Alpha Presentation
Gate Hazard Geo-Mapping

The Capstone Experience
Team United Airlines Airport Operations

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Project Overview

• United Airlines is a leading American airline headquartered in Chicago, Illinois.

• United Airlines Safety & Compliance staff record data on hazards faced at each airport gate.

• Our software unifies the hazard-data recording process, visualization, and allows geo-mapping of the entries.

• This is accomplished through an Android and iOS mobile app, as well as a website.
System Architecture
Main Map View
Hazard List View

- **FWD pit access**
  - Last Revised: 10-14-2021
  - Map: 1
  - Risk Rank: 3
  - Affected Departments: CG, SOC, MT
  - Maintenance vehicles can be in the way during 737 arrivals. Advise SOC if vehicles need to be moved to access FWD pit or NLG.

- **Superbugs blocked**
  - Last Revised: 10-12-2021
  - Map: 2
  - Risk Rank: 3
  - Affected Departments: MT
  - Golf Carts occasionally block Superbugs from accessing space under the terminal. Call the SOC to have them removed.

- **Fire lane**
  - Last Revised: 10-14-2021
  - Map: 3
  - Risk Rank: 2
  - Keep access to the fire lane/no parking area clear at all times.
Edit & History Pages
Website – Add Hazard Page
What’s left to do?

• Custom pins on iOS
• CSV upload error handling
• CSV upload change log implementation
• Printing tables on website
• Login on mobile and website
• Mitigate against any SQL injections
Questions?