Advanced frontend features (e.g., forms with validations, dynamic content)

- **Dynamic Form Fields for Team Members** – When entering project details, users can dynamically add or remove team members. The UI automatically generates new input fields for name, roll number, and special lab, ensuring flexibility in team composition.

- **Real-Time Validation & Error Handling** – Fields like email, roll number, and required inputs are validated instantly. Error messages highlight incorrect entries, ensuring only valid data is submitted.

- **Conditional Field Unlocking** – Fields like GitHub and Demo Video links remain disabled until all project weeks are completed. Similarly, weekly work log checkboxes unlock dynamically every 7 days from the project's start date.

- **Live Search & Filtering in Project/Achievement Views** – Students and faculty can instantly filter projects and achievements based on department, special lab, year, or project status, enhancing data retrieval efficiency.

Forms like Project Entry, Registration Form, Task Management will have advanced frontend features

Project Entry:

Real-time Form Validations

- Ensure required fields (e.g., Team Leader Name, Roll Number, Project Title) are not left empty before submission.
- Display error messages dynamically when incorrect data is entered.

Dynamic Team Member Addition

- Clicking "Add Member" dynamically generates new input fields for Name, Roll Number, and Special Lab.
- If "Yes" is clicked for additional team members, show the next set of fields automatically.

Live Firebase Data Fetching & Autocomplete

- Auto-fetch Special Lab, Department, and Year based on the Team Leader's Roll Number (if previously registered).
- Dropdown suggestions for Guide Name based on faculty in Firebase.

Multi-Step Form

- Divide the form into sections (Basic Info, Team Details, Project Details, Links) with a progress bar.
- Users can navigate between steps without losing entered data.

Real-time Submission Feedback & UI Enhancement

- Show a loading animation when submitting the form.
- A success toast message will appear after successful submission, with a "View Project" button.
- If a submission fails, display a detailed error message and suggest corrective actions.

Project Registration :

Register

Name

Enter your name

ID (Faculty ID / Student ID)

Enter your ID

Department

Item 1 ▾

Special Lab

Item 1 ▾

Register

1. Real-time Form Validation

- Validate name, ID, and department selection dynamically.
- Show error messages (e.g., "Name cannot be empty," "Invalid ID format") as users type.
- Use TextWatcher for `EditText` and `setError()` for immediate feedback.

2. Conditional UI Based on Role Selection

- If faculty is selected, hide the "Year" dropdown.
- If student is selected, show the "Year" dropdown dynamically.
- Use View.VISIBLE / View.GONE to modify UI elements based on selection.

3. Firebase-Based Auto-Fill

- Pre-fill name and email from Firebase Authentication.
- Disable editing for pre-filled fields to avoid manual changes.
- Auto-select the user's department if previously stored.

4. Animated UI Transitions

- Use MotionLayout or Material Design animations when switching between faculty and student modes.
- Fade-in effects for form fields, buttons, and success messages for smooth interaction.

3. Task Management :

Project Duration:

Select Start Date

Dynamic Week Log Generation

- Auto-generates week-wise input fields based on project duration.
- Each week has a description field + checkbox for completion tracking.

Smart Validation & Auto-Save

- Prevents empty submissions by disabling checkboxes until text is entered.

Time-Based Checkbox Unlocking

- Checkboxes remain disabled until 7 days have passed from the Start Date.
- Uses real-time date tracking to unlock checkboxes only when eligible.

Persistent Data Retrieval

- Fetches previously entered week logs from Firebase on login.
- Disables already submitted fields & checkboxes to prevent re-editing.

Interactive UI with Animations

- Uses color coding (e.g., green for completed weeks, grey for pending).