Eric Huynh   
UCB Data Analytics Boot Camp   
July 11, 2023

Project 1

Topic

Enhancing Relevance and Usage of Public Transportation in the United States: Strategies for Improving Accessibility, Efficiency, and Ridership

Question

1. How does public transportation ridership vary across different cities in the United States?
2. What are the peak hours or days for public transportation usage?
3. How does public transportation availability and accessibility correlate with population density or demographic factors?
4. What are the most common modes of transportation used for daily commuting in different cities?
5. Are there any noticeable seasonal fluctuations in public transportation ridership?

Dataset

* National Transit Database (NTD)
* Bureau of Transportation Statistics (BTS)
* Census Transportation Planning Products (CTPP)
* And more….

Project Description

The goal of this project is to explore ways to enhance the relevance and usage of public transportation in the United States. The project will involve conducting an in-depth analysis of existing public transportation systems, identifying potential challenges, and proposing strategies to address them. The focus will be on improving accessibility, efficiency, and ridership to make public transportation a more attractive and viable option for commuters and the general public.

The project will involve data collection, cleaning, and analysis using various datasets related to public transportation. These datasets may include information on ridership, service levels, routes, demographics, infrastructure, and other relevant factors. Data visualization techniques will be employed to effectively communicate insights and patterns derived from the analysis.

Team Members

1. Eric Huynh

Resources:

<https://www.youtube.com/watch?v=LW-M_UC0VTE>

So its hard to get some sort of data base going and like extract information from it so I think the best way is to get an api from the us census bureau to explain demographic behaviors, income, and population to the general information given about public transportation.

US Census Population Estimate API (2021)

API call: <https://api.census.gov/data/2021/pep/population>

API key: b4e8cddedd39b4cba2d10cd09ac941213d4f6680

Analysis pub(2021)

1. ~~Population~~
   1. census.gov (API)
      1. <https://www.census.gov/data/developers/data-sets/popest-popproj/popest.html>
2. ~~Population Density~~
   1. census.gov (API)
      1. <https://www.census.gov/data/developers/data-sets/popest-popproj/popest.html>
3. ~~Gross Domestic Production~~
   1. 2023 World Population Review (CSV 2022)
      1. <https://worldpopulationreview.com/state-rankings/gdp-by-state>
4. ~~Employment Rate~~
   1. Iowa Community Indicators Program, 175 Heady Hall (CSV)
      1. <https://www.icip.iastate.edu/tables/employment/unemployment-states>
5. Environmental AQI
6. ~~Education establishments~~
   1. 2023 World Population Review (CSV) edu1
      1. <https://worldpopulationreview.com/state-rankings/educational-attainment-by-state>
   2. data.census.gov (CSV) edu2
      1. <https://data.census.gov/table?tid=ACSST5Y2020.S1501&g=010XX00US$0400000>
7. Tourism
8. Car Ownership
   1. (CSV 2019)