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Homework: pyUBER

Part II: You must include a written description of three observable trends based on the data.

After performing the appropriate steps to accurately merge and depict the pyUBER data, we have evidence the following conclusions can be supported using the data from both a tabular format and by plotting the data:

1. The URBAN number of rides appears to be proportionally greater (nearing 70%) of the total number of rides per location (Urban, Suburban, and Rural).
   1. Although, URBAN areas may have alternative transportation opportunities such as: bus, train, subway, personal car, taxi, biking, and walking. The variety of methods for alternative transportation suggests the pyUBER data could increase if any option is unavailable or discontinued.
   2. The combined Suburban and Rural areas are slightly less than 1/3 of the total number of rides. The data does not provide any insight as to age group using pyUBER nor the methods for alternative transportation.

Additionally, the URBAN number of drivers is greater when compared to the SUBURBAN and RURAL areas indicating a large number of drivers is needed in URBAN areas to satisfy the demand.

Note: There is no indication why the high volume of rides and the low price of fares has a relationship to # of miles driven OR the day of week|hour of day. More data is needed for this comparison.

1. Looking at the data on DRIVERS: It is clear the RURAL areas have the fewest number of DRIVERS as compared to the SUBURBAN and URBAN cities. RURAL areas also have the least number of riders.

However, the RURAL rides although fewer in number are HIGH in fare price when compared to the high volume and lower fares in the URBAN and SUBURAN areas. There is no indication the fare price has a relationship the number of miles driven.

1. SUBURBAN areas have the most consistency in the number of RIDES, FARES, and DRIVERS indicating there may be a sufficient number of DRIVERS for the number of RIDES and FARES.

It would be interesting to visualize the number of miles and date|time to see if there is a strong correlation.

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|  | URBAN | SUBURBAN | RURAL |
| Drivers | 67.07 % | 25.07 % | 7.86 % |
| Total Rides | 68.42 % | 26.32 % | 5.26 % |
| Total Fares | 62.73 % | 30.46 % | 6.81 % |