

Full-Stack Project Work Flow

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Problem Statement:	Project Work Mark Consolidation System

Project Flow:

1. User Authentication:

- **Technologies Used:** Vue.js for the front-end, Node.js and Passport.js for back-end authentication, and Google OAuth for student login.
- **Process:**
 - Users (students, guide staff, admin) log in using their Google credentials.
 - The system authenticates the users, granting access based on their role (student, guide staff, or admin).

2. Mark Calculation:

- **Technologies Used:** Node.js for back-end processing, Express.js for API development.

- **Process:**
 - The system calculates each student's project marks based on rules defined by the admin.
 - Marks are stored in a MongoDB database for easy access and modification.

3. Dynamic Dashboard:

- **Technologies Used:** Vue.js for the user interface, Tailwind CSS for styling, and MongoDB for data storage.
- **Process:**
 - Students can view their project marks in a real-time dashboard.
 - Guide staff can monitor the progress of the students they are mentoring by accessing their marks.
 - Admins have additional functionalities like viewing all students' marks, editing marks, and applying moderation if necessary.

4. Mark Moderation (Admin Only):

- **Technologies Used:** Node.js, Express.js for server-side operations.
- **Process:**
 - Admins can modify marks or apply moderation to ensure fairness and consistency.
 - Moderated marks are updated in the system and reflected in students' dashboards.

5. System Output:

- **Technologies Used:** MongoDB for data storage, Vue.js for the front-end display.
- **Process:**
 - The final marks are displayed to students, guide staff, and admins through their respective dashboards.
 - The system ensures real-time updates and reflects any changes made by the admin.

Flow Chart:

