AN ENGINEERING PROJECT REPORT

On

coreQ - COMMUNITY for REPRISING QUALITATIVE RESEARCH

Submitted By

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Abstract

This proposal outlines the creation of a platform called coreQ (Community for Reprising Qualitative Research) aimed at inspiring college students to share their knowledge, innovative ideas, and project files within their college domain. The platform will serve as a hub for students to find peers with various fields of interest, form project teams, and participate in competitions. Additionally, it will address the lack of a digitalized platform for sharing and discussing innovative ideas, providing query assistance, and facilitating communication among students, seniors, peers, and teachers outside of regular coursework. The objective is to foster collaboration, showcase projects, and enhance job placement prospects. The proposal outlines specific objectives, such as building a user-friendly website, allowing registration and sharing of research articles and original ideas, facilitating open-source projects, and involving teachers as supervisors and resource providers.

Keywords: *Community Platform, coreQ, Database, Express.js, Mongoose, MongoDB, Node.js, NoSQL, React, Tailwind CSS, UI/UX, Web Application*

Contents

List of Abbreviations

API	Application Programming Interface
BSON	Binary JSON
CSS	Cascading Style Sheet
coreQ	Community for Reprising Qualitative Research
ER	Entity Relation
HTML	Hypertext Markup Language
JSON	JavaScript Object Notation
OS	Operating System
NoSQL	Non-relational Structured Query Language
SDLC	Software Development Life Cycle
UI	User Interface
UX	User Experience

Chapter 1

Introduction

1.1 Background

A social media platform exclusively designed for students serves as a dedicated hub where they can connect, engage, and share knowledge within their college community. It goes beyond the traditional concept of social media by focusing on academic and intellectual interactions. This platform provides students with a space to ask queries, seek assistance, and receive feedback from their peers and mentors. It facilitates the sharing of research articles, academic resources, and innovative ideas, enabling students to showcase their intellectual pursuits and contribute to a collaborative learning environment. By offering a centralized hub for student-exclusive discussions, this social media platform becomes a vital tool for fostering engagement, collaboration, and intellectual growth among students in colleges.

In today's digital age, the importance of fostering a vibrant and dynamic student community within colleges cannot be overstated. Students are not only seeking academic excellence but also crave opportunities to explore their passions, collaborate with peers, and engage in interdisciplinary projects. However, traditional academic settings often fall short in providing a dedicated space for students to connect, share ideas, and collaborate effectively. This has led to the need for a student-specific community platform in colleges, where students can come together, interact, and unleash their creative potential.

1.2 Problem Statement

While various platforms exist for general social networking or academic research purposes, they often lack the specialized features required to facilitate interdisciplinary collaborations among students within the college domain. Furthermore, the current modes of communication and collaboration, such as physical notice boards or informal student gatherings, are limited in their reach and effectiveness. These traditional approaches do not harness the power of technology to enable seamless connectivity and communication among students. As a result, students are often unaware of the diverse skills and interests of their peers, leading to missed opportunities for collaboration on innovative projects.

Additionally, the absence of a structured platform inhibits the sharing and dissemination of knowledge beyond the boundaries of classrooms and coursework. Students are unable to showcase their achievements, research findings, or project outcomes to a wider audience, limiting their visibility and potential for recognition within their college community. This lack of exposure can impact their job placement prospects and hinder their personal and professional growth.

Chapter 2

Project Objectives

The coreQ platform aims to address the need for a digitized space where college students can share, discuss, and collaborate on innovative ideas, research, and projects. This initiative was born out of the desire to inspire students within the Cosmos college domain, provide opportunities for interdisciplinary collaboration, and enhance their job placement prospects.

2.1 Building a Website

Developing a user-friendly website that allows college students to register and share their favorite research articles, original ideas, and project files. The platform will incorporate features that cater to students with varying levels of knowledge, ensuring inclusivity.

2.2 Collaboration and Team Formation

Facilitating collaboration among students by providing tools and resources for forming project teams and finding peers, seniors, and juniors with diverse fields of interest. This will allow students to collaborate on projects and participate in competitions.

2.3 Teacher Involvement

Incorporating teachers within the platform to contribute as supervisors, resource providers, and mentors. Teachers will be able to guide students in their projects and research, while students can also assist them in their own endeavors. This symbiotic relationship will foster a supportive and knowledge-sharing community.

Chapter 3

Methodology

3.1 Research and Analysis

A comprehensive review of existing platforms and similar initiatives will be conducted to identify best practices, features, and potential challenges. This research phase will inform the development of COREQ and ensure that it addresses the specific needs of college students in sharing and reprising qualitative research.

3.2 User Research

To better understand the requirements and preferences of college students, surveys and interviews will be conducted among the target audience. This user research will provide valuable insights into their expectations, desired features, and potential barriers to participation. The findings will be used to tailor the platform to meet the specific needs of the user community.

3.3 Prototype Development

Based on the research and user feedback, a prototype of the COREQ website will be developed. This prototype(website) will serve as a first phase that incorporates the base level features. In the second and third phase It will include features such as user registration, profile creation, project sharing, and collaboration functionalities. We use React framework, mongoDB and node.js for the development.

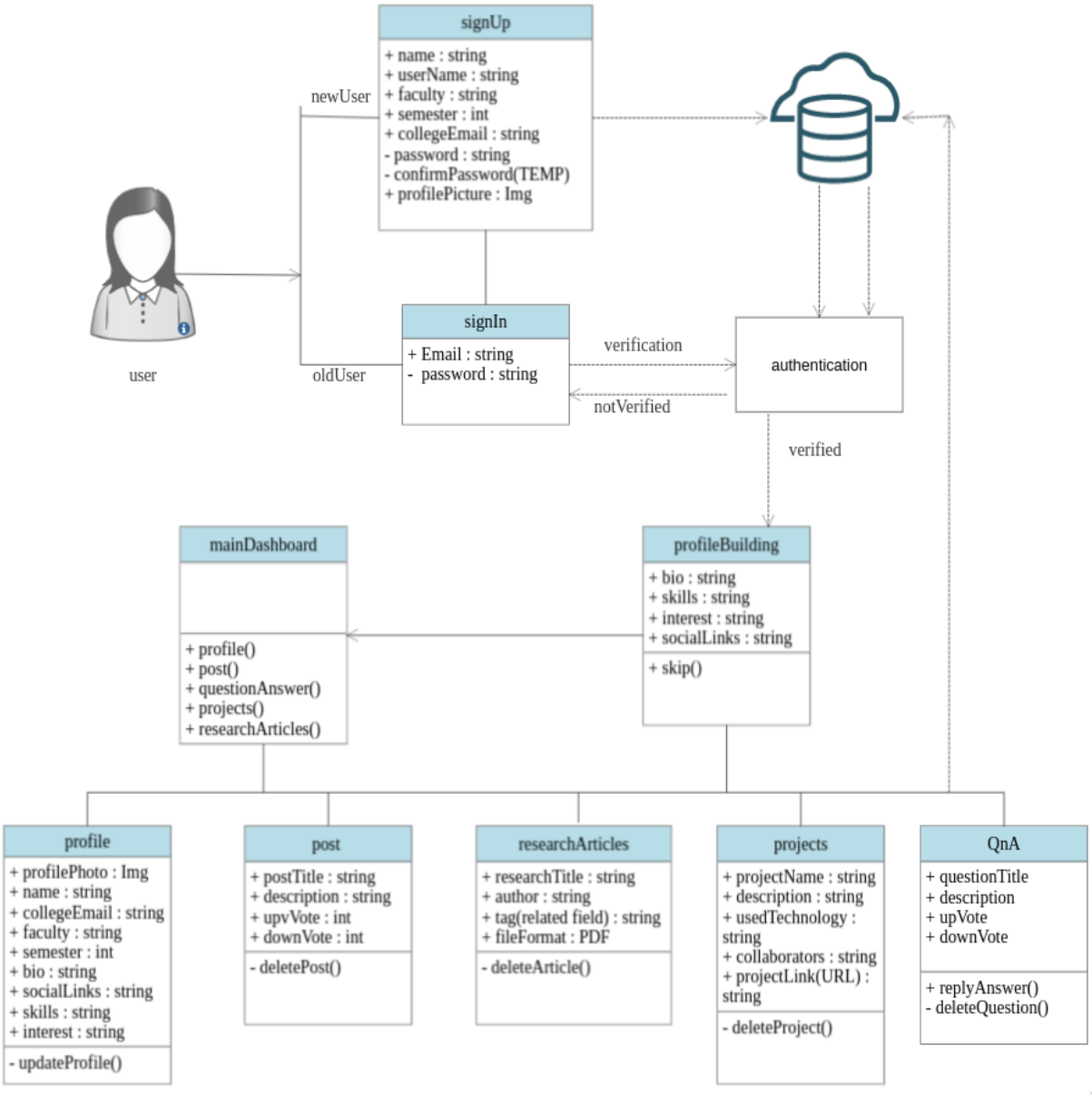

Figure 3.1: Class Diagram

3.4 User Registration and Profile Creation

Students will be able to register on the website, create profiles, and specify their fields of interest. This information will be used to facilitate collaboration and connect students with similar interests. Students will have the ability to share research articles, project files, and innovative ideas within the platform. They can collaborate with other students, form project teams, and seek guidance from teachers.

3.5 User Testing and Feedback

A group of college students will be invited to participate in user testing sessions. They will be asked to perform tasks on the prototype website while providing feedback on usability, functionality, and overall user experience. This iterative feedback loop will help identify and address any usability issues or areas for improvement.

3.6 Teacher Integration

Teachers will be invited to join the platform as supervisors and resource providers. They will have access to student profiles and projects, enabling them to offer guidance and support. Students can also be chosen for specific projects based on their skills and interests.

Chapter 4

EXPECTED OUTCOMES

4.1 Enhanced Collaboration

COREQ will foster a collaborative environment among college students, allowing them to connect with peers from various fields of interest. This will lead to interdisciplinary collaborations, bringing together diverse perspectives and skills for innovative projects and research.

4.2 Exhibit Projects and Achievements

Students will have a platform to showcase their projects, research findings, and achievements, providing visibility and recognition within their college community. This will contribute to their personal and professional growth.

4.3 Job Placement Opportunities

COREQ will serve as a repository of student work, accessible to potential employers. Students will be able to highlight their skills, projects, and research, increasing their chances of securing job placements or internships aligned with their interests.

4.4 Mentorship and Guidance

The integration of teachers within COREQ will facilitate mentorship and guidance for students. Teachers can provide valuable feedback, offer resources, and supervise projects, fostering a supportive learning environment outside of traditional coursework.

4.5 Innovation and Knowledge Sharing

The platform will encourage the sharing of innovative ideas and research findings. Students will have the opportunity to learn from each other, sparking new ideas, and contributing to the overall knowledge base within the college community.

4.6 Technical Achievement

The team aims to create a website and add features necessary for the objective. On doing so, we will deal with frameworks on both front-end and back-end development and deployment issues along with database systems i.e. NoSQL and MongoDB.

4.7 Team Achievement

We expect to have an understanding of building a project from scratch i.e. be able to work within a team, collaborate on vision and find and develop soft skills as well as learn on how a team is expected to work on a project from start to finish via our supervisor. We expect to have enough understanding to work on similar projects and use what we learnt here.

WORKING SCHEDULE

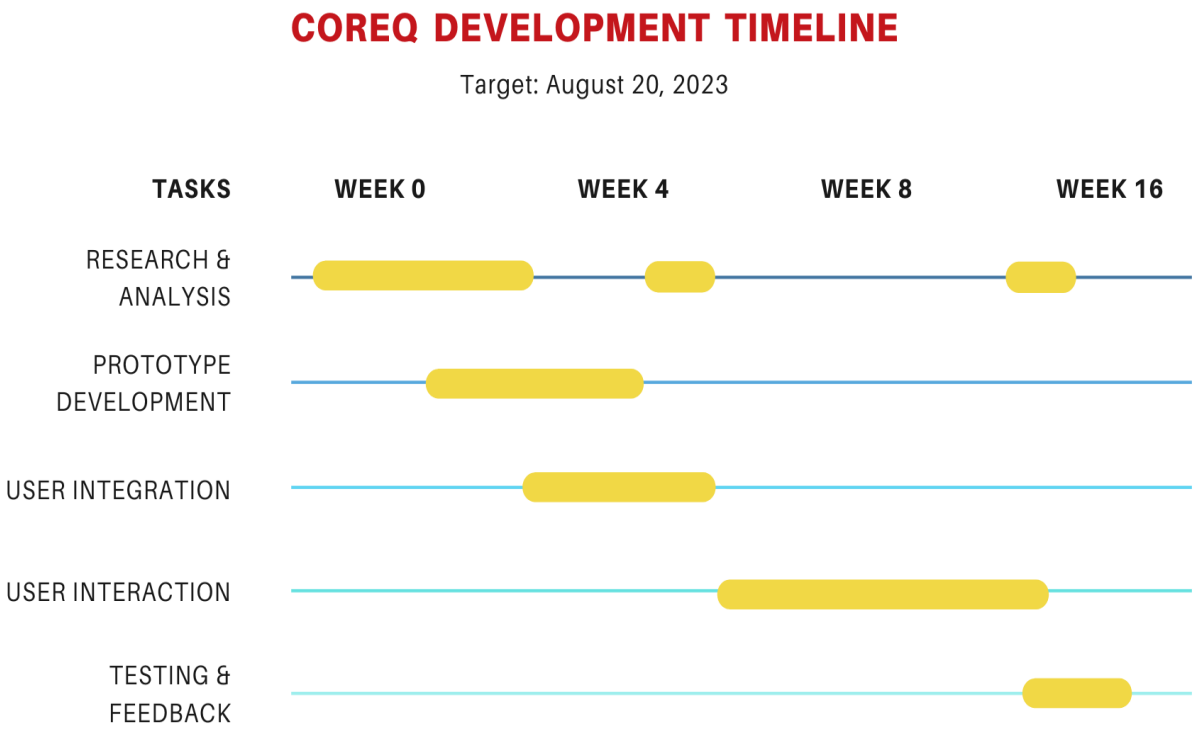

Figure 4.1: Gnatt Chart (Agile Workflow)