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Assignment: Week 8 – Question and Answer
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Questions:

1. Can you factor in weather conditions and holidays also while drawing the trend line on the number of trips?
   Yes, weather can be brought in but time did not allow any additional features. Holidays and day of week were brought in to the dataset. There is some analysis showing trip and bike information and how it varies due to the day of week. In the model holidays were used to help with outgoing number of bikes prediction.
2. Can this model be used for other bike sharing networks in other cities?
   Yes, this can be use for other bike sharing networks as long as the data was similar. There would probably be a need to do some data preparation.
3. Who is using the bike sharing most? Is it casual users or members?
   That is the big insight. It is more walkup users than monthly passholders or annual passholders. The walkup makes up Metro Bike shares 49.58% of the usage.
4. When are bike sharing trips occurring the most? What season or what month of the year?
   During the warmer month you have more trips occurring. There is a spike in September but I am not 100% sure if that is accurate or an anomaly.
5. How are the trips split across the stations in the city? Are they evenly spread out or concentrated around one station the most?
   The 5 busiest stations take up a majority of the trips. The two in Venice beach are the heaviest used stations.
6. Do we have the information on fare and payment data? Can you calculate average price per trip?
   We do have fare information but determining frequency was an issue with determining average earnings information. There was no unique rider number to relate back to passholder type.
7. What can you do to improve the predictive model for outgoing bikes further?
   Right now, I am not sure. I need to take another look at the data clean my code a little more and exam the information.
8. Any other predictive analytics use cases can be done on bike sharing network dataset?
   On this data set we can look at busy stations and predict if they will have enough bikes for use. The question of how many users are not getting bikes because Metro Bike ran out of bikes.
9. What is the customer retention rate? Do bike sharing have repeat users?
   I am not sure of this as we don't have customer IDs to perform the analysis. But with Monthly passholders and Annual passholder using the bikes there are repeat users. But to find out if Walkups are repeat users we would need that customer ID.
10. What information would assist in helping biking sharing networks better position for growth?
    Rider data. If we knew more about the riders. Are they visitors to the city or residence of the city? Age of the riders we could understand if there is a segment that is using the bikes more than other. Which segment is using the e-Bikes compared to the standard bikes.