05 Module Readme

PyBer\_Challenge

Project Overview:

Analysis is needed for PyBer, a $2.3 billion ride-sharing app company of all rideshare data from January to May 2019. Data visualizations are needed to provide insights to the CEO, V. Isualize.

The CEO has requested a summary table of key metrics by city type, and a multiple line graph that shows the average fare for each week by each city type.

Resources:

Data Source: city\_data.csv and ride\_data.csv

Software: Python: 3.7, Jupyter Notebook, Pandas, Matplotlib, and Numpy

Summary:

1. The created/completed summary table includes:

* Total Rides
* Total Drivers
* Total Fares
* Average Fare per Ride
* Average Fare per Driver

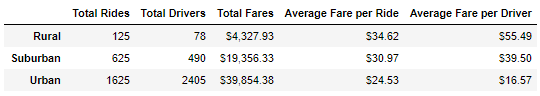
Summary data observations:

Rural: 125 total rides, 78 total drivers, $4,327.93 total fares, $34.62 average fare, $55.49 average fare per driver

Suburban: 625 total rides,490 total drivers, $19,356.33 total fares, $30.97 average fare, $39.50 average fare per driver

Urban: 1625 total rides, 2405 total drivers, $39,854.38 total fares, $24.53 average fare, $16.57 average fare per driver

Rural rides are fewer, but they tend to generate greater revenue per ride than suburban and urban cities. One may conclude that rides in lower populated cities are longer or travel further. Also, drivers are in greater demand in lower populated areas and tend to make more than drivers in higher populated areas.



1. The created/completed multiple-line plot provides the weekly sum-total of fares for each city type for each week January through April 2019.

Summary data observations:

Rural: Average roughly $250 in fare revenue per week, max per week revenue $500, and minimum per week revenue $100

Suburban: Average roughly $1100 in fare revenue per week, max per week revenue $1400, and minimum per week revenue $800

Urban: Average roughly $2300 in fare revenue per week, max per week revenue $2600, and minimum per week revenue $1800

All three city types have consistent revenue and ridership. Urban cities have higher volume of rides and generate the most revenue, and there are many available drivers. Urban riders are going for shorter distances and likely value convenience and accessibility in the PyBer service. Suburban cities have less volume of rides and total revenue relative to urban cities, and more relative to rural. Rural cities have lower rides counts, but they generate the greatest revenue per ride, and their drivers make the most. Rural riders are likely taking longer trips, and may use the service for entirely different applications than the urban riders, such as trips from city to city versus small trips within their city limits.

