# Pothole Detection System: Interactive Navigation Scenario

**Group 16 - Neel Patel, Revathi Dhotre, Rimsha Rizvi, Shehriar Burney**

The Pothole Detection System (PDS) isn't just about detecting potholes; it's about creating an interactive and rewarding experience for its users. This scenario delves into how PDS has evolved to offer users a seamless journey, keeping them informed, engaged, and appreciated for their contributions. Refer to PDS_Scenario_Diagram (Figure 1) below for more details.

## Scenario: "Navigating the City with PDS"

### Login and Destination Setup

Jamie, who recently moved to a new city, launches the PDS app. He's met with the login screen where he enters his credentials and taps the "LOGIN" button. Upon validation, the app transitions seamlessly to the main dashboard. Here, Jamie spots an "Enter Destination" input field. Eager to start his journey, he types in his desired location.

### Weather Overview and Choosing the Route

When he clicks the "CONFIRM" button, a little weather widget on top highlights current conditions to help him make judgments about his course of action and what to wear for the day. This visual update is swiftly accompanied by the map below, which displays up to three color-coded suggestive routes. Jamie reviews them:

- Red for the fastest route
- Green for the route with the fewest potholes
- Blue as an alternative pathway

Curious about the blue path, Jamie taps on it and presses the "SELECT ROUTE" button to finalize his choice.

### Detour and System Adaptability

Jamie chooses to halt unexpectedly midway through his journey after being drawn in by the smells of a bakery. As he turns off his chosen path, a notification pops up, reading "Route deviation detected. Recalculating..." Moments later, an updated blue route appears, guiding Jamie back on course.

### Engagement: The PDS Leaderboard

When Jamie arrives at his destination, he notices a button that states "LEADERBOARD". He taps it out of curiosity. The top PDS community contributors are now visible on the screen. Jamie

discovers his name and ranking as evidence of his most recent pothole updates. He presses the "BACK TO HOME" button, already thinking about his next trip with PDS.

In this thorough journey, PDS exhibits its dedication to a user-friendly experience by integrating tangible user interfaces, real-time adaptability, and community engagement features to turn every drive into a well-informed and engaging experience.
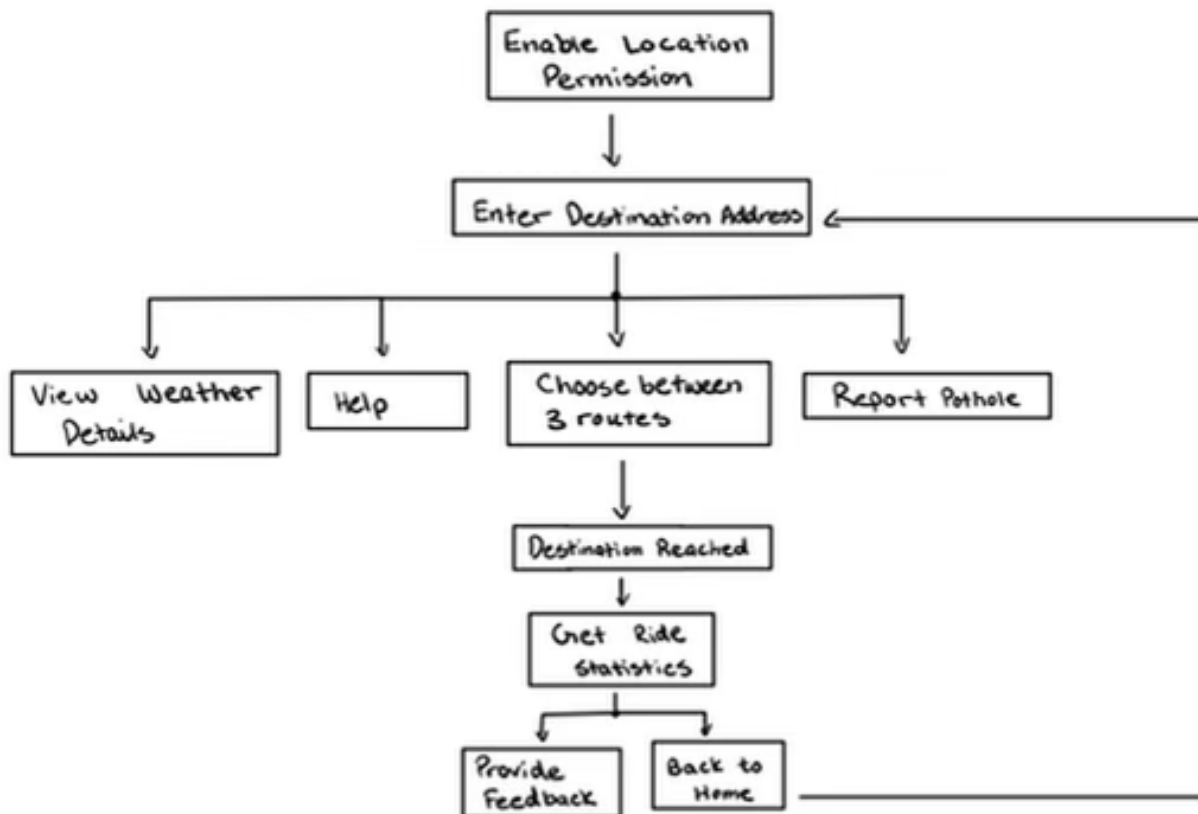


Figure 1 - PDS_Scenario_Diagram: A schematic representation highlighting the sequence of user interactions and features within the PDS journey.