

Day 2: Roles & Access Control

Each user in the system has exactly one role. Role switching is strictly prohibited. Roles: • Participant (IIIT / Non-IIIT) • Organizer • Admin

Access Rules

Page / Action	Participant	Organizer	Admin
Register	Yes	No	No
Login	Yes	Yes	Yes
Create Event	No	Yes	No
Register for Event	Yes	No	No
Manage Clubs	No	No	Yes

These rules directly guide JWT authentication and role-based middleware.

Database Models Overview

Design database schemas before writing any code. This prevents redesign and bugs later.

User (Base Model)

Fields: • `_id` • `firstName` • `lastName` • `email` (unique) • `password` (hashed) • `role` (participant / organizer / admin) • `createdAt`

Participant Profile

Fields: • `userId` (reference to User) • `participantType` (IIIT / NON_IIIT) • `collegeOrOrg` • `contactNumber` • `interests` (array of strings) • `followedOrganizers` (array of organizer IDs)

Organizer

Fields: • `_id` • `name` • `category` • `description` • `contactEmail` • `contactNumber` • `loginUserId` (reference to User) • `isActive`

Event

Fields: • `_id` • `name` • `description` • `type` (NORMAL / MERCH) • `eligibility` • `registrationDeadline` • `startDate` • `endDate` • `registrationLimit` • `fee` • `organizerId` • `tags` • `status` (DRAFT / PUBLISHED / ONGOING / CLOSED) Extra: • Normal Event: `customForm` (JSON) • Merchandise Event: `items` (size, color, stock, limit)

Registration / Ticket

Fields: • _id • eventId • participantId • status (REGISTERED / CANCELLED / REJECTED) • ticketId • qrCode • createdAt

API Route Planning

Auth: POST /auth/register POST /auth/login POST /auth/logout Participant: GET /participant/profile PUT /participant/profile GET /participant/events Events: GET /events GET /events/:id POST /events/:id/register Organizer: POST /organizer/event PUT /organizer/event/:id GET /organizer/events Admin: POST /admin/create-organizer DELETE /admin/organizer/:id

Folder Structure

Backend: backend/ controllers/ models/ routes/ middleware/ config/ app.js server.js Frontend: frontend/ src/ pages/ components/ services/ context/ App.js

Advanced Feature Selection

Tier A: • QR Scanner & Attendance Tracking • Merchandise Payment Approval Tier B: • Organizer Password Reset Workflow • Real-Time Discussion Forum Tier C: • Add to Calendar Integration
These features must be frozen early to avoid redesign.