PROPOSED TITLE:

Nexus Hub

APPLICANTS AND INVENTORS:

- Jhalak Saxena
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FIELD OF INVENTION:

Employing project management solutions to develop a collaborative platform for college students to create and manage projects.

BACKGROUND:

The traditional approach to managing student projects across universities and colleges often faces challenges like lack of coordination and fragmented communication channels. Existing solutions do not provide a unified platform to streamline project management and collaboration efforts. Thus, there is a need for an integrated online platform tailored to the specific requirements of student-led projects.
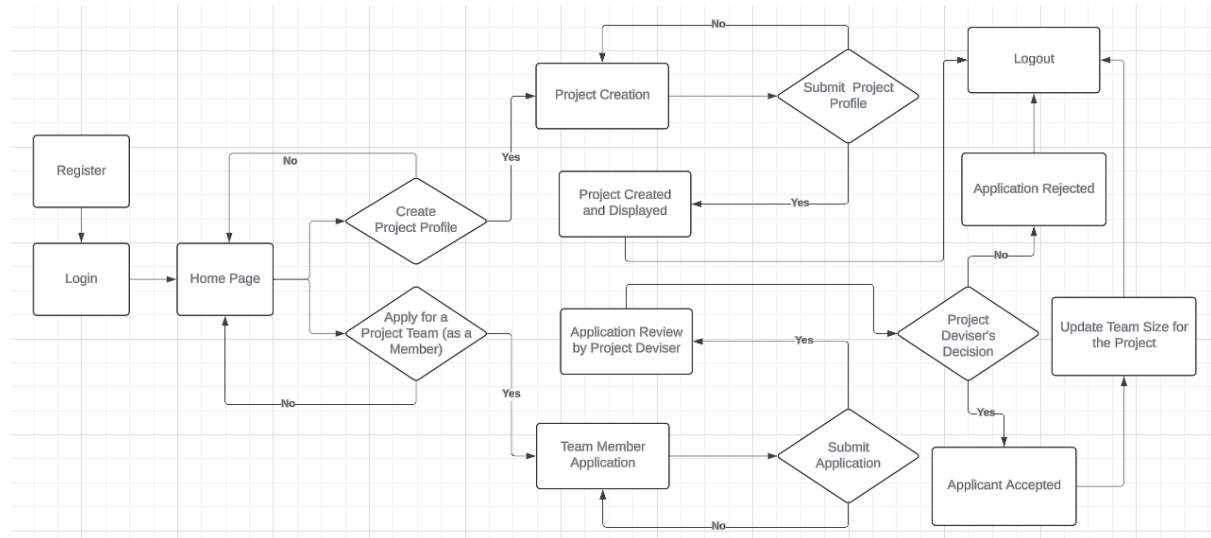
OBJECTIVES:

1. Developing an innovative online platform aligning with project management requisites like looking for team members, creating project details, and applying as a project contributor.

2. Enabling efficient collaboration through integrated communication.

3. Providing a platform to support project development.

4. Facilitating project showcase opportunities for students to engage with potential team members.

5. Integrating GitHub profiles with the platform to offer candidate reviewing opportunities for project managers.

CLAIMS:

1. The platform streamlines project management processes, enhancing coordination and efficiency among student teams.

2. The integrated communication features facilitate seamless collaboration among team members.

3. The platform's scalability and flexibility make it adaptable to various educational institutions and project types.

FLOW CHART/MODEL:

TECHNOLOGY USED:

- Frontend: ReactJS, Bootstrap, CSS
- Backend: Node.js, Express Framework
- Database: MongoDB ATLAS

PROPOSED METHODOLOGY:

Methodology includes the introduction of different modules that we are going to incorporate into our website:
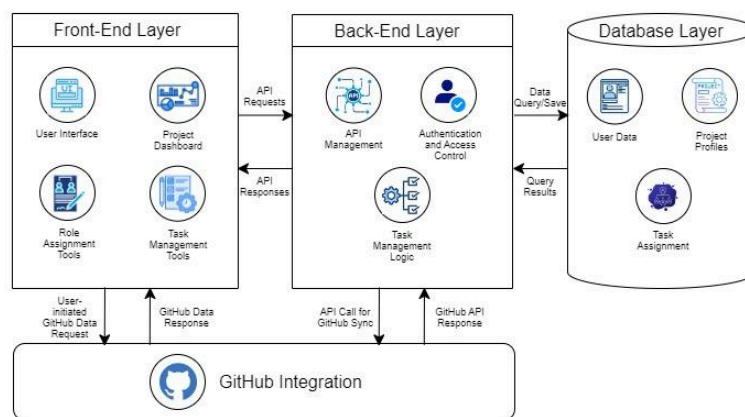
- **Authentication and Access Control:**
  - Implementing robust authentication mechanisms to ensure secure user access.
  - Integrating role-based access control to manage user permissions effectively.

- **Project Management Module:**
  - Developing a user-friendly interface for creating and managing project teams.
  - Incorporating features for assigning roles, creating tasks, and tracking project progress.
  - Utilizing priority queues for efficient task scheduling and deadline management.

INTERFACE:

The platform features a professional, user-centric interface to address the needs of students and educators effectively. Key components include:

- **Dashboard:** A personalized workspace displaying ongoing projects, tasks, and deadlines, tailored to individual user roles.
- **Project Hub:** A centralized section for creating, viewing, and managing project teams, equipped with efficient search and filter options to streamline access.
- **Profile Integration:** Dedicated user profiles that highlight skills, contributions, and GitHub repositories to enhance visibility and collaboration opportunities.
- **Admin Panel:** A robust management module for institutional administrators to oversee platform activities and user accounts.

ARCHITECTURE:

ABSTRACT:

The 'Online Integrated Platform for Student Projects' aims to serve as a centralised hub and web application enabling seamless team collaboration and project management capabilities for student-led projects across various colleges and universities.
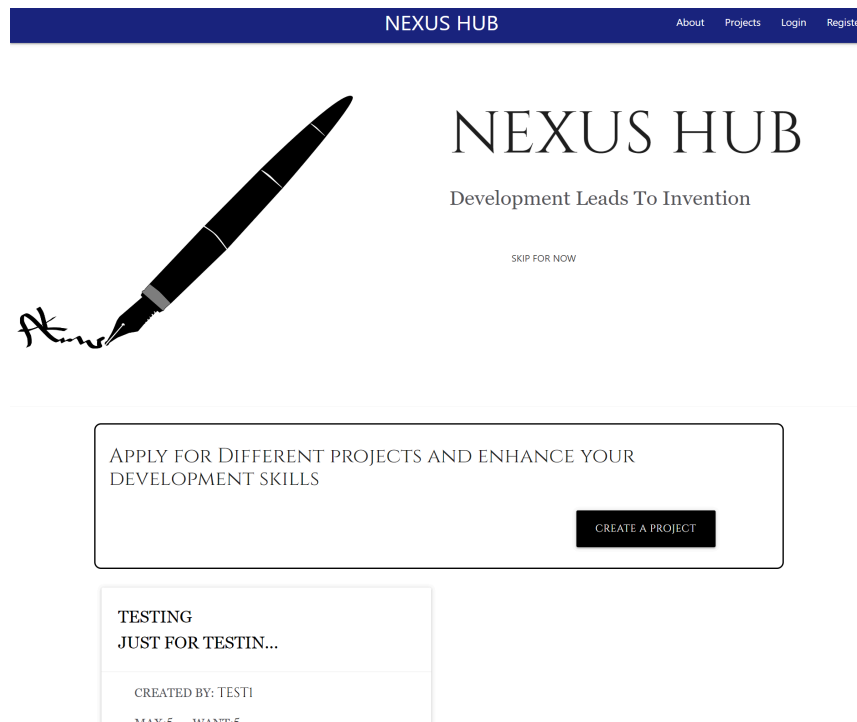
The key motivation stems from challenges students face in coordinating with team members spread across institutions, lack of structured tools for project coordination and tracking, and limited access to collaboration and networking opportunities.

The platform will have a robust authentication module for user login based on institutional email IDs. Students can create project profiles, assign roles, create tasks and track progress.

A peer review system facilitates project quality evaluation from faculty and students. The portal allows projects to be highlighted through a description to enable exposure and future opportunities. The stack majorly comprises ReactJS, Node, and MongoDB.

Key impact areas include enhanced team coordination, project management, talent recognition, and community building across member institutions to bolster learning and innovation.

SCREENSHOTS:

END USERS:

- College Students
- Institutional Professors
- Universities

ADVANTAGES:

- Improved coordination and efficiency in project management
- Seamless collaboration and communication among project managers
- Increased visibility and networking opportunities for students
- Facilitates innovation and knowledge exchange in higher education

CONCLUSION:

Nexus Hub, as the integrated online platform for collaborative student projects, offers a comprehensive solution to streamline project management processes and enhance collaboration opportunities. By addressing the key challenges students and educators face in managing cross-institutional projects, the platform contributes to advancing project-based

learning and innovation in higher education. With its user-centric design, robust features, and scalability, the platform has the potential to transform the landscape of student project management and foster a culture of collaboration and excellence in education.

SIGNATURE OF APPLICANT:

Jhalak Saxena