

# HackOverflow

## Mode of Participation

Online

## Team Composition

1 to 3 members

## Duration

25 January 2026 – 1 February 2026

---

## About HackOverflow

HackOverflow is a 7-day intensive online hackathon designed to evaluate participants on creativity, technical depth, and collaborative problem-solving skills. Participants are required to plan, design, and develop a fully functional full-stack web or application-based project within the stipulated timeframe.

---

## Rules & Regulations

- Participants may use any technology stack, unless stated otherwise in the problem statement.
- The submitted project must be original and developed entirely during the hackathon period. Projects with GitHub commits dated before the start or after the end of the hackathon will not be considered.
- The project must implement all core functionalities specified in the selected problem statement. Incomplete projects may be rejected.
- Participants must maintain professional, ethical, and respectful behavior throughout the event. Any form of harassment, abuse, or disruptive behavior will result in immediate disqualification.

- Providing false information, misrepresentation of work, or violation of any rules will lead to disqualification.

---

## **Submission Details**

All submissions must be made on Unstop only. Submissions through any other medium will not be considered. Late or missing submissions will result in direct disqualification.

Participants must submit the following on the Unstop platform:

- **GitHub Repository Link:** If frontend and backend are in separate repositories, links to both must be provided.
- **Project Presentation Video:** A video explaining the project workflow and functionality. Ensure clear audio and video quality.
- **Project ZIP File:** The complete project source code compressed into a ZIP file.
- **Mobile Application (if applicable):** .apk / .ipa file must be submitted.
- **Live Deployment Link:** URL of the hosted project.

---

## **Evaluation Criteria**

Scoring will be primarily based on the project presentation.

Projects will also be evaluated on the following parameters:

- Creativity and Innovation
- UI/UX Design
- Completion and Elegance
- Scalability and Saleability
- Realistic Capability and Practicality
- Coding Practices and Code Quality

Deployment of the project is compulsory. The decision of the Judging Committee shall be final and binding.

---

## **Some Points to Remember**

- The primary objective of this event is learning.
  - Even if the project is not completed within the hackathon duration, participants are encouraged to continue working on it at their own pace to achieve a complete full-stack application.
  - Any queries related to the event or web development in general may be raised in the official WhatsApp group.
- 

## **Problem Statements**

### **Problem Statement 1: Unified Campus Resource & Event Management System**

Design and develop a comprehensive full-stack web platform that centralizes the management of campus resources, student clubs/committees, and events. The system should support real-world campus workflows, enforce proper access control, and provide actionable insights through analytics.

#### **Objective**

To replace fragmented tools (forms, spreadsheets, messaging apps) with a single, secure, and scalable platform for managing campus activities, collaborations, and shared resources.

#### **Core Functional Requirements**

##### **Authentication & Authorization**

- Secure user authentication (email/password, OTP verification, OAuth optional).
- Role-based access control (RBAC) with clearly defined permissions:

- Admin: System-level control, approvals of events/members, analytics, resource management.
- Organizer: Club/committee leads who can create and manage events/resources.
- Participant: Club members and general users.
- Fine-grained permissions (e.g., event approval rights, resource booking rights).

## **User Profiles & Community Membership**

- Individual user profiles containing:
  - Basic details (name, department, year, role).
  - Clubs/committees the user is a member of.
  - Clubs/committees the user heads or coordinates.
- Support for multiple memberships across clubs, committees, or communities.
- Visibility controls for public and internal profile details.

## **Event Lifecycle Management**

- End-to-end event workflow:
  - Event creation by organizers.
  - Admin-based approval flow.
  - Event publishing with visibility rules.
- Support for:
  - Single-day and multi-day events.
  - Collaborative events involving multiple clubs or committees.
  - Draft, approved, rejected, and completed event states, including budget tracking.

## **Resource Booking System**

- Centralized management of campus resources:
  - Rooms, halls, labs.
  - Equipment (projectors, cameras, sound systems, etc.).
- Booking features:
  - Time-slot-based reservations.
  - Automatic conflict detection and prevention.
  - Configurable approval-based or auto-approved bookings.
- Booking history and usage logs.

### **Analytics & Insights Dashboard**

- Admin dashboards displaying:
  - Event participation trends.
  - Club-wise activity and engagement metrics.
  - Resource utilization rates.
  - Budget usage.
- Exportable reports in CSV and Excel formats.

### **Extended / Value-Added Features**

#### **In-App Communication**

- Built-in messaging system supporting:
  - One-to-one messaging.
  - Group chats for clubs, committees, or event teams.
- Context-aware communication (event-specific or project-specific chats).

#### **Multi-Club Collaboration**

- Ability to:
  - Create joint events managed by multiple clubs.

- Assign roles and permissions per collaborating club.
- Track contributions and participation across clubs.

## **Notifications & Reminders**

- Automated notifications for:
    - Event approvals or rejections.
    - Upcoming events and deadlines.
    - Resource booking status updates.
- 

## **Problem Statement 2: Smart Hostel Issue Tracking System**

Design and develop a full-stack web platform that enables students and hostel/campus authorities to efficiently report, track, and resolve hostel-related issues. The system should improve transparency, reduce response time, and provide data-driven insights into recurring infrastructure problems.

### **Objective**

To replace informal complaint methods (verbal complaints, WhatsApp groups, paper registers) with a structured, accountable, and traceable digital system for hostel and campus facility management.

### **Core Functional Requirements**

#### **Authentication & Role-Based Access Control**

- Secure authentication system with clearly defined roles:
  - Student: Can report issues, view status, and interact with announcements.
  - Management: Full system control, issue assignment, analytics, and moderation. Can view assigned issues, update status, and add remarks.
- Access and visibility strictly governed by role permissions.

## **Issue Reporting System**

- Students can report issues with:
  - Category (plumbing, electrical, cleanliness, internet, furniture, etc.).
  - Priority level (low, medium, high, emergency).
  - Description with optional media uploads (images/videos).
- Issue visibility options:
  - Public issues visible to all users.
  - Private issues visible only to hostel management and relevant staff.
- Automatic tagging with hostel, block, and room based on user profile.

## **Issue Status Workflow**

- Defined lifecycle: Reported → Assigned → In Progress → Resolved → Closed
- Assignment to specific caretakers or maintenance teams.
- Timestamp tracking for all status changes.

## **Hostel-Specific News & Announcements**

- Announcement system for updates such as:
  - Cleaning schedules.
  - Pest control drives.
  - Water or electricity downtime.
  - Maintenance notices.
- Announcements targeted by hostel, block/wing, and user role.

## **Lost & Found Module**

- Section for reporting lost or found items within hostel premises.

- Features include item description, location, date, images, and status (lost, found, claimed).
- Claim workflow through the platform with admin or caretaker moderation.

### **Analytics & Monitoring Dashboard**

- Management dashboard displaying:
  - Most frequently reported issue categories.
  - Hostel/block-wise issue density.
  - Average response and resolution times.
  - Pending vs resolved issue ratios.
  - Public issues only.

### **Extended / Value-Added Features**

#### **Community Interaction**

- Interaction on public issues and announcements through comments, threaded replies, and reactions.
- Helps validate recurring issues and highlight urgency.

#### **Duplicate Issue Management**

- Ability to merge similar or duplicate issues while preserving all reporters under a single resolution workflow.

---

## **Problem Statement 3: Alumni Engagement & Networking Platform**

Design and develop a full-stack web platform that strengthens long-term connections between alumni and students. The system should enable professional networking, mentorship, career guidance, and institutional engagement in a structured and trustworthy manner.

### **Objective**



To create a centralized, verified, and purpose-driven alumni ecosystem that actively supports student growth, alumni visibility, and institutional collaboration.

## **Core Functional Requirements**

### **Roles & Access Control**

- Defined user roles:
  - Admin/Faculty: Moderation, verification, analytics, and governance.
  - Alumni: Verified graduates with extended engagement capabilities.
  - Student: Current students seeking guidance and opportunities.

### **Alumni Verification & Profile Management**

- Mandatory alumni verification through institute-approved mechanisms.
- Rich alumni profiles with education details, graduation year, department, current role, organization, industry, or startup information.
- Profile updates for job changes, startups, promotions, and milestones.
- Moderated visibility requests for funding, promotions, or announcements.

### **Opportunities, Mentorship & Engagement**

- Alumni-driven postings for mentorship, jobs, internships, and events.
- Students can apply, request mentorship, or register interest with filtering options.

### **Referral & Guidance System**

- Structured referral requests with approval, decline, or guidance options.

- Anti-spam safeguards including request limits and moderation.
- Dedicated guidance section for careers, industry insights, higher studies, and entrepreneurship.

### **Interview Experience Knowledge Base**

- Curated, blog-style repository of interview experiences.
- Filterable by company, role, domain, and difficulty level.
- Contributions moderated and focused on learning.

### **Analytics & Insights**

- Admin dashboards for alumni participation, student–alumni interactions, mentorship activity, and popular domains or roles.
- 

## **Problem Statement 4: Campus Commute, Assistance & Activity Coordination Platform**

Design and develop a full-stack web platform that enables students to coordinate travel plans, request or offer assistance, and handle urgent or emergency needs within and around the campus in a structured and secure manner.

### **Objective**

To reduce friction in daily campus life through real-time coordination of travel, shared errands, emergency communication, and priority-based help requests.

### **Core Functional Requirements**

#### **Travel & Movement Announcements**

- Users can post travel intentions such as leaving campus, returning, or traveling to nearby places.
- Each post includes date, time, origin, destination, and optional mode of travel.

- Automatic notifications to users with matching or overlapping schedules.

### **Item & Errand Requests**

- Public requests for small items or errands (kettles, USB drives, stationery, etc.).
- Requests to purchase items from nearby locations when users are already traveling there.
- Optional acceptance flow to avoid duplication.

### **Carpool & Delivery-Style Assistance**

- Carpool coordination with ride offers, requests, and seat limits.
- Campus-scale delivery-style assistance without payments or commercial workflows.
- Users can post ongoing orders from platforms such as Zomato, Swiggy, or Blinkit, allowing others to request items, which the original poster may accept or decline.

### **Emergency Location Sharing**

- One-tap live location sharing during emergencies.
- Location sharing with admins, management, or selected campus members.
- Time-bound access with automatic revocation.

### **Urgent Help & Service Requests**

- Priority-based requests for medical, safety, or urgent assistance.
- Categorization by urgency level.
- High-priority requests trigger instant notifications and escalation.
- Status tracking from request initiation to resolution.

### **Extended / Value-Added Features**

#### **Smart Matching & Notifications**

- Automatic matching of travel plans, item requests, and carpool availability.
- Intelligent notifications to prevent spamming.

### **Safety, Privacy & Moderation**

- Role-based visibility for sensitive requests.
- Admin oversight to prevent misuse.
- Audit logs for emergency actions without exposing unnecessary personal data.