**Team Q**

**Member: Queeny**

**Overview of the problem**

Public transportation is a critical service in urban environments, offering mobility to individuals without access to private vehicles. However, people with disabilities often face significant barriers when using buses, trains or subway systems. These problems include lack of real time accessibility information, poor signage or inaccessible apps.

**User Characteristics**

* People with physical disabilities (wheelchair users, people with mobility impairments)
* Visually impaired riders
* Individual with cognitive disabilities

Justification: interviews and direct observation were chosen to understand lived experience.

**Analysis**

**Task Characteristics**

* Plan a trip using step free pr accessible stations
* Boarding and exiting buses or train
* Reacting to unexpected disruptions

**Task environment**

* **Physical Environment**: Noise, and variable lighting
* **Technological Environment:** Apps, digital signs, and voice system

**Design implication:** The interface must work offline, support multi modal output

**Structured Analysis**

* Open app
* Enter origin destination
* Select accessible route filter
* View route options and accessibility alerts
* Confirm and set notifications
* Travel
* Use app to find ramp or elevator
* Board transit
* Exit and confirm arrival

**Evaluation of Existing System**

* Local transit spp
* Google maps accessibility features
* In station signage and kiosk interfaces

**Strengths**

* Static accessibility filters in route planning
* Some audio announcements

**Weaknesses**

* Real time updates missing or delayed
* Screen reader compatibility poor on older devices
* Inconsistent iconography
* Users must know where to look for accessibility features

**Social and technical systems**

* Riders with disabilities often rely on informal support networks for help navigating
* Stigma can discourage questions or complaints
* Transit agencies
* Public app often pull from GTFS feeds
* Accessibility hardware

Design implication: The system must interface with existing transit APIs, and allow crowd sourced updates from user