# Lightning Pitch

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# Safest Route

**PROBLEM:** It is very common to see many pedestrians amongst cities like San Francisco, Berkeley, Oakland, etc. Although there are many people walking around, that does not mean that it is necessarily safe, especially the emptier the streets get throughout the day. By calculating the safest route to your destination, while still keeping its efficiency, this could help everyday pedestrians get home with less probability of something dangerous happening to them.

**DATA:** Different types of data will have to be combined to be able to acquire multiple aspects that define "safety" or "danger" such as crime data(frequency of crimes per area), businesses around & their hours of operation, sex offenders near your area, time of day, etc. A lot of this data is provided in csv files by government websites such as catalog.data.gov and fbi.gov. The flaw with this data is that it requires a lot of cleaning.

**HYPOTHESIS:** By combining as many factors as possible that compose "safety" or "danger" then we will be able to calculate the safest route to the destination by avoiding those unsafe areas.

# Sentiment Analysis + Social Media to support Mental Health Awareness

**PROBLEM:** Many times individual's social media posts/trends are indicators of their mental health state. Even with that as a resource there are many times when these posts/trends are ignored and result in mental health related tragedies. Being able to keep track of people's "unusual" or unsettling social media posts could be helpful to mental health providers, teachers, family members, etc.

**DATA:** This differs depending on which social media platform you'd like to focus on, but for this project Twitter will be used. There is a Twitter Streaming API that gives access to the Twitter data.

**HYPOTHESIS:** Keeping track of people's Twitter trends in conjunction with sentiment analysis could be used as a key mental health awareness resource.

# What AirBnB do I pick?

**PROBLEM:** AirBnB prices + fees are dependent on the host themselves. If each host has a different approach to the way they price, how can the guest truly know if they got the best deal? By looking at various factors such as rating, location, amenities, elevator, size, host reviews, etc. this will help decide if the AirBnB selection is worth the price.

**DATA:** I could webscrape from AirBnB, but there is also www.airdna.co which provides limited AirBnb data.

**HYPOTHESIS:** The different factors listed above will help determine which AirBnB is the best choice for the guest.