



You can choose any one problem statement out of given Three!

All the best!

Problem Statement 1:- Placement Preparation Tracker

1. Context

The **Placement Preparation Tracker** is a unified platform designed to streamline and support the placement journey for final-year undergraduate students. It integrates features such as:

- Resume Building
- Job/Internship Application Tracking
- Placement Rules Enforcement
- Analytics & Notifications
- Aptitude and Coding Practice Exams

2. Users & Roles

2.1 Student

Purpose: Manage end-to-end placement preparation and applications.

Key Features:

- **Dashboard Overview:**
 - Quick Stats: Track applied jobs, upcoming tests, placement status.
 - Placement Timeline: Visualize stages like Applied → Test → Shortlisted → Interview → Offer → Joined.
 - Daily Updates: Receive notifications about deadlines, exams, and new opportunities.

- **Job Applications:**

- **Browse & Filter Jobs:** Filter jobs by domain, package, location, and eligibility.
- **Application Status Tracker:** Track progress from Applied → Test → Shortlisted → Interview → Offer → Joined.
- **Resume Selection:** Choose the version of your resume while applying.

- **Resume Builder:**

- **Templates & Auto-Fill:** Multiple templates with visual previews; auto-fill from student profile.
- **Academic Details:** Multiple entries for academic information.
- **Skills & Projects:** Track achievements, certifications, skills, and projects.
- **Career Objective Editor:** Customizable career summary.
- **Live Preview & PDF Export:** Real-time preview and export as PDF with multiple saved versions.

- **Practice & Tests:**

- **Mock Tests:** Aptitude, reasoning, coding, English, and interview practice tests.
- **Company-Specific Tests:** Auto-assigned based on job applications.
- **Score Tracking & Analytics:** Detailed test scores, performance analysis, and suggested next steps.
- **Leaderboard:** Track top scorers, achievements, and badges.

- **Notifications & Reminders:**

- **Placement Alerts:** Notifications for new jobs, deadlines, and updates.
- **Test & Interview Reminders:** Stay on top of upcoming assessments.
- **Status Updates:** Real-time alerts for application status changes.

- **Profile & Skills:**

- **Personal & Academic Information:** Maintain personal, academic, and skill data.
- **Skill Analytics & Progress:** Visualize skills and progress.

- **Public Profile:** Share your profile with recruiters.
 - **Placement History:**
 - **Company-wise Logs:** Track applications, outcomes, and placement status.
 - **Timeline View:** Visualize placement journey.
 - **Offer Management:** Accept or reject offers and record the final placement.
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2.2 Training & Placement Officer (TPO / Admin)

Role Description: Oversees the placement system, enforces rules, manages drives, and communicates with students and recruiters.

Objectives:

- Approve/manage job postings.
- Enforce eligibility & placement rules.
- Monitor and ensure that all student applications follow the placement rules and eligibility policies
- Generate reports and analytics.

Permissions & Capabilities:

- **Placement Rules Enforcement:**
 - Define eligibility criteria (CGPA, backlogs, department, attempts).
 - Restrict violations (tier downgrades, multiple offers).
- **Company & Job Management:**

- Approve/reject recruiters and job postings.
 - Manage recruitment drive schedules.
 - **Student Oversight:**
 - Track applications and statuses.
 - **Company Oversight:**
 - Track Student Applications for Specific Companies
 - **Communication:**
 - Send announcements, notices, and interview schedules.
 - Resolve conflicts (multiple offers, eligibility violations).
 - **Analytics & Reporting:**
 - Generate reports on student placement status, department placements, and company outcomes.
 - Export placement data for record-keeping.
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2.3 Company (Recruiter / HR)

Role Description: Employers posting job opportunities, evaluating candidates, and managing the offer process.

Responsibilities:

- **Job & Internship Posting:**
 - Post openings with detailed role descriptions, stipends/salaries, eligibility, and deadlines.
 - Define skills, academic, and eligibility requirements.
- **Application Management:**

- View the applicant pool and filter/sort candidates.
 - Shortlist candidates manually or automatically.
 - **Interview & Assessment:**
 - Schedule interviews, tests, and group discussions (GDs).
 - Share venue/online details for interviews.
 - Update outcomes in the system.
 - **Offer Management:**
 - Generate offers with compensation, role, and joining details.
 - Manage the offer acceptance/rejection process.
 - **Collaboration with TPO:**
 - Coordinate recruitment drives with TPO.
 - Follow campus placement policies.
 - Provide feedback on the placement process.
 - **Analytics & Reporting:**
 - Track applicant statistics, shortlisting percentages, and interview success rates.
 - Download candidate data (resumes, academic records).
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3. Placement Rules & Policies

3.1 Application Restrictions

- Once placed, students cannot apply for jobs offering lower packages.
- Upgrades allowed only twice per student (Tier-3 → Tier-2 → Tier-1).

3.2 Eligibility Criteria

- Criteria include CGPA, skills, and backlogs. TPO enforces these rules strictly.

3.3 Job Categories (By Package)

- **Tier-1 (Premium):** ₹15 LPA and above.
- **Tier-2 (Mid-Level):** ₹8 LPA – ₹14.99 LPA.
- **Tier-3 (Entry-Level):** ₹3 LPA – ₹7.99 LPA.
- **Internships:** Paid/unpaid, with or without stipend.

3.4 Upgrade Path

- **Tier-3 → Tier-2 / Tier-1 (max 2 upgrades).**
- **Tier-2 → Tier-1 (max 2 upgrades).**
- **Tier-1 → Final (no downgrade allowed).**
- **Accepting a Tier-1 final offer:** Automatically “Placed” and withdrawn from other offers.

Mockup: <https://link.excalidraw.com/l/65VNwvy7c4X/7ZU90jiUT8t>

Problem Statement 2:- RoadGuard

Problem Statement:

Develop a smart, location-aware roadside assistance platform that connects stranded vehicle owners with nearby mechanics or towing services in real time. The platform aims to reduce response time, improve communication, and enhance the safety and reliability of breakdown support, especially in remote or hazardous areas.

Several key challenges have been identified in the existing roadside assistance process:

1. Lack of Real-Time Roadside Assistance Service
 2. Difficulty in Locating Nearby Mechanics
 3. No Predictive AI Assistance to Suggest Service Providers
 4. Lack of DIY Repair Guides for Minor Issues
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Target Users:

1. Vehicle Owners and Travelers: Individuals who drive personal or rental vehicles and may face unexpected breakdowns.
2. Mechanics and Towing Service Providers (Owner of mechanic shop)
3. Mechanics or Employee of mechanic shop

Use Case Scenarios

1. Submit Request (End User)

- Login → Fill service request → Submit → View in "My Requests"

2. Assign Worker (Admin)

- Login → View pending requests → Assign mechanic → Notify both

3. Complete Task (Worker)

- View task in calendar → Mark as “Completed” → Add comments/

Authentication

- All users log in via a common login screen.
- New users must verify mobile/email OTP to logging in.
- Role-based redirection post-login.

End User Features

- **Workshop list page/Homepage:**
 - **Multiple view:** List view, card view, map view
 - **Filter for ease access:**
 - By distance (<2 km, 5km, 10km, custom radius)
 - By status
 - Sort by Near by & Most rated
- **Workshop Details Page:**
 - Show workshop details & location added by workshop owner
 - Integrated shared option
 - User can review workshop (If and only if user has completed service with that workshop)
- **Service Request Form:**
 - Vehicle info, service type, photos, location.
 - Quotation by AI or mechanic
- **Track Request Status:** View list and current state of submitted requests.
- **Map View:** View mechanic/workshop location
- **Request Details Page:**
 - Shows assigned mechanic, ETA, and status bar.

- Show live location of mechanic.

Admin Features

- **Admin Dashboard:** Displays new/unassigned requests, stats of completed request.
- **Assignment Panel:** Assign workers to requests.
- **Alerts & Notifications:** Informs admin of new request submissions.
- **History Log:** Logs of each request: status changes, timestamps, worker actions.
- **Worker Management**

Worker/Mechanic Features

- **Calendar/list View:** To show assigned tasks.
- **Request Detail Page:** View vehicle info, images, and customer contact.
- **Service Log & Comments:**
 - Mark service stages (e.g., "Started", "In Progress", "Completed").
 - Helps with future support and admin reporting.

Notification Flow

- Notification should receive via in-app notification pop-up and SMS notification

- Admin and workers receive notifications of new assignments or comments.
- End users receive alerts when
 - Request is submitted / accepted
 - Mechanic is en route / near
 - Service is marked complete

Additional features

- **Request to the multiple workshops at the same time:** First accept the first service, else reject by default

- **Rating & Review System** for mechanics and workshops
- **Admin Analytics Dashboard**
- **Downloadable Reports**
- **SMS/WhatsApp Notification Support**
- **User Request & History Tracking**
- **Whatsapp or SMS notification**
- **Payment gateway integration**
- **Support for multiple languages (English, Hindi, etc.)**

Mockup - <https://link.excalidraw.com/l/65VNwvy7c4X/5Znm6sFEkui>

Problem Statement 3:- EventHive – Where Events Come Alive

Objective

To build **EventHive**, a comprehensive event management platform where organizers can easily create, publish, and manage events with flexible ticketing and promotions, while attendees can seamlessly discover, register, pay, and receive tickets via **Email/WhatsApp** along with timely reminders and smooth check-in experiences.

Features

1. Event Creation & Publishing

- Create events with details: title, description, date, time, location, and category (workshop, concert, sports, hackathon, etc.).
 - Add **ticket types** (General, VIP, Student, Early Bird).
 - Define ticket attributes:
 - Price
 - Sale start date
 - Sale end date
 - Maximum ticket quantity
 - Save as **draft** or **publish** for public visibility.
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2. Event Discovery & Search

- Browse and search events by category, date, location, and price.
- Filters for sport type, venue type, rating, trending events, and pagination.

- “Featured/Trending” section for highlighted events.
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3. Registration & Booking

- Attendees select the event and ticket type.
 - Multiple ticket booking with per-user limits.
 - Secure attendee registration (name, email, phone, etc.).
 - Integrated **payment gateway** (UPI, cards, net banking, wallets).
 - Transaction confirmation with unique booking ID.
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4. Ticket Delivery

- Auto-generated ticket with **QR code/Barcode**.
 - Delivery via:
 - **Email** (PDF ticket with event details) OR **WhatsApp** (instant shareable ticket link).
 - Option to download ticket from user dashboard.
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5. Notifications & Reminders

- Booking confirmation via email/WhatsApp.
- Automated reminders:
 - 24 hours before the event.
 - 1 hour before the event.

- SMS/Push notification integration.
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6. Organizer Dashboard

- Manage events, ticket inventory, and bookings.
 - Real-time sales analytics and revenue tracking.
 - Attendee list export in CSV/Excel.
 - Role-based access (Admin, Event Manager, Volunteer).
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7. Attendee Dashboard

- View “My Tickets” and booking history.
 - Option to cancel booking (with refund policy).
 - Loyalty points & rewards for repeat participation.
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8. Discounts & Promotions

- Create promotional codes and coupons.
 - Early bird discounts.
 - Group booking offers (e.g., “Buy 5, Get 1 Free”).
 - Referral rewards for inviting friends.
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9. Event Check-In System

- QR/Barcode scanning for seamless entry.
 - Real-time check-in validation (prevent duplicate entries).
 - Check-in stats visible on the organizer dashboard.
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10. Analytics & Reports

- Total tickets sold, revenue earned, active attendees.
 - Demographics insights (location, ticket category).
 - Downloadable detailed reports.
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11. Advanced Features

- **Refund & Cancellation Workflow** with organizer policies.
- **Social Media Sharing** (WhatsApp, Instagram, Twitter, Facebook).
- **Live Streaming Support** for hybrid events.
- Switch to Map Mode: Show all events as pins on a map.

Mockup - <https://link.excalidraw.com/l/65VNwvy7c4X/4O6u9c8QaS0>