

# IITGN

## Hack Rush' 25

### Problem Statement 1[A]:



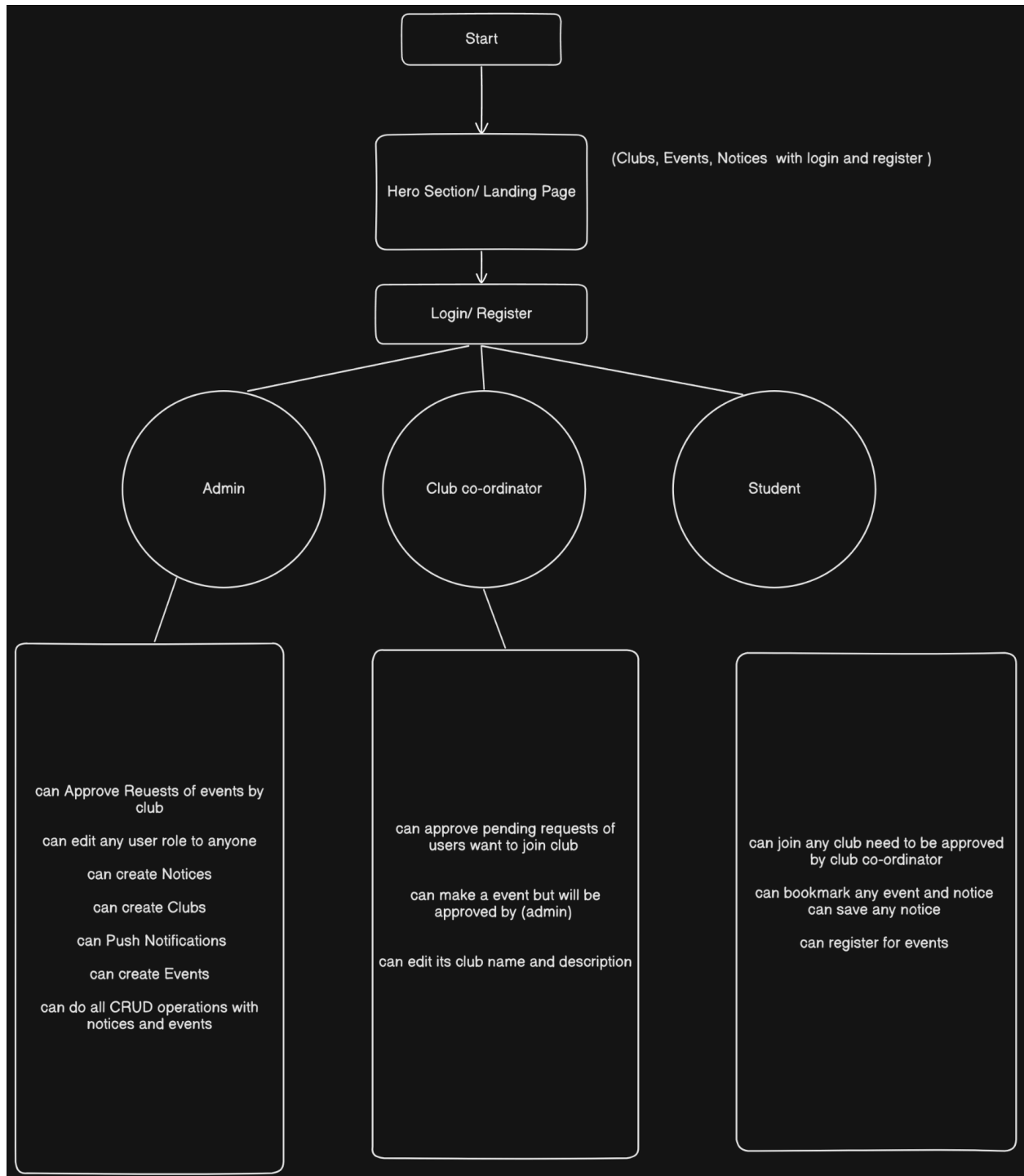
## Unified College Hub to Track Software Development

#### Description:

The solution aims to develop a centralized platform for managing and streamlining software development activities within a college environment. It includes user role-based access, club and event management, notices, and calendar integration — all built using a modern tech stack with a responsive UI.

~ Himanshu Singhal

# System Architecture:



# Tech Stack:

## **Frontend:**

- React vite + PWA ( Progressive Web App)
- Tailwind CSS (v4.1.3)
- Shadcn UI Components

## **Backend:**

- Node.js
- Express.js
- MongoDB (Database)
- JWT for Authentication

# **Core Features:**

## User Management:

Roles: Student, Coordinator, Admin — each with custom access controls.

## Club Management:

Users can create, join, and manage clubs easily.

## Event Management:

Events can be created by coordinators and approved by admins. Students can register and participate.

## Notice System:

Admins and Coordinators can post important announcements.

## Calendar Integration:

View events in a calendar format

## Responsive Design:

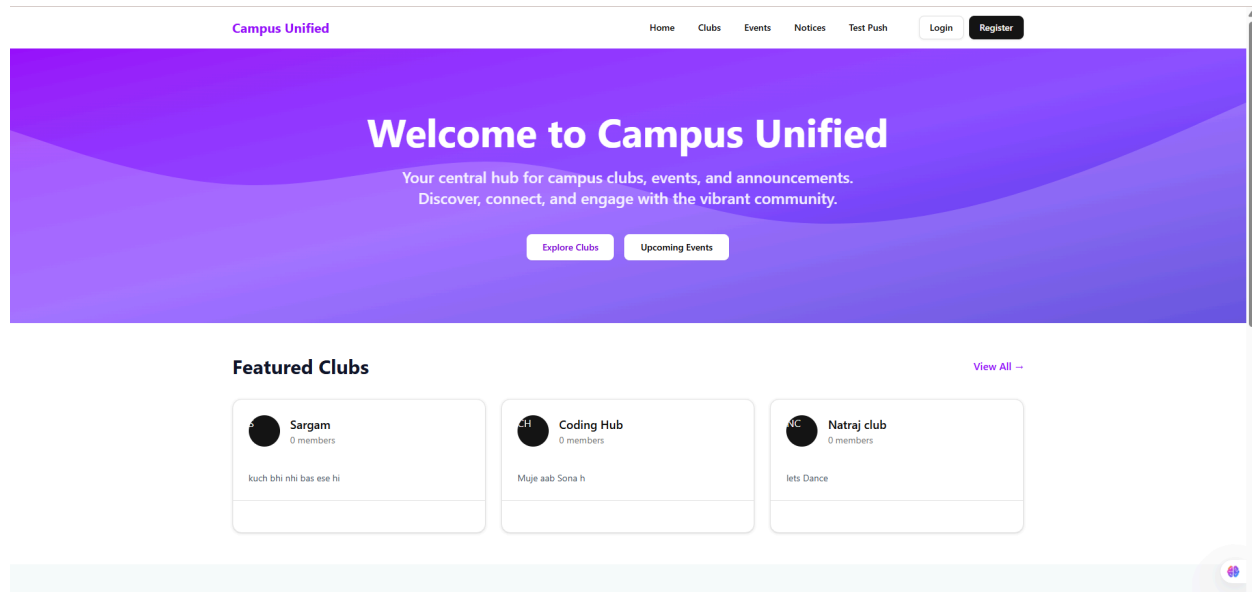
Mobile-first design — It works smoothly on all devices.

# **Learnings:**

- ✓ Implemented ShadCN UI library efficiently with Tailwind
- ✓ Managed multiple dashboards for different user roles
- ✓ Applied role-based access control
  - Each role accesses only its allowed routes and controllers
- ✓ Strengthened understanding of secure JWT-based authentication
- ✓ Enhanced project structuring and API route protection with middleware

# A Quick Demo:

## Home Page:



## Login/ Register

### Login to Campus Unified

Enter your credentials to access your account

**Email**

**Password**

[Login](#)

Don't have an account? [Register here](#)

### Create an Account

Sign up to access campus clubs, events, and notices

**Full Name**

**Email**

**Password**

**Confirm Password**

[Register](#)

Already have an account? [Login here](#)

# Dashboards

## Student Dashboard

My Clubs

2 joined clubs

Coding Hub

Natraj club

My Events

1 registered events

sadasdas

4/8/2025 • Natraj club

My Bookmarks

1 bookmarked events

sadasdas

4/8/2025 • Natraj club

My Clubs

My Events

Bookmarked Events

Saved Notices

CH

Coding Hub

0 members

Muje aab Sona h

Joined

NC

Natraj club

0 members

Iets Dance

Joined

## Admin Dashboard

Manage Notifications

Create Event

Create Notice

Create Club

Users

Total registered users

8

Clubs

Total active clubs

3

Pending Events

Events awaiting approval

0

Users

Events

Clubs

Notices

Users

Manage registered users

Name	Email	Role	Actions
sample_student	sample_student@gmail.com	student	Edit
sample_admin	sample_admin@gmail.com	admin	Edit
sample_coordinator	sample_coordinator@gmail.com	club-coordinator	Edit

## Coordinator Dashboard

[Edit Club](#)[Create Event](#)**Name**

sample\_coordinator

**Email**

sample\_coordinator@gmail.com

**Role**

club-coordinator

**Natraj club**

Club Overview

lets Dance

MEMBERS

4

PENDING REQUESTS

0

EVENTS

2

[Members](#)[Membership Requests](#)[Events](#)[Calendar](#)

## Different Pages :

### Clubs

**Sargam**

0 members

kuch bhi nhi bas ese hi

[Join Club](#)**Coding Hub**

0 members

Muje aab Sona h

[Join Club](#)**Natraj club**

0 members

lets Dance

[Join Club](#)

### Events

[List](#)[Calendar](#)[All](#)[Today](#)[Upcoming](#)[Past](#)**Dance\_comp**

By Natraj club

Upcoming

show your skills set stage on fire

📅 Monday, April 7, 2025

🕒 09:00

📍 Jasubai

[Register](#)[Bookmark](#)**sadasdas**

By Natraj club

Upcoming

asaasdasda

📅 Tuesday, April 8, 2025

🕒 10:23

📍 lets go to sun :)

[Register](#)[Bookmark](#)

Events

Search events...

List

Calendar

April 2025

Previous

Next

Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31	1	2	3	4	5
6	7 09:00 Dance_comp	8 10:23 sadasdas	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3
4	5	6	7	8	9	10

Upcoming Events

Apr 7	Dance_comp Jasubai • 09:00 • Natraj club
Apr 8	sadasdas lets go to sun :) • 10:23 • Natraj club

Notices

Search notices...

All

Academic

Announcement

Workshop

Meeting

Deadline

Event

<p>earth quack</p> <p>By Unknown club</p> <p>tomorrow</p> <p>Save Notice</p> <p>general</p>	<p>Sleep now</p> <p>By Unknown club</p> <p>kal</p> <p>Save Notice</p> <p>campus</p>
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