Tutor Finder System (TuteeNep)

A CIS Project Proposal

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CHAPTER 1

INTRODUCTION

1.1 Background of Study

In contemporary educational paradigms, the necessity for tailored educational support surpasses the confines of traditional classroom environments. Despite the increasing availability of educational resources online and the rise of e-learning platforms, many high school students in Nepal still struggle to find tutors who can cater to their specific learning requirements. The usual way of finding tutors involves searching through different sources, which can be time-consuming and often leads to mismatches and frustration.

Online tutoring emerges as a pivotal solution, addressing infrastructural constraints imposed by limited physical learning spaces and affording students the flexibility to engage with educational materials beyond the conventional classroom setting (Dhawan, 2020). Research indicates that individual tutoring significantly enhances learners' comprehension and attitudes compared to classroom settings (Bryn Jeffries, 2020). Recognizing this need, the Tutor Finder System has emerged as a vital online platform, providing a solution to the ongoing challenge of finding suitable tutors.

“TuteeNep” combines "tutee", referring to the students seeking tutoring services, with "Nep", representing Nepal. This name succinctly communicates that the platform is dedicated to assisting high school students in Nepal. “TuteeNep” efficiently communicates the core objective of the platform: facilitating seamless connections between high school students and tutors in Nepal.

By facilitating the connection between high school learners and proficient tutors, the Tutor Finder System endeavours to propel academic advancement and foster goal attainment (Tutor Connect, 2023). Central to its mission is the enhancement of high school students' access to high-quality academic assistance by streamlining the process of tutor discovery and engagement.

1.2 Statement of Problem

The lack of a single platform where students can easily connect with tutors adds to the problem of finding tutors, making it harder for students to get the academic support they need. This highlights the need for a user-friendly platform that brings students and tutors together, making it easier for them to connect and achieve academic success.

The tutor finder system is designed as a solution to create and evaluate a tutor-finding application that provides a platform for students to find tutors outside of the classroom based on the subjects for which they require additional assistance (Gonzale, 2023).

TuteenNep aims to address the challenge of facilitating quality education support for students through an online platform by creating a user-friendly environment where students can easily connect with qualified tutors for personalized tutoring sessions. By leveraging technology to bridge the gap between students and tutors, the tutor finder system endeavors to empower learners to achieve their academic goals effectively.

1.3 Objectives of study

The main objective of this project is to provide convenient and personalized tutoring services through an online platform, facilitating effective learning and helping students achieve their academic objectives.

The specific objectives of the project are:

a) Facilitate easy access to quality education support for students.
b) Offer personalized tutoring tailored to individual student needs.
c) Help with homework, exam preparation, and understanding complex concepts.
d) Ensure fair rates for students and fair pay for tutors, promoting an equitable learning experience.
e) Create a user-friendly platform accessible anytime and anywhere for seamless learning.

1.4 Scope of Study

The tutor finder system is an online platform that aims to streamline educational support services, providing a seamless experience for students and tutors alike. In a concise manner, it simplifies the process of finding tutors and accessing educational resources. It offers insights into past and current management activities, enhancing efficiency and

reducing costs. Through TuteeNep, users can seamlessly navigate educational support processes while ensuring a smooth and cost-effective management experience.

1.5 Delimitations

The TuteeNep platform is delimited by its availability exclusively within Nepal. This means that its services, including finding tutors, becoming a tutor, and accessing educational resources, are accessible only to users within the geographical boundaries of Nepal.

In addition to being available solely within Nepal, TuteeNep imposes the limitation that users must be logged in to access the feature of finding tutors. This requirement restricts the ability to search for tutors to registered users of the platform, enhancing the privacy measures.

CHAPTER 2

REVIEW OF LITERATURES

2.1 Empirical Review

The paper proposes "Smart Tuition Finder," an application designed to address the challenge of finding trustworthy tutors, particularly in metropolitan areas like Karachi. It utilizes a location-based search system, recommendation engine, and secure payment method, operating on an Escrow model. The application aligns with Sustainable Development Goals (SDGs) by promoting quality education through its features. The Feature Vs Goals framework is employed to analyze how specific application features contribute to achieving SDGs, offering insights for enhancing existing or future applications towards societal progress. (Muhammad Saad, 2019)

The study found that the “Project Learn” system was well-received by users, who found it user-friendly and essential for their needs. Both experts and end-users were satisfied with its performance, and feedback was used to enhance its functionality. The system underwent development phases following the SDLC model and was assessed based on various criteria, including functional suitability, reliability, and usability. Recommendations include continuous feedback collection from users, acting on suggestions for improvement, and considering additional features based on user feedback to enhance the system further. (Gonzale, 2023)

According to Ahmad Faizuddin Bin Mohd Shukri, “Tutor Finder Mobile Application Using Normalize Technique” is a system which focuses on students to find their tutor around the campus. This system provides a rating feature for the students to rate their tutor based on the experience of the student with the tutor. This system can help to overcome the problem to make a new production more efficient. (Shukri, 2019)

2.2 Use Case Diagram

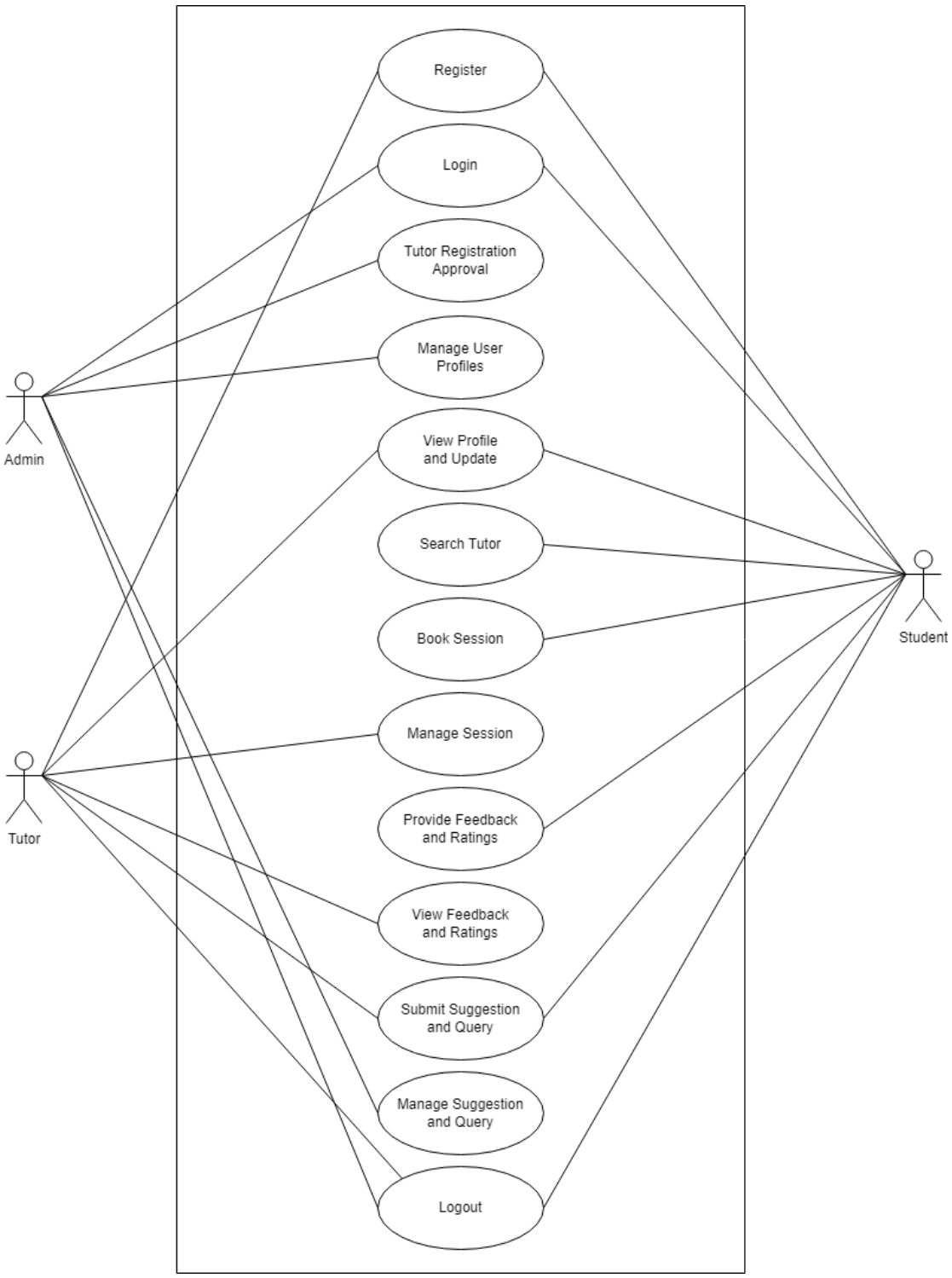

Figure 1: Use Case Diagram

The use case diagram for the Tutor Finder System depicts interactions between three primary actors: tutors, students, and admin. Tutors can log in, manage profiles, book sessions, provide feedback, and submit queries. Students have similar functionalities, including searching for tutors and booking sessions. Admin oversees the system, handling user profiles, approving tutor registrations, managing suggestions and queries, and logging in and out. This diagram succinctly outlines the system's core functionalities and user interactions, guiding further development and design decisions.

2.3 ER Diagram

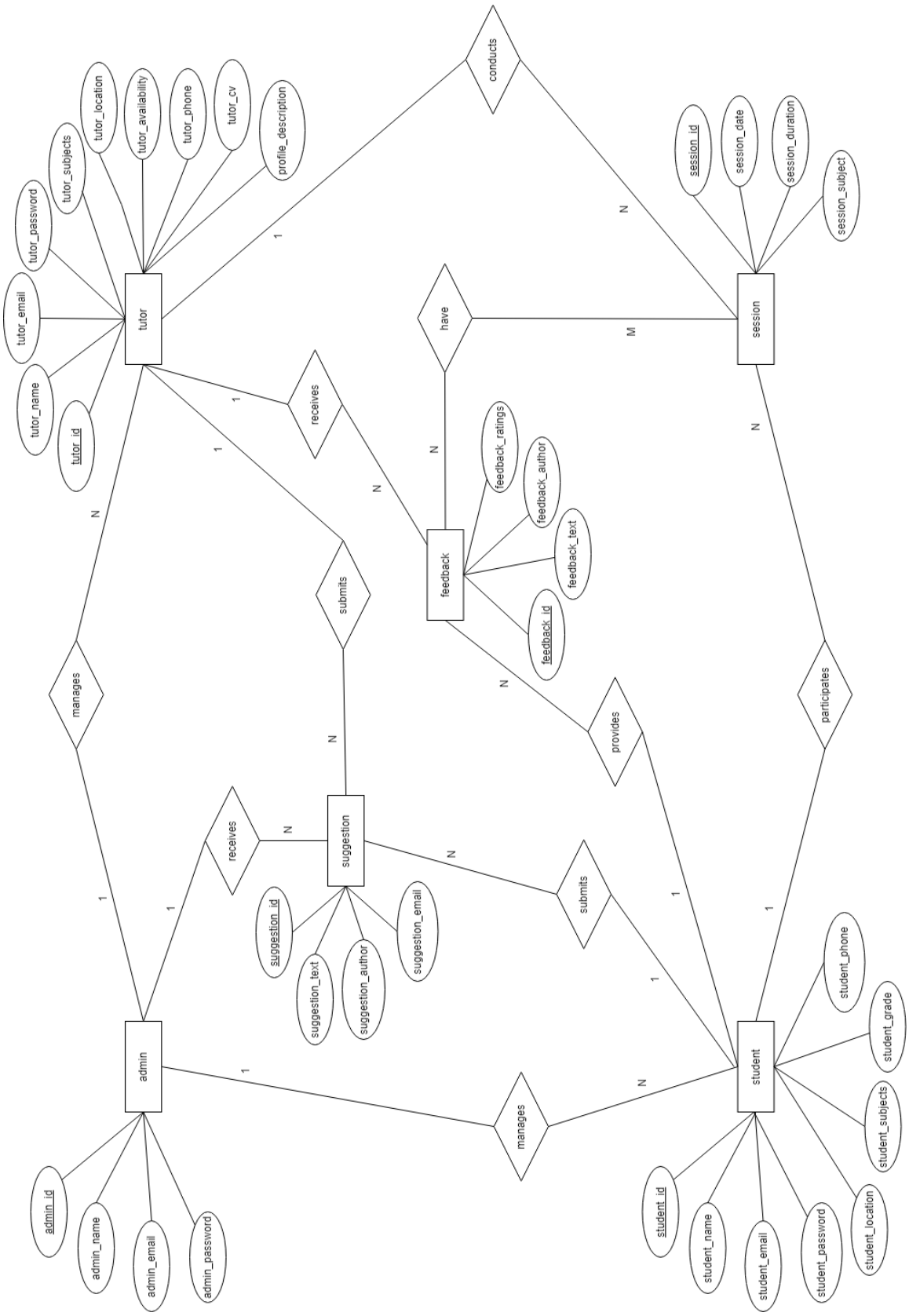

Figure 2: Entity-Relationship Diagram

The Tutor Finder System comprises several entities and relationships essential for facilitating tutoring sessions between tutors and students. Admins oversee system management, handling tasks such as creating and managing tutor profiles, addressing student suggestions, and reviewing feedback. Tutors provide tutoring services, with profiles containing details like their expertise, availability, and contact information. Students utilize the system to find suitable tutors, with their profiles specifying subjects of interest. Sessions represent individual tutoring sessions between a tutor and a student, each with a date, duration, and subject. Feedback from students regarding tutors' performance after sessions aids in maintaining quality standards. Additionally, students can submit suggestions for system improvements, which are received and addressed by admins. The relationship between students and feedback, and students and suggestions, is one-to-many, reflecting the capacity for multiple interactions between students and these entities. Moreover, to represent the many-to-many relationship between sessions and feedback, each session can have many feedback entries, and each feedback entry can be associated with many sessions, indicating that each session can receive feedback from multiple students, and each student can provide feedback for multiple sessions. This comprehensive model ensures efficient coordination and continuous improvement within the Tutor Finder System.

2.4 System Modules

The system comprises of three major modules with their sub-modules as follows:

1. Admin:
    a) Login: Allows administrators to log in to the system using their credentials, ensuring secure access to the admin dashboard.
    b) User Profile Management: Provides functionality for administrators to view, edit, and manage user profiles, ensuring accurate and up-to-date information.
    c) Tutor Registration Approval:
        i. Tutor Registration Review: Allows administrators to review the registration forms submitted by tutors. They can approve or decline tutor registrations based on predefined criteria.

ii. Approval Workflow: Implements a workflow where tutor profiles are only visible to the students when the admin approves their registration. This ensures that only qualified tutors are showcased to students.

d) Query and Suggestions Management: Enables administrators to view and respond to queries and suggestions submitted by users, including both students and tutors. Administrators can aid or feedback as needed, ensuring effective communication between users and the platform.

e) Logout: The administrator can log out after the task is completed.

2. Tutor:

i. Registration and Profile Creation: Enables tutors to register on the platform and create detailed profiles showcasing their qualifications, expertise, and availability.

ii. Profile Management: Allows tutors to update and manage their profiles, including availability, subject expertise, and pricing.

iii. Session Management: Provides tools for tutors to manage tutoring sessions, view student bookings, and communicate with students.

iv. Feedback and Ratings: Allows tutors to view feedback and ratings from students, helping them improve their services and reputation.

v. Query and Suggestions: Facilitates direct communication between tutors and administrators. Tutors can submit queries regarding the services or offer suggestions for platform improvement.

vi. Logout: The tutor can log out of the system.

3. Student:

a) Registration and Login:

i. Registration: Allows students to create an account on the platform by providing necessary information such as name, email, password, grade level, phone number, address, subject.

ii. Login: Enables students to log in to the system using the required credentials.

b) Tutor Search: Provides functionality for students to search for tutors based on criteria such as subject expertise, grade level proficiency, location, availability, and teaching style preferences.

c) Session Booking: Enables students to book tutoring sessions with selected tutors.
d) Feedback and Rating: Allows students to provide feedback and rate on tutoring sessions and overall experiences.
e) Query and Suggestions: Facilitates direct communication between students and administrators. They can submit queries regarding tutoring services or offer suggestions for platform improvement.
f) Account Management: Provides options for students to manage their account settings, including password changes, email preferences, and profile updates.
g) Logout: Allows students to log out of the system.

CHAPTER 3

FEASIBILITY STUDY

By conducting a comprehensive feasibility study, we can make informed decisions about the viability of TuteeNep and identify any potential challenges or constraints that need to be addressed before proceeding with development.

3.1 Technical Feasibility

The technical feasibility assessment for the Tutor Finder System project indicates promising prospects for development. Leveraging existing technologies and platforms facilitates smooth progress without significant technical hurdles. Moreover, the ability to integrate with databases and user interfaces within the prescribed timeline ensures that key milestones are achievable. Additionally, the system's demonstrated scalability and performance align with project requirements, providing confidence in its ability to accommodate future growth and user demands effectively.

3.2 Economic Feasibility

The economic feasibility analysis reveals a positive outlook for the Tutor Finder System project. The cost-benefit analysis suggests that development costs are well within budgetary constraints, positioning the project for financial viability.

3.3 Operational Feasibility

Operational feasibility assessments highlight the compatibility of the Tutor Finder System with existing processes and workflows. Its seamless integration into operational frameworks minimizes disruptions during implementation. The manageable maintenance requirements reinforce the system's feasibility, indicating that ongoing support and upkeep will not pose significant operational challenges.

3.4 Scheduling Feasibility

Scheduling feasibility analysis showcases the project's robust planning and execution strategies. Established project milestones and timelines provide a clear roadmap for development, testing, and deployment phases, facilitating efficient progress tracking.

Contingency plans to address potential scheduling risks and delays further enhance the project's resilience, ensuring timely delivery and mitigating unforeseen challenges.

CHAPTER 4

SYSTEM SPECIFICATIONS

4.1 Introduction of System

TuteeNep emerges as a transformative platform designed specifically for high school students in Nepal, aiming to reshape the educational landscape. By offering a user-friendly interface and a vast database of proficient tutors, TuteeNep revolutionizes the way students access academic support. With its intuitive interface and extensive database of tutors, TuteeNep will simplify the process of finding the right tutor based on subject expertise and location preferences.

Students can explore a variety of subjects and connect with tutors who align with their learning goals, whether it's exam preparation, subject mastery, or academic enrichment. TuteeNep fosters dynamic learning environments where students will receive personalized feedback and access resources to enhance their understanding of various topics.

As Nepal embraces digital transformation in education, TuteeNep emerges as a pioneering force driving positive change and shaping the future of learning in the country.

4.2 System Description

TuteeNep is an online platform designed to address the persistent challenge of connecting students in Nepal with suitable tutors tailored to their individual learning needs. It offers a comprehensive platform for students in Nepal to easily find qualified tutors tailored to their academic needs.

With an extensive tutor database organized by subject expertise and grade level proficiency, students can efficiently locate tutors matching their requirements. The user-friendly interface, coupled with customizable search filters, ensures seamless navigation and personalized tutor discovery. Detailed tutor profiles provide insights into qualifications, teaching experience, and student reviews, aiding students in informed decision-making. A robust rating and review system maintain quality standards, while responsive customer support addresses user inquiries promptly. Notably, all tutors

undergo a rigorous registration process, and their profiles are visible only upon admin approval, ensuring the credibility and reliability of the platform.

Overall, the Tutor Finder System aims to revolutionize the way students access academic support in Nepal by providing a centralized platform that simplifies the process of finding, evaluating, and engaging with qualified tutors.

CHAPTER 5

SYSTEM REQUIREMENT SPECIFICATIONS

5.1 External Interface Requirement

Here are the external interface requirements for the tutor finder system:

a) Web Interface: TuteeNep will feature a user-friendly web interface compatible with popular browsers like Chrome, Firefox, Safari, and Edge.
b) Mobile Compatibility: The platform will be responsive, ensuring seamless access on smartphones and tablets for users on the go.
c) Database Connectivity: TuteeNep necessitates robust database connectivity to manage user data, tutor profiles, and search filters efficiently.
d) Admin Dashboard: An admin dashboard is essential for administrators to manage user accounts, review tutor registrations, and monitor platform activity securely and intuitively.

By meeting these requirements, TuteeNep aims to provide a smooth experience for students and tutors, facilitating effective connections and academic support services.

5.2 Software Configurations

The software configuration of the tutor finder system includes:

a) Operating System: The system will run on a compatible operating system such as Linux, Windows, or macOS, ensuring flexibility and accessibility across different platforms.
b) Web Server: XAMPP, an open-source cross-platform web server solution stack that includes Apache, MySQL, PHP, and Perl will simplify the setup and configuration of the development environment.
c) Scripting Languages: The system will be developed using programming languages such as HTML, CSS, JavaScript for the front-end, and PHP for server-side scripting. Additionally, frameworks like Bootstrap may be utilized for responsive design and code efficiency.

d) Database Management System (DBMS): TuteeNep will utilize MySQL to store and manage data related to user accounts, tutor profiles, search filters, and other platform functionalities. The data is safer and more meticulous because it is saved in a database system which offers various security features such as access control, encryption, backup, and recovery options (Khullar, 2022).
e) Version Control: Version control systems like Git will be employed to manage and track changes to the source code, code versioning, and ensuring code integrity.
f) Integrated Development Environment (IDE): IDEs such as Visual Studio Code and Sublime Text will be utilized for code editing, debugging, and project management, enhancing productivity and code quality.
g) Web Browser: TuteeNep will be compatible with popular web browsers, including Google Chrome, Mozilla Firefox, Safari, Microsoft Edge, and Opera. Additionally, responsive design techniques will be employed to optimize the user experience across various screen sizes and resolutions.

By configuring the software components effectively, TuteeNep aims to ensure stability, performance, and security while providing a seamless user experience for students and tutors.

5.3 Hardware Configurations

a) i3 Processor Based Computer or higher
b) Memory: 1 GB
c) Hard Drive: 50 GB
d) Monitor
e) Internet Connection

5.4 People Requirement

The system is designed to be user-friendly and accessible. System users are the individuals who interact with the TuteeNep platform. They include:

a) Students: Users seeking tutoring services for academic assistance.
b) Tutors: Individuals offering tutoring services to students.
c) Administrators: Personnel responsible for managing the platform, including user accounts, tutor registrations, content moderation, and system maintenance.

In conclusion, the TuteeNep platform caters to the diverse needs of students, tutors, and administrators, fostering a collaborative environment for academic growth and success.

CHAPTER 6

EXPECTED OUTCOME

6.1 Expected Outcome of Project

The tutor finder system will be a helpful tool for students and tutors in Nepal. The platform aims to enhance academic performance, comprehension, and confidence among students by facilitating seamless connections between students and tutors. Furthermore, by implementing quality assurance mechanisms such as a robust rating and review system and meticulous administrative oversight of tutor registrations, the platform seeks to maintain exceptional standards of service quality, ensuring that students receive dependable and effective tutoring assistance. Ultimately, the research aspires to broaden students' access to educational support and contribute significantly to their academic achievements.

6.2 Objectivity

The objectivity of the project lies in its commitment to providing an impartial platform for connecting students with tutors based solely on their academic needs and qualifications. Our focus is on facilitating educational support without bias or favouritism, ensuring equal opportunities for all users. By adhering to transparent processes and criteria for tutor selection, we aim to maintain the integrity and fairness of the platform. Our dedication to objectivity extends to all aspects of the project, from the design of the user interface to the implementation of rigorous quality assurance measures. Overall, our objective is to empower students to achieve their academic goals through a reliable and unbiased tutoring platform.

CHAPTER 7

GANTT CHART

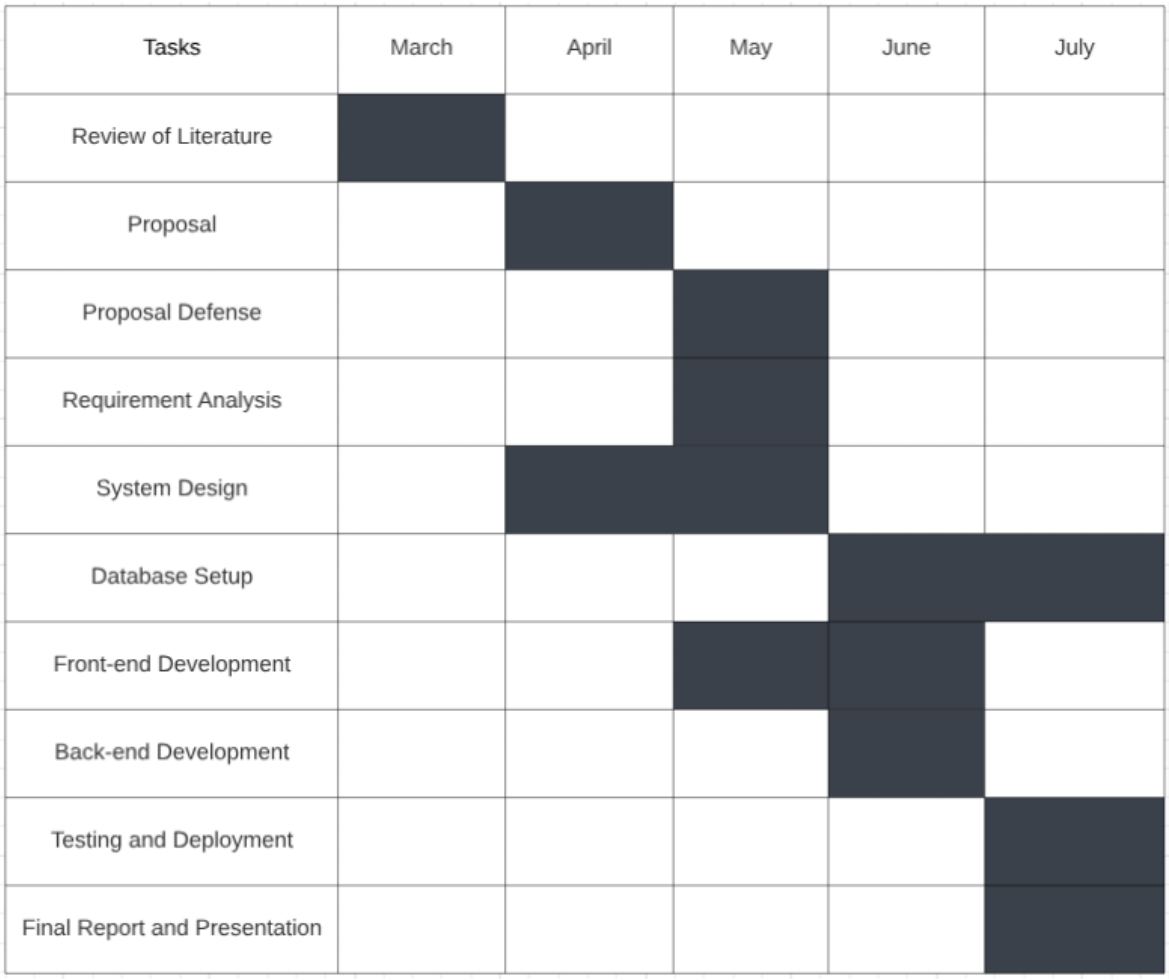

Figure 3: Gantt Chart

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