



SAMADHAN
CODE CREATE & INNOVATE

A 2-days National Level Hackathon on **AI in education**

**Exam Navigation &
Seat Finder**

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AREA OVERVIEW



- Students face challenges in locating their exam centers, buildings, floors, rooms, and even seats.
- Navigation inside large campuses or new exam centers is confusing.
- AI-powered solution can simplify this process with QR codes, maps, and seat finders.

IMPORTANCE OF AREA

- Brings digital transformation in traditional exam processes.



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Potential Challenges and Opportunities

- Challenge: Large number of students, multiple centers.
- Challenge: Manual handling of seat allocation.
- Opportunity: AI-enabled QR code scanning for instant details.
- Opportunity: GPS + indoor navigation for directions.

Preliminary Solution Concept




- QR code base system → scan to get center location, floor, room, and seat number.
- Map-based navigation → guides students from home to exam center.
- Seat Finder App → once inside exam hall, it shows exact bench number.

Key Features and Functionalities

- Roll number based QR scanning.
- Real-time exam center navigation.
- Interactive floor & seat maps.
- Multilingual support (English/Hindi/regional).
- Notifications & reminders for exam date, time, and center.



Target Users and Expected Use Cases

-  Students – find exam seat easily.
 -  Institutions – manage exam logistics.
 -  Parents – check student's exam center location.
- Use Cases:
 - Student scans admit card QR → gets navigation & seat info.
 - Institution uploads seating plan → auto-allocation visible to students.

Data Requirements and Privacy Considerations

- Roll number, exam details, seating plan.
- Secure storage of student data.
- Role-based access (only student & authorized staff can view details).

AI Technologies and Methods

- NLP → for chatbot queries (e.g., “Mera exam room kaunsa hai ?”).
- Computer Vision → QR code scanning.
- Geo-mapping + Indoor positioning → navigation.
- Machine Learning → predicting traffic/delay & suggesting route.

Implementation Approach

- Phase 1: Prototype – QR scanner + seat finder.
- Phase 2: Integrate with Google Maps / campus indoor maps.
- Phase 3: AI chatbot for instant queries.
- Phase 4: Full deployment with exam authorities.

Evaluation Metrics

- % of students reaching exam center on time.
- Accuracy of seat allocation.
- Student satisfaction rating.
- Reduced manual query load on institutions.