# CAPSTONE CHECK-IN #1

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# COVID and Mental Health

- Problem statement
  - As COVID is impacting our everyday lives and shaping our present and future the way we did not project. We as people are struggling with keeping up with daily decisions and tasks since we are experiencing something that we did not expect to happen - loneliness, feeling of isolation, stress of not being able to be alone when needed, instability of finances, and etc. Because of this, I would like to find out what has been going on with our mental health ever since the pandemic and try to search for a mitigation plan.
- Audience
  - My audience will be government officials, social workers, and anyone who is interested in this topic to bring awareness.

# COVID and Mental Health

- Success metric
  - The goal of this is to reduce the stigma around mental health and inform people with its symptoms and have them more cognizant of our neighbors and minority population suffering from mental illness. I will be using time series analysis and modeling method will be decided as we learn more about time series.
- Data source
  - My data source will be reddit - I will get the information using API and praw from multiple subreddits.
  - Subreddits: COVID19_support, BPD, bipolar, depression, Anxiety, healthanxiety, SuicideWatch, lonely
- Potential challenges or obstacles
  - Amount of time to get enough usable data - will need to start early
  - My computer's processing speed - will have to adjust the models to accommodate this

# Air Quality

- Problem statement
  - We have been experiencing serious air quality issues as of today. Especially in Utah, being surrounded by mountains, days with heavy inversion often create environment where people can hardly breathe.
- Audience
  - Legislature, public health officials, earth scientists, and anyone who is interested in this subject matter.
- Success metric
  - The goal is to provide the public with some insights about how air quality has been changing through historic trends, and to spotlight where we are headed. Again, I will be using time series analysis and prediction model will be updated as we go over time series.

# Air Quality

- Data source
  - epa.gov
  - Airnow.gov
  - National Centers for Environmental Information
- Potential challenges or obstacles
  - Data cleaning: Since the data is coming from multiple sources, cleaning the data will take majority of time to provide accurate analysis.
  - Scientific terms - google is my best friend

# Car Depreciation

- Problem statement
  - It is often a concern whether we are getting a good deal when we are shopping for a used car, and sometimes we do not have a very clear answer because some car makes and models are not available. Also we do not know how the car was priced.
- Audience
  - Everyday consumers like us who is in need of a car, and car salesmen.
- Success metric
  - The purpose of this project would be to understand how cars are depreciated,  what impacts car prices strongly, and make a prediction of their prices. I will be using regression, most likely, to predict the car prices.

# Car Depreciation

- Data source
  - My data source will be cars.com and kbb.com - I will get the information using webscraping.
- Potential challenges or obstacles
  - Amount of time to get enough usable data - will need to start early
  - Concepts, especially time series and trends,  that I am not yet familiar with - the concepts on week 8,  9, and 10

# Thanks!