**CitiBike Tableau HomeworkHomeworkHohhh**

Doing this homework, I discovered two phenomena.

1. **Phenomenon of Age Group 48-51**

When I was plotting the graphs *Age vs Average Trip Duration* and *Age vs Total Number of Trips,* I noticed that the age group 48-51 has much longer trip duration and bigger number of trips than neighboring age groups. I decided to find out what is going on. I plotted distribution by customer type and gender for this age group. It seems like there is some kind of inconsistency of data for Customer Users. It happens probably during the registration. Customers input gender and age incorrectly or skip it and the software executes default input. When I illuminated unknown gender from the list of genders, visualizations started to look differently, without the splash in this age group.

1. **Average Trip Duration Phenomenon**

When I was plotting *Average Trip Duration vs User Type Monthly Distribution*, I noticed that in February there is a pick of average length of trips. It looked strange, as February is a winter month and it is not likely that people will make the longest trips during this time. I decided to check what year and what gender this is happening for. It seems like the phenomena is happening because before July 2018 there was another way to calculate a trip duration. I suggested that after July 2018 the trip duration was limited to a certain number if, for example bike was not docked properly and was missing/stolen.