**CHAPTER ONE**

**INTRODUCTION**

* 1. **Background of Study**

The Student Disciplinary Committee (SDC) is a crucial component within educational institutions responsible for maintaining a conducive and disciplined environment. Its primary purpose is to address violations of the established rules and regulations by students. Here's an overview of the SDC. The SDC is typically composed of faculty members, administrators, and sometimes students, depending on the institution's structure. The committee is often led by a senior faculty member or an administrator with experience in student affairs. The SDC enforces the institution's code of conduct and disciplinary policies. It ensures that students adhere to the established rules to maintain a respectful and safe environment. When a disciplinary issue arises, the committee conducts thorough investigations. This may involve gathering statements from involved parties, reviewing evidence, interviewing witnesses, conducting hearings to allow the accused students to present their side of the story. During these hearings, the committee assesses the evidence, listens to testimonies, and determines whether a violation has occurred. If a violation is established, the SDC imposes sanctions. Sanctions can range from warnings to community service to, suspension, or expulsion, depending on the severity of the offense, all these processes are assisted by a lot of documents.

The current paper-based approach to managing disciplinary affairs by the Student Disciplinary Committee (SDC) poses significant challenges, hindering the committee's transparency and responsiveness. This outdated approach, marked by manual record-keeping and delayed processes, time-consuming case resolution processes, error-prone documentation, limited accessibility to case information, poor transparency in case tracking, inefficient communication, difficult retrieval of information, negatively impacts the overall effectiveness of disciplinary procedures. Recognizing these challenges, there is a crucial need to transition to a technologically driven solution. The proposed Student Disciplinary Committee (SDC) Application is designed for efficiency, offering real-time updates, secure document storage, and communication tools. By streamlining processes and enhancing transparency, this application ensures a fair and effective resolution of disciplinary matters, ultimately contributing to a positive learning environment for all students.

With the rising number of cases as the university grows, it becomes increasingly difficult to manage disciplinary cases using the traditional paper-based model, there is need for a faster, friendlier, less cumbersome and generally a more reliable system. The SDC Application seeks to address this concerns by providing an innovative solution that leverages modern technologies (in the t3stack) to simplify case creations, resolutions, information retrieval, enhanced communication etc.

Multiple literature has been published on the importance of the Student Council in educational institutions, their responsibility in addressing indiscipline and constructing/updating what is popularly known as the Student Handbook. Discipline management are essential to successful schools (Blandford, 1998).

The implementation of the SDC Application is anticipated to have a profound impact on the university's disciplinary processes and overall learning environment. The transition to a streamlined, technology-driven system is expected to enhance efficiency, transparency, and fairness in managing disciplinary cases. Real-time updates and communication tools will facilitate quicker responses to issues, leading to more timely and effective resolutions. Ultimately, the positive outcome of this study would contribute to creating a conducive learning environment for all students, where disciplinary matters are handled with increased effectiveness and transparency amongst the academic/administrative.

* 1. **Statement of Problem**

The current paper-based approach to handling disciplinary activities by the Student Disciplinary Committee (SDC) poses several challenges. Inefficiency is a significant issue, as manual processes lead to delays in case creation, documentation, and resolution, impacting the overall efficiency of the committee. Transparency issues arise due to a lack of real-time communication, hindering the committee's ability to promptly address and analyze disciplinary cases. Additionally, delayed processes, cumbersome paperwork, and documentation challenges make it difficult to manage and organize paper documents, affecting the effectiveness of case management. Communication gaps further limit real-time updates, making it challenging for the committee to stay informed about the status of cases. These limitations collectively compromise the overall effectiveness of the disciplinary process, emphasizing the need for a transition to a more streamlined and technologically driven approach, such as the proposed Student Disciplinary Committee (SDC) Application.

Principles and Theories:

1. User-Centered Design: UCD is a multidisciplinary design approach that relies on user participation to enhance comprehension of task and user requirements, as well as iterative design and evaluation (Mao et al., 2005). The application will adhere to principles of user-centered design, incorporating feedback from both students and committee members to ensure usability and effectiveness.

2. Agile Methodology: Agile software development methodologies have been widely adopted and experimented with as it has been found to be a great practice better applications (Esfahani & Yu, 2010). The development process will follow agile principles, allowing for iterative improvements based on continuous feedback and evolving needs.

3. Transparency and Accountability: The application aligns with principles of transparency and accountability in organizational management, providing clear communication channels and documentation throughout the disciplinary process.

4. Technology Adoption Theory: The users are more likely to embrace effective use of new technologies if it is perceived as easy to use, provides clear advantages, and enhances their current practices.

5. Conflict Resolution Theories: The application's features for scheduled hearings and opportunities for appeal draw on principles of conflict resolution theories, aiming to facilitate fair and effective resolution of disciplinary matters.

* 1. **Research Question**

How can the implementation of the Student Disciplinary Committee (SDC) Application enhance the management of disciplinary cases within the university, addressing the current limitations of the paper-based system and fostering transparency, efficiency, and fair resolution?

The study aims to investigate the effectiveness of introducing a digital platform to streamline disciplinary processes, with a focus on user experience, transparency, and accountability. The primary purpose is to identify and implement improvements that contribute to a more efficient and equitable management of disciplinary cases, ultimately creating a conducive learning environment for all students.

**1.4 Aim and Objectives**

**Aim:**

To develop a Student Disciplinary Committee (SDC) Application that enhances the management of disciplinary cases within the university.

**Objectives:**

1. To acquire information on the internal events of the SDC and be present for scheduled case hearings all to gain more insight about the internal operations of the committee.

2. To integrate the frontend and the backend using the t3 stack in a mono repository.

3. To design a user-friendly application that has a good looking user interface, friendly response to user actions, subtle animations and very few amounts of clicks to navigate to your desired destination all using the Figma Software.

4. To implement the SDC Application using HTML, CSS, Next.js, TailwindCSS and the backend using TRPC (Typescript Remote Procedure Calls) and the database using Planetscale MySQL serverless database.

5. To test the SDC Application using Jest.

5. To deploy the application on a server-less platform using vercel.com

* 1. **Significance of the Study**

The Student Disciplinary Committee (SDC) Application holds immense significance in revolutionizing the management of disciplinary cases within educational institutions. Its key importance lies in addressing the shortcomings of the current paper-based system. The application enhances efficiency by streamlining case creation, documentation, and resolution processes, overcoming the delays and inefficiencies associated with manual methods. Furthermore, the SDC Application promotes transparency through real-time updates, scheduled hearings, and secure document storage, addressing the communication gaps present in the traditional approach. By leveraging technology, the application ensures a fair and effective resolution of disciplinary matters, contributing to a positive learning environment for all students. Overall, the SDC Application is a transformative tool that not only simplifies administrative tasks but also upholds transparency and accountability, fostering an improved disciplinary process.

**1.6 Scope of Study**

The scope of this study is centered around the implementation and impact assessment of the Student Disciplinary Committee (SDC) Application within the university environment. The study encompasses the development, deployment, and evaluation phases of the application. The geographical scope is limited to the university campus, where the application will be tested and refined based on user feedback.

Note:

1. Application Development: The study involves the design, development, and deployment of the SDC Application, ensuring its compatibility with the existing university systems.

2. User Feedback and Refinement: Feedback from both SDC committee members and offenders is a crucial aspect. The study includes mechanisms for collecting, analyzing, and incorporating feedback to enhance the application's functionality and user experience.

3. Evaluation of Impact: The study assesses the impact of the SDC Application on the efficiency, transparency, and fairness of the disciplinary process. Key performance indicators will be used to measure the success of the application.

4. In-Campus Cases: The study is confined to disciplinary cases that occur within the university premises. Cases related to off-campus incidents fall outside the scope of this research.

5. Legal Framework: While the application aims to enhance fairness in disciplinary proceedings, the study does not delve into the legal intricacies associated with disciplinary matters.

6. External System Integration: The scope is limited to the standalone functionality of the SDC Application within the university's administrative framework. Integration with external systems is excluded from this study.

**1.7 Organization of the Study**

Chapter one is the study’s introduction that includes information on its background, scope, significance, goal, aims and objectives.

Chapter two deals with the basic analysis in literature review of the project dealing with the introduction of the research topic, historical context of the topic, key concepts, methodologies used and research design and theoretical contributions.

Chapter three incorporates the system/project and research design methodology which includes the approaches to research, hypothesis and research question, software development methodology and various data collection schemes.

Chapter four deals with implementation and testing of the system comprising of its database, unit testing, usability testing and deeper discussions about the project.

Chapter five basically rounds up the project in conclusion, with summary and various recommendations and all references.

**1.8 Acronyms**

SDC: Student Disciplinary Committee

UCD: User-Centered Design

**1.9 Definition of operational terms**

**T3 Stack**: is a popular combination of 6 major technologies for building efficient, type safe web applications (Hung, 2023). These 6 major technologies are Typescript, Tailwind CSS, Next.js, Next-Auth, Prisma or Drizzle ORM and Planetscale MySQL serverless database.

**References**

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