

## **Project**

Can Current Istanbul's Subway System, Sustain The Growing Population

### **Introduction**

The transportation is very important tool in Istanbul, going from A point to B is a must in our daily life. I use public transportation in my daily life very often, but Istanbul's population is growing every day and it won't stop, everyone uses public transportation, there is other transportation currently working like metrobus, ferries, etc. but for me the most fast and popular one is subways. So, I decided to run some tests to see how far to days subway working capacity, can handle with growing population.

### **Data-set Description**

In this project I'm aiming to use five datasets, I gather my data from TUIK and IBB open data websites, their descriptions are flow like;

- 1- istanbul\_yillara\_gore\_nufus\_artisi.xlsx (9KB)
- 2- rayli-sistemler-hat-bazli-yolculuk-saylari.xlsx(11KB)

### **Experiments Will Run**

I will try to use every thing we learned in this lecture to show my work. For this I will make a hypothesis and my hypothesis is in five years the current subway system will not gonna able to sustain the passenger capacity.

I will run plenty of tools for illustration of graphs like, logistic regression, knn, k-means etc. Then I will apply a/b testing to to show whether my hypothesis is valid or not.

### **Conclusion**

As a summary I will examine the current subway working capacity and will try to predict how we should expand their working capacity to sustain future populations usage of this transportation systems.

### **References**

- 1- <http://www.tuik.gov.tr/PreTabloArama.do?metod=search&araType=vt>
- 2- <https://data.ibb.gov.tr/dataset?q=rayli%C4%B1>