# Milestone 3: Uber Priority Ride System

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## 1. Goals & Needfinding

### → Summarized Project Goal

The goal of this project is to reduce ride cancellations for *critical destinations* such as hospitals, airports, and railway stations. We propose a *Priority Ride* feature in the Uber app that allows users to mark such trips as priority. This feature aims to improve ride reliability and reduce last-minute cancellations by informing and incentivizing drivers handling critical destinations.

### → Needfinding Summary

- Frequent cancellations for urgent rides (45.5% reported such experiences).

- Consequences included missed flights, train, and disrupted medical visits.

- While we do not have direct quotes about pricing preferences, the severity of the situations suggests that some users may be open to prioritizing reliability, even at additional cost. This is a design hypothesis we will explore during user evaluation.

- No feature to distinguish time-sensitive rides from casual ones, which leads to equal treatment of critical and non-critical rides.

### → Feature Needed

- Detect critical destinations automatically (keyword matching).

- Allow users to opt-in for *Priority Ride* (by paying extra).

- Visual tag and enhanced pay for drivers for priority rides.

### → Constraints

- Drivers cannot cancel a priority ride after accepting it (except for emergencies).

- Users will incur a penalty if they cancel a booked priority ride.

- Emergency cancellation must include a reason (driver-side).

- Critical destination detection is based on fixed keyword matching; if a destination does not contain a predefined keyword (e.g., "hospital", "airport"), the Priority Ride option will not appear.

## 2. Revisions

- User-side prototype with features: destination input, cost display, priority pop-up.

- Driver-side prototype with features: visual tags and increased pay for priority ride.

- We upgraded our prototypes from mid-fidelity to high-fidelity to better reflect real user interactions and visual design.

- While backend integration is not feasible due to the limitations of accessing Uber's internal systems and live data, our focus remains on creating interactive and realistic front-end prototypes for both users and drivers to simulate the experience effectively.

## 3. Translating Requirements to Prototype

| Requirement | Prototype Feature |
|---|---|
| Detect critical destinations | Predictive search field that recognizes keywords like "hospital," "airport," etc. |
| Offer Priority Booking | Giving users the option to switch from a regular ride to a Priority Ride |
| Driver awareness | Tag showing "Priority Ride" in driver interface |
| Prevent cancellation | Unresponsive "Cancel Ride" button (grayed out); only "Transfer Ride due to emergency" available |

# 4. High-Fidelity Prototype

## → Design Decisions Linked to Needs

- Predictive search helps identify critical destinations early, streamlining the user flow and enabling timely upgrade prompts.

- A popup offering the Priority Ride option appears after selecting a critical destination, giving users control while encouraging reliable service for urgent trips.

- Priority Ride tags are shown to drivers to signal urgency and incentivize ride acceptance through increased fare.

- The cancel button is disabled for drivers on priority rides, with only an emergency reporting option available — directly addressing the user's frustration with last-minute cancellations.

## → User Flows

Demo Video : [Video Link](Video Link)

## → Progress Timeline

- **User Interface:** Prototype is completed and is integrated with all features. Includes all key screens such as destination input, priority ride selection and display of the updated fare.

- **Driver Interface:** Currently in development. Core components like the priority ride tag, disabled cancel button, and emergency handling screen will be implemented.

- **User Evaluation:** Planning phase is complete. Participant recruitment and interface testing will begin shortly. Evaluation results will be analyzed and will be used to refine the prototype by the final milestone.

## → Evaluation Plan

### - Evaluation Questions:

- Is the priority option clear and useful?

- Are drivers aware and motivated to accept priority rides?

- Are users willing to pay extra for a guaranteed, reliable ride for their critical destinations?

- Are users confident that the system prevents cancellations?

- Is the interface intuitive and easy to navigate for both users and drivers?

- Does the visual tagging of Priority Rides help drivers identify and prioritize them effectively?

- Do users feel a higher sense of trust and reliability when using the Priority Ride option?

## - Methods:

- **For Users–Interface**

    - **Usability tests:** Conducted with a group to observe how users interact with the Priority Ride feature. Participants will complete key tasks while thinking aloud to help identify usability issues and overall clarity.
    - **User Surveys:** Since wide-scale testing isn't possible, surveys will help us understand if users are willing to pay extra for Priority Rides and if they find the option valuable. We'll also ask why some choose not to use it.

- **For Driver–Interface**

    - **User Surveys:** Since we're simulating the driver experience, surveys will be used to capture driver reactions to features like the Priority tag, increased fare, and the disabled cancel option. This will help evaluate motivation, clarity, and perceived fairness.

## - Tasks:

- **For Users–Interface**

    - Book a Priority Ride to a critical destination such as a hospital, airport, or railway station.
    - Decide whether to choose Priority or Regular Ride after seeing the prompt and fare difference.
    - Interact with the destination input to test if critical destinations are auto-detected.
    - Cancel a ride after booking and observe the penalty or restrictions associated with it.

- **For Drivers–Interface**

    - Accept or reject a priority ride.
    - Handle emergency scenario by using the "Report Emergency" option.
    - Review ride details and confirm commitment, noting any restrictions like the disabled cancel button.

## - Participants :

- Approx 40 participants for User-interface (Mostly Students).

- Approx 10 participants for Driver-interface .

# 5. Technical Implementation

→ **Deployed Interface Link :** <span style="color:blue">Interface Link</span>

→ **Work Status**

 **- User-Side Screens (Implemented):**

- Home screen with destination input

- Priority Ride confirmation screen (if destination is a priority)

- Fare details and ride confirmation.

 **- Driver-Side Screens (In Progress):**

- Dashboard with "Priority Ride" tag for priority rides.

- Disabled cancel button (only emergency report enabled) for priority rides.

- Ride commitment confirmation screen

→ **Screenshots & Code Link**

Screenshots Link : <span style="color:blue">Drive Link</span>

GitHub Link for Code : <span style="color:blue">GitHub Link</span>