

A 2-days National Level Hackathon on Alin education

Exam Navigation & Seat Finder

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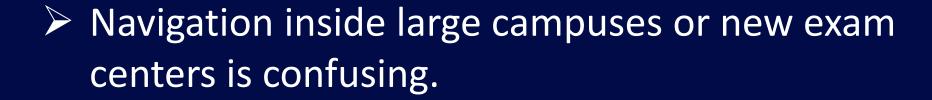
Bansal Group Of Institute Kokta Bypass, Bhopal.





#### **AREA OVERVIEW**

Students face challenges in locating their exam centers, buildings, floors, rooms, and even seats.



➤ Al-powered solution can simplify this process with QR codes, maps, and seat finders

#### **IMPORTANCE OF AREA**

> Brings digital transformation in traditional exam processes.





# Potential Challenges and Opportunities



- > Challenge: Large number of students, multiple centers.
- > Challenge: Manual handling of seat allocation.
- > Opportunity: Al-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:
- $\triangleright$  Student scans admit card QR  $\rightarrow$  gets navigation & seat info.
- $\succ$  Institution uploads seating plan  $\rightarrow$  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).





## Al Technologies and Methods



- $\rightarrow$  NLP  $\rightarrow$  for chatbot queries (e.g., "Mera exam room kaunsa hai?").
- ➤ 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: Al 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.

