Tac Portal

1. Introduction

1.1. Purpose:

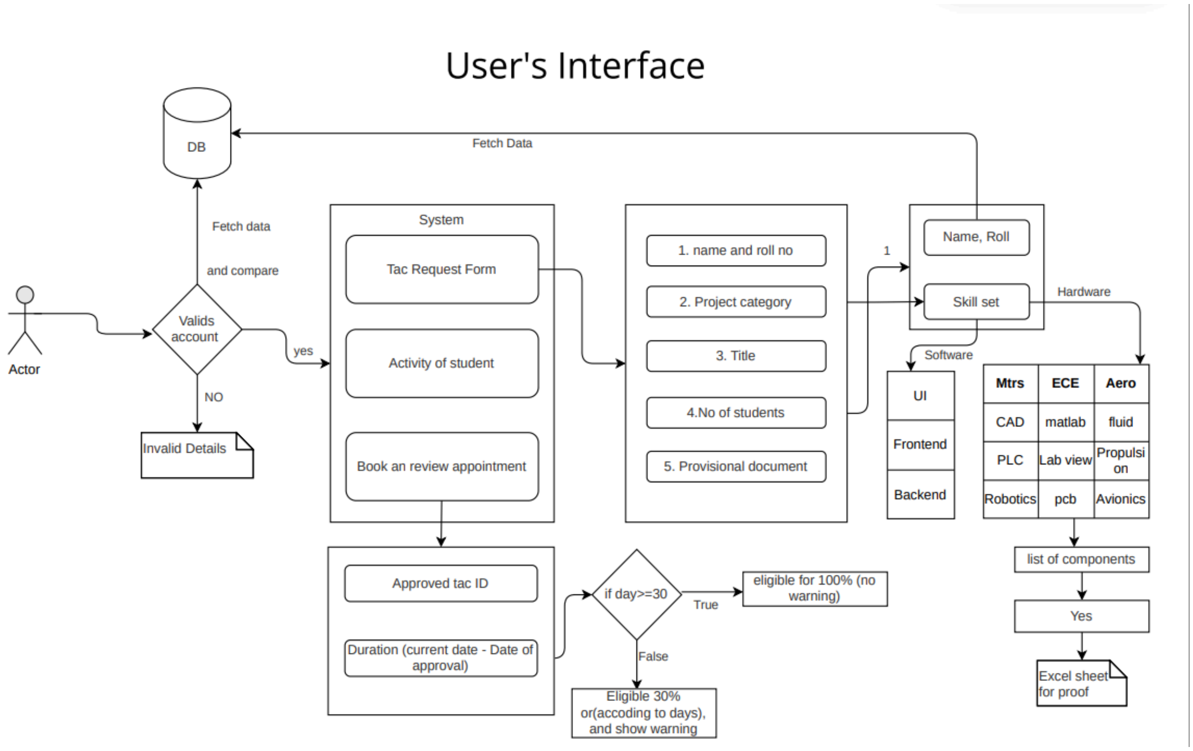
The purpose of this document is to present a detailed description of the Tac portal. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli.

1.2. Scope of Project:

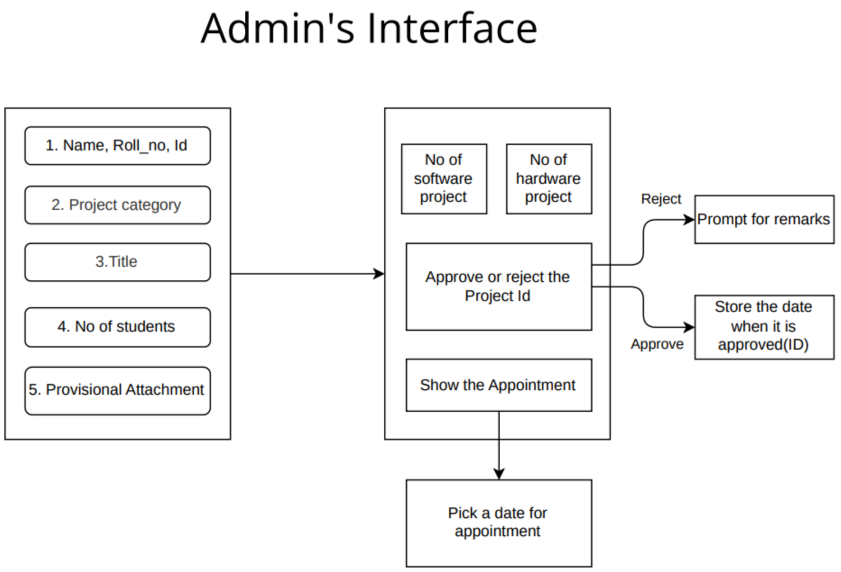
- This software system will be a tac portal system which helps the students to apply their projects and claim their rewards, this system will be helpful from an admin point of view to see the **analytical dashboard view of the projects**.

- Admin can approve/ reject the projects, based on that students can **book an appointment** on their accepted Ptac ID, while doing that calculate the date of approval from admin and the current date from that is the date is less than 5 then shows a warning [you can claim 30% of rewards => based on the number of days]

1.3. Overall Diagram



Mtrs	ECE	Aero
CAD	matlab	fluid
PLC	Lab view	Propulsion
Robotics	pcb	Avionics



3. Functional Requirements Specification:

3.1. Form Request:

Students can input relevant details regarding their project application including project title, description, objectives, and any necessary attachments. Upon completion, the application is submitted to the admin interface for review and further processing

3.2. Student's View:

Students can access a dashboard displaying a summary of their projects categorized as either software or hardware. Additionally, a bar graph visually represents the distribution of project applications by month, indicating the number of projects applied for each month. This provides students with insights into their project activities over time.

3.2.1. Activity -> In this option students can view their project details in a table view and also the status of the Project [Initiated or Accepted/Rejected]

3.3. Appointment Booking:

Upon appointment booking, the system checks the approval date of the TAC ID. If it's less than 30 days from the current date, a warning is displayed regarding reward claims. If it's exactly 30 days, no warning is shown.

3.4 Admin’s View:

In the admin interface, there's a dashboard displaying the number of requests categorized by software or hardware projects. Upon clicking, a detailed view of the requesting data appears in a table format. Admins have the authority to approve or reject projects directly from this view. Additionally, they can set appointment dates for specific requests associated with particular TAC IDs.

4. Non-Functional Requirements:

- **Performance**: The system must respond to user actions within 2 seconds to ensure efficient usability and must handle a concurrent user load of at least 100 users without significant performance degradation.
- **Security**: User data must be encrypted during transmission and storage, and access to sensitive functionalities should be restricted to authorized admin users through secure authentication mechanisms.
- **Usability**: The user interface should be intuitive and user-friendly, with clear and concise error messages provided to guide users in case of input errors or system failures.
- **Reliability**: The system should be available 24/7 with minimal downtime and should have a backup and recovery mechanism in place to prevent data loss in case of system failures or crashes.
- **Scalability**: The system should be designed to accommodate an increasing number of users and data volume over time, and it should be scalable to support additional features and functionalities as per future requirements.

Stack:

Front End	Vue Js, Tailwind css
Backend	Node Js, Express
Data Base	MongoDB