



## BIKE MAINTENANCE Planning

Which bikes are in need of maintenance?

### Some things to consider:

- When looking at the Total # of Trips and Total Trip Minutes for the TOP 10 bikes in each category, I was surprised to find no overlap in Bike IDs
- Total number of trips could mean many short distances, without logging a lot of miles
- Total minutes for each bike does not consider time when the bike is not moving but still checked out

### Method of Approach to data analysis:

- Based on these unknown variables, I decided to use the Citi Bike current method for estimating mileage to determine mileage for each individual Bike ID (using an assumed speed of 7.456 mph; and capping at 14.9 miles for trips lasting longer than 2 hours). Since this is based on Total Trip Minutes the Bike IDs are the same in both the Est Mileage and Total Trip Minutes charts; however, it is common practice to service certain bike components based on mileage.

### Recommendation:

- (1) Check the bikes for service needs every 100 estimated miles travelled
- (2) Add to mobile app, the ability for the rider to notify Citi Bank of maintenance that might be necessary upon checking the bike back in
- (3) Rotate bikes through stations since some are more popular than others

