

## Ideation Phase

### Define the Problem Statements

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Team ID	SWTID1742640402
Project Name	MyRide
Maximum Marks	2 Marks

#### Problem Statement

In today's fast-paced world, urban transportation remains a critical need, yet traditional and digital cab-hailing services face significant challenges:

- **Inefficient ride matching:** Users often experience long wait times due to poor driver allocation algorithms, especially during peak hours.
- **Unreliable real-time tracking:** GPS delays and inaccurate location updates lead to frustration and missed pickups.
- **Limited payment options:** Cashless transactions frequently fail due to technical glitches or poor network connectivity.
- **Lack of transparency:** Hidden surge pricing and unclear fare calculations erode user trust.
- **Driver dissatisfaction:** Low earnings and unfair ride distribution cause high driver turnover, reducing service reliability.
- **Mobile accessibility issues:** Many apps perform poorly on low-end devices or slow internet connections, excluding a large user base.

These pain points result in a subpar experience for both passengers and drivers, creating a demand for a more efficient, transparent, and inclusive cab booking solution.

Our project addresses these gaps by developing a MERN-based cab booking application that prioritizes:

- **Smart ride-matching:** AI-driven algorithms for faster driver allocation.
- **Real-time accuracy:** Precise live tracking with WebSocket updates.
- **Offline-friendly features:** Cache critical trip data for low-network areas.
- **Fair pricing:** Upfront fare estimates with no hidden costs.
- **Driver empowerment:** Equitable ride distribution and earnings tracking.
- **Lightweight mobile UI:** Optimized for low-end smartphones and slow networks.