**Idea 1 - Food Safety**

Food service establishments are run by franchisees, corporate offices, or sole owners.These establishments have playbooks containing cleaning and hygiene procedures for operational efficiency and food safety. Due to the decentralized operations, turnover of staff and other factors, establishments do not perform equally across board, especially when it comes to procedures related to hygiene and food safety. This project will use department of health inspection reports to

* Explore if establishments cluster together based on features such as violation, risk category, and other features.
* Predict health inspection score based on history of health inspection violations
* Benchmark establishment health inspection score against other establishments in the same risk category

Dataset

* Either Durham County inspection sheet ([Durham County Food Inspections (kaggle.com)](https://www.kaggle.com/datasets/thedevastator/durham-county-food-inspections/?select=food-health-inspections_2.csv)) OR King Country Food Establishment Inspection Data ([Food Establishment Inspection Data | King County | Open Data](https://data.kingcounty.gov/Health-Wellness/Food-Establishment-Inspection-Data/f29f-zza5)) Restaurant inspections: [Restaurant Inspections - Catalog (data.gov)](https://catalog.data.gov/dataset/restaurant-inspections)

Both datasets include columns such as unique store ID, health inspection score, inspector comments, travel time to inspection, water temperature, inspection date, type of establishment, violation record ID, violation type, violation description, address, risk category, time of inspection, zip code, address, longitude and latitude of establishment, etc.

**Idea 2 - Mobility**

Explore the relationship between walkability of an area and economic impacts.

Investigate

* what aspects of walkability of an area are the main drivers of impact on the economy and of that area.
* If walkability increases the likelihood of people not staying at home in an area
* If certain times during the year see increased travel and trips
* Creating a model that predicts increase in GDP based on increase in walkability/mobility in an area.

Dataset

* Trips by Distance - [Trips by Distance - Catalog (data.gov)](https://catalog.data.gov/dataset/trips-by-distance)

Data summarizes how many people are staying at home or traveling at national, state, and country level. Also contains information about the number of trips taken at the county level. Includes variables such as population staying at home, population not staying at home, number of trips taken, week and month of trip.

* Smart Location Database & Rankings for Walkability Calculations in the country - <https://catalog.data.gov/dataset/walkability-index1>

Describes how walkable areas of the country are down to the census block group level. Includes variables ranking census block groups based on employment types and occupied housing, mix of employment types, street intersection density and proportion of workers in the block group who carpool.

* US Economic Profile by County - <https://www.kaggle.com/datasets/davidbroberts/us-economic-profile-by-county> OR <https://www.kaggle.com/datasets/thedevastator/the-u-s-counties-with-the-highest-gdp>

Has US Economic data by state and country from the Bureau of Economic ANalysis, Includes variables such as personal income, unemployment insurance, net earnings, county gdp and county name.

**Idea 3 - Homelessness**

Explore homelessness in the United states and compare response services in the state with the highest and lowest rates of homelessness in the population.

Dataset

* Point-in-Time Estimate of Homelessness in the US - <https://www.splitgraph.com/michigan-gov/point-in-time-estimates-of-homelessness-in-the-us-tgxm-urpt/-/overview>
* Example of data set showing services provided in a state: People Receiving Homeless Response Services by Age, Race, Ethnicity, and Gender in California

<https://catalog.data.gov/dataset/people-receiving-homeless-response-services-by-age-race-ethnicity-and-gender-b667d>