1. **Team info:** Good morning! My name is xxx, and I’m here with my teammates xxxx. We are team VanMoof. Today we are going to present a key finding from our EDA, which is how the commuting patterns transfer bike availability throughout the day.
2. **Definitions:** Before we talk about our analysis, we can define bike availability. Bike availability is the number of bikes in a station at a time divided by the total capacity. In other words, bike availability is the proportion of bikes in a station that are available for a customer to start riding. Once we have this metric, we performed our EDA, where we found that the bike availability is usually higher over night than daytime; Bike availability on weekends and weekdays is comparable; and there are more bikeshare stations and higher capacity in downtown than suburbs. Another one of our key findings is that bike availability is usually changing from working hours to non-working hours, which we will discuss more about that here.
3. **Time:** We saw that during working hours, the bike availabilities are moving. People usually stop to commute around 10 am in the morning and 7 pm in the evening, so we choose these two times as our main focus.
4. **Visualization:** Each point on the graphs represents a bikeshare station. Their colors can show their average bike availability. We average the bike availability of the two times throughout the month June 2019. Reddish color means high bike availability, and blueish color means low bike availability. On the graphs, we can see two clusters in the black and red circles. Between the two times, pattern of stations in the black and red circles shifts. After further investigation, we found that the black circle represents the residential area, and the red circle is the commercial area.
5. **Conclusion:** We can thus conclude that bikes are parked in commercial area after commuting in the morning, and they come back to the residential area after commuting in the evening. So commuting pattern can influence the bike availability distribution over a day.
6. **Next steps:** We now know that location and time are very important in predicting bike availability, and we will likely to include both of them in our modelling process.