**Ideation Phase**

**Define the Problem Statements**

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| Date | 14 April 2025 |
| 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.