

Google

Cache Me If You Can

Meet the Team



Jenny Quan

Web Development



Lucas Rodrigues

Web Development



Jessica Kimoden

UX



David Chan

UX



Kyle Jensen

Data Science



Sven Ostertag

Data Science

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Research

48% 

*Among intersection crashes, 48 percent
involved a wheelchair user in a crosswalk.*

Scope of our problem

Americans with Disabilities by the numbers

- 61 million of all adults in the U.S live with a disability or nearly 26%
- Of those 61 million, 13.7% suffer from serious difficulty with mobility

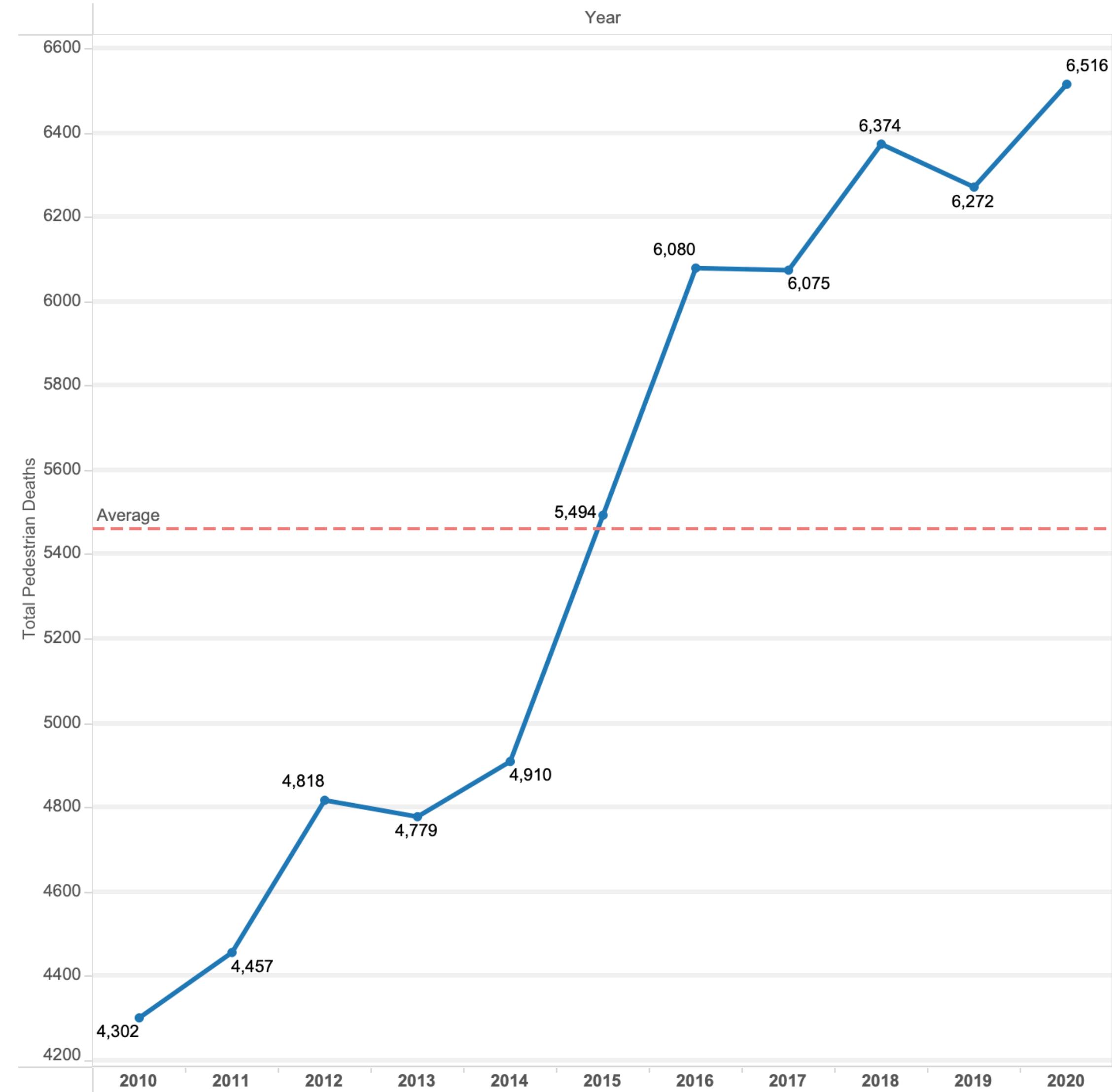


Pedestrian Fatalities

As we can see from the adjacent graph, there has been a clear increase in pedestrian deaths over the past 10 years.

There is a lack of data showing how many of these accidents or fatalities involved wheelchairs, since how of the data regarding individual characteristics often goes untagged.

U.S. Pedistrian Deaths Per Year



Exploration



Mike Jones

Age	57 years old
Location	Vancouver
Position	Call centre agent
Income	Makes 40K a year

Adaptive

Anxious

Self-aware

“ I don't go out anymore because everytime I leave the home I risk injuring myself simply by moving around. ”

Goals & Motivations

- Looking for alternative ways to travel to minimize risk of injury

Frustrations

- Avoids traveling into the city during rush hours when streets are overcrowded

Behaviors

- Feels unsafe when crossing the road

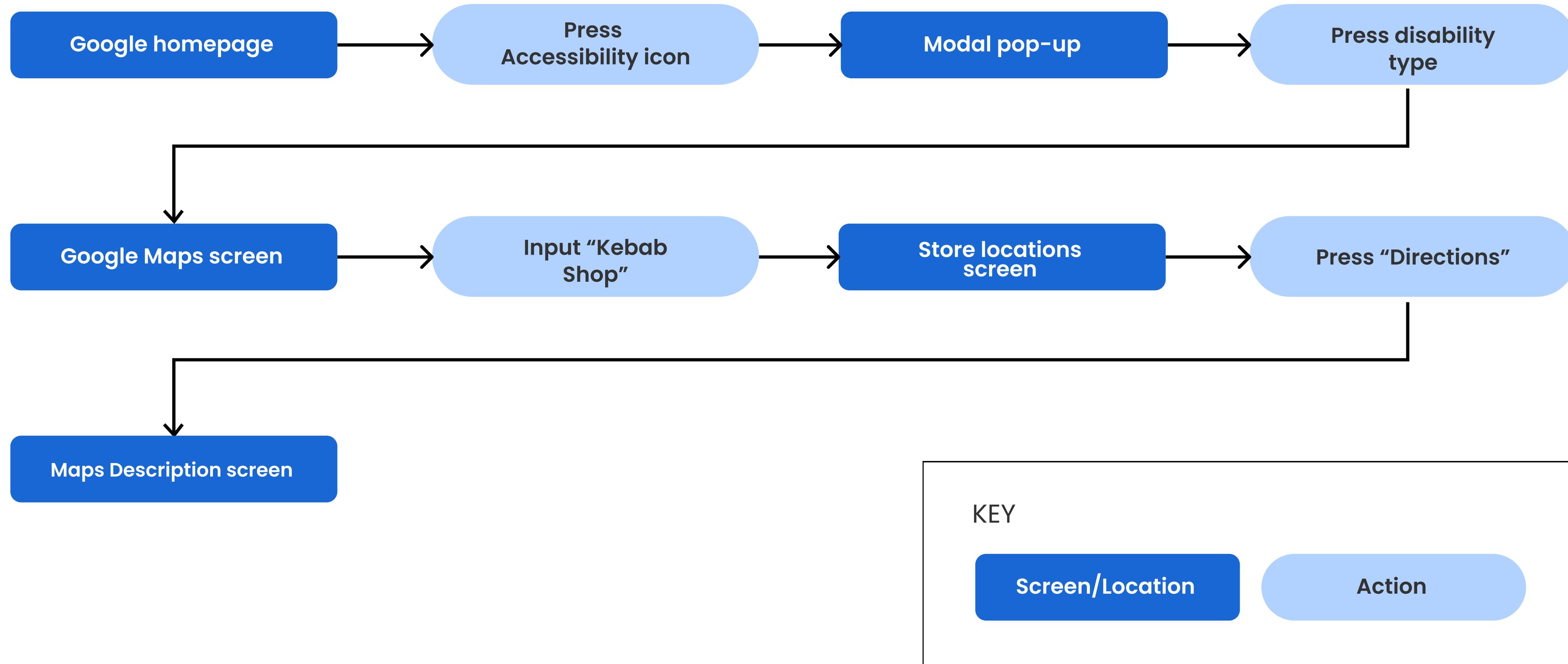
How might we...?

*How might we provide road accessibility to disabled individuals in wheelchairs *in order to* reduce their risk of injury on the road?*

Problem Space

Wheelchair users are generally exposed to road infrastructure which were not built with them in mind, and face challenges in traversal that others do not. This makes them more vulnerable to injury and death when navigating.

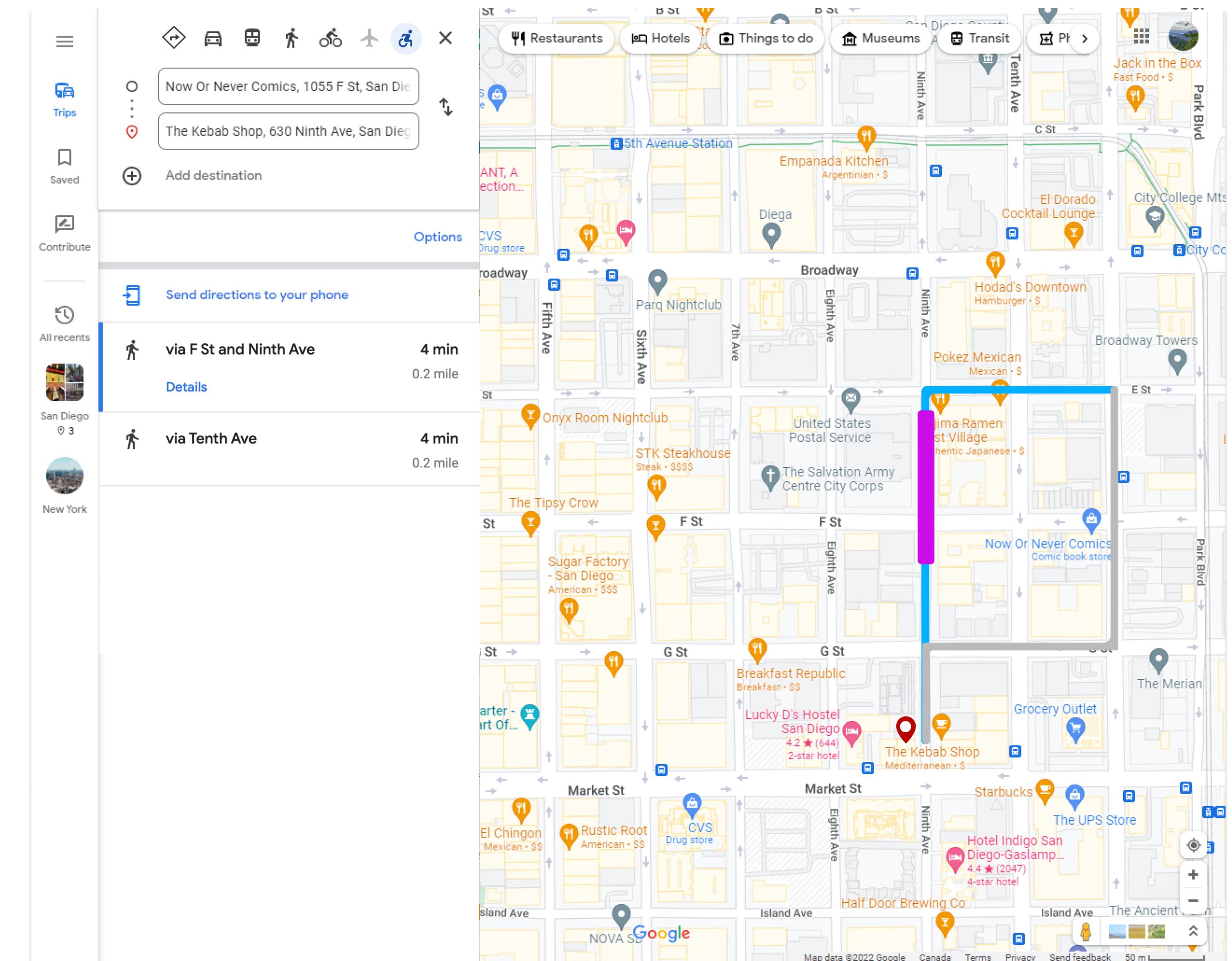
User Task Flow



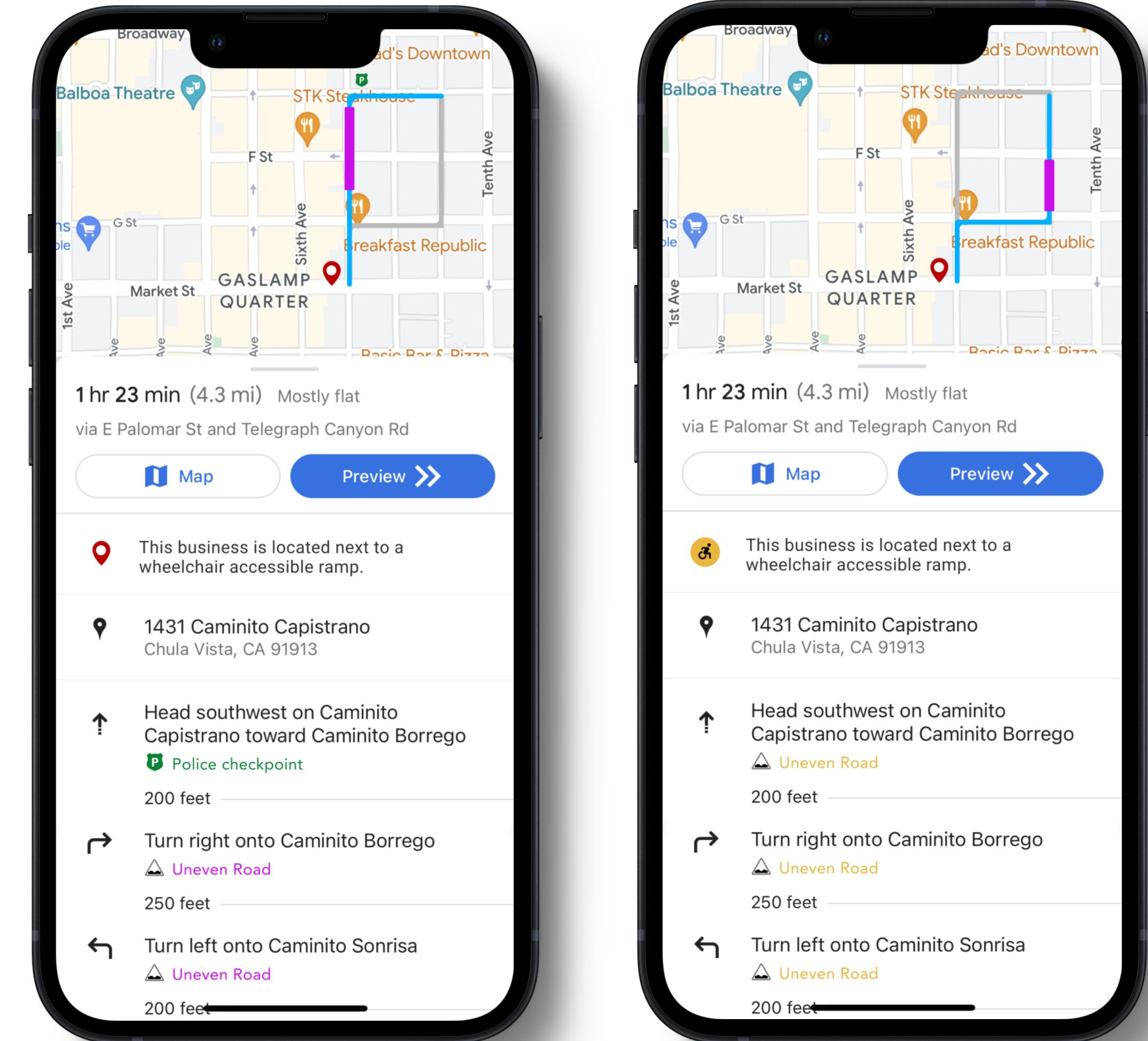
Solution

Final Desktop Prototype

[Link here.](#)

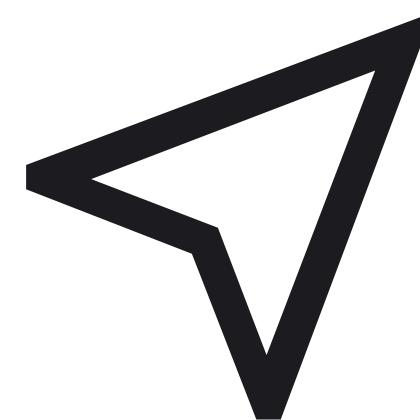


Mobile Version

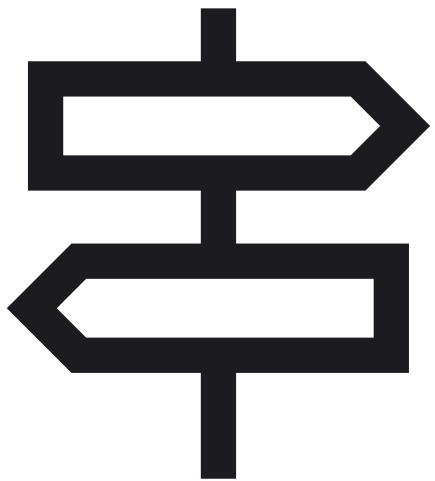


How does data facilitate our solution?

Data from various sources can be combined to generate safety scores over locations that get taken into account in the Google Maps pathing algorithm.



Local Map Data &
Google Street View



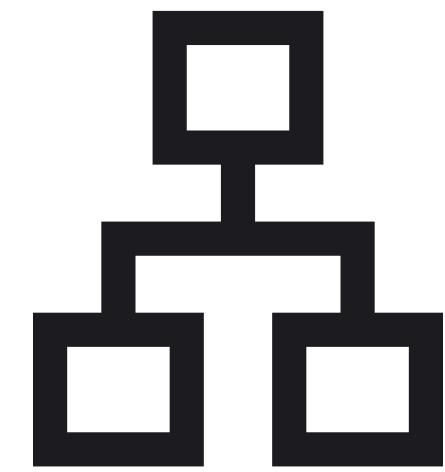
Google Location Services



Other Data

Conclusion

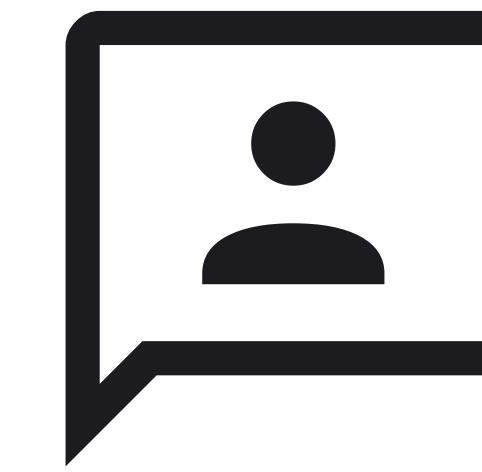
Future Applications



Data-informed Iteration



**Other parties of
Interest**



User Disability Tags

Key Learnings

- The safety of wheelchair users deserves more attention
- There is much room for improvement in how we assist in and respect the challenges of the disabled.



Thank You