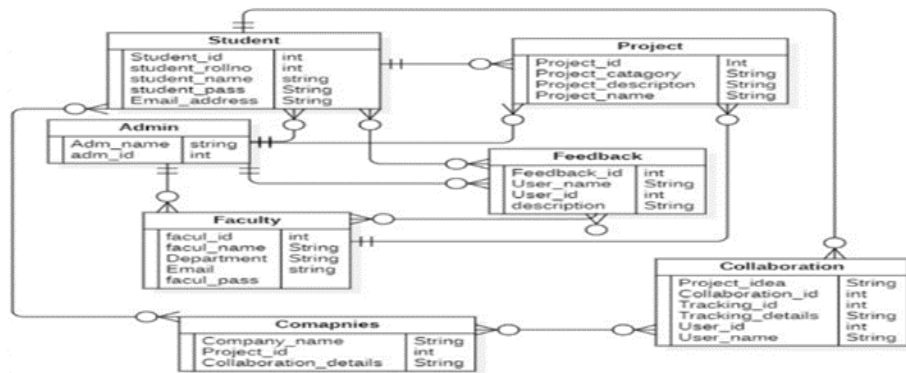

Figure 3. Entity Relationship Diagram

Flow Chart

A flowchart depicts the website-building process (Shakerian et al., 2020). The flowchart shows the project's steps from beginning to finish. Circle, arrow, square, and diamond are flowchart symbols. After creating a student or faculty account, the user must request to upload the project proposal. After accepting or rejecting the recommendation, the administrator emails. Users may work together and network. Flowchart of proposed system:
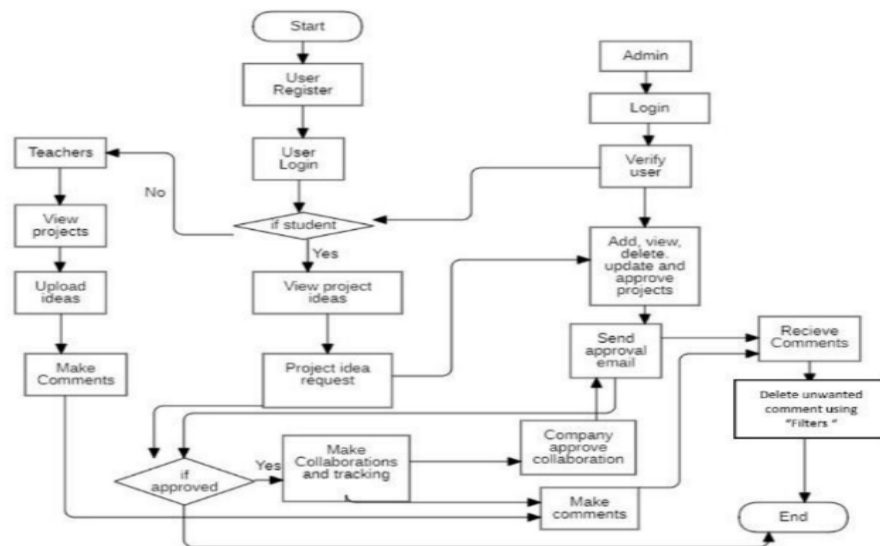
Figure 4. Flowchart

Deployment

Website awareness helps Oman communicate project ideas and collaborate. Development isn't new, but I'm adding new features to the website to make it easier for companies, students, and instructors to use. The platform's operation is easy; thus, no expertise is needed. I plan to develop the website and make it Google-searchable.

Conclusion

A collaborative electronic platform for starting activities is the project's objective. The website was created for idea owners—students, academics, and corporations. The platform promotes Omani community contact, project cooperation, and teamwork. Encourage age-group cooperation and knowledge exchange in the Sultanate. This portal also connects top project management and development firms. Project deployment is complete.

Recommendations

Project suggestions will enhance system development and improvement. The ideas allow the researcher to share his project aims with the reader (Adham, 2020). Project suggestions:
• This platform might become a huge web application.
• A more powerful database than SQL might hold more data.
• Future efforts will focus on awareness and platform staff training to understand site changes.
• Allowing nationals and foreigners to start projects in Oman. The best project ideas will be included in future website updates, and the administrator will award the developer. Users vote for the candidate.
        Data mining will replace "filters" to remove bad comments.

Acknowledgment

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