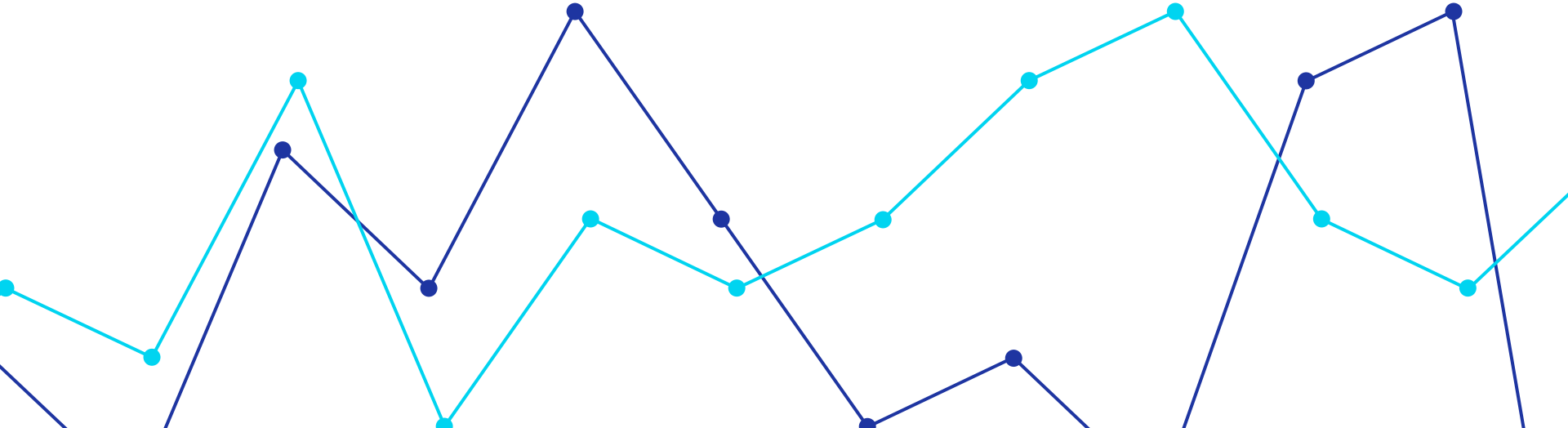
Helsinki City Bikes

Mid Bootcamp Project

Heloisa Bal



Helsinki City Bikes

What?

Helsinki City Bikes is a public bicycle system in Helsinki.

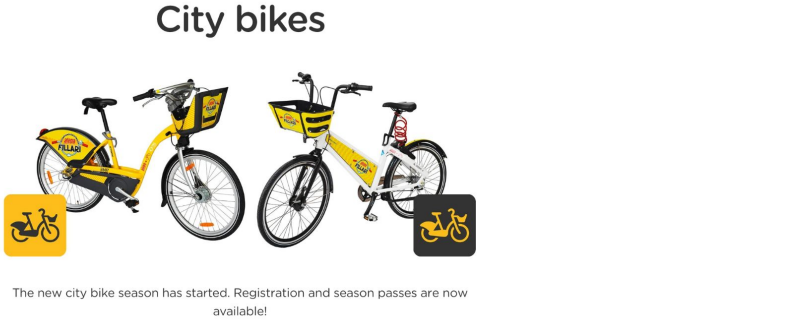
Why?

High interest in biking and micro mobility in general.

Data sets

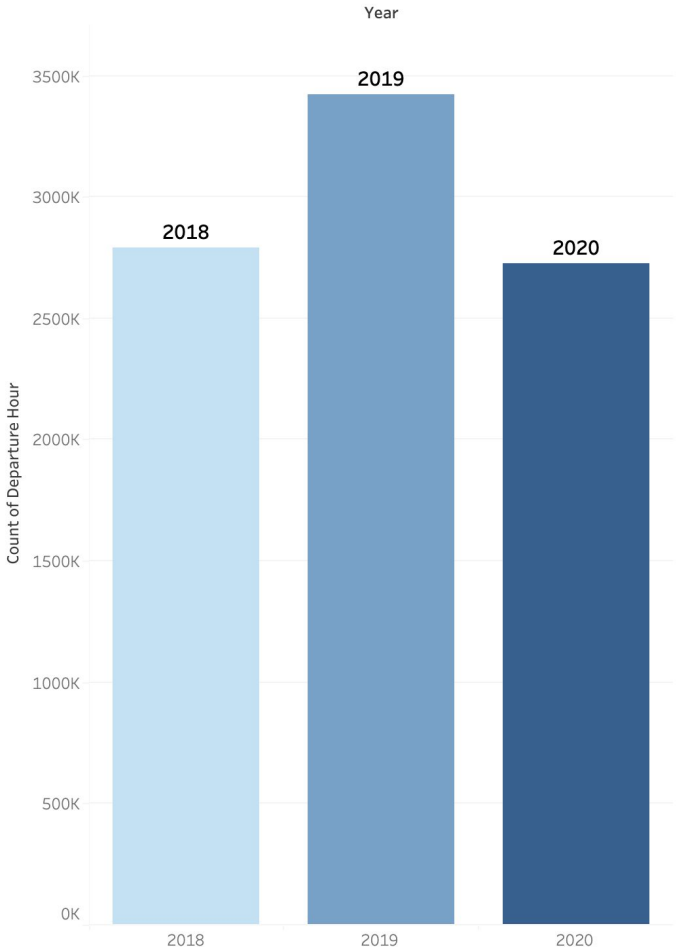
Kaggle Dataset
2018 - 2020 (3 years)

Meteorological data
2018 - 2020 (3years)

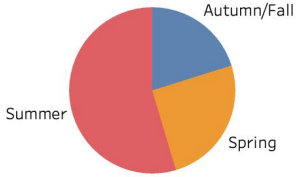


General Overview

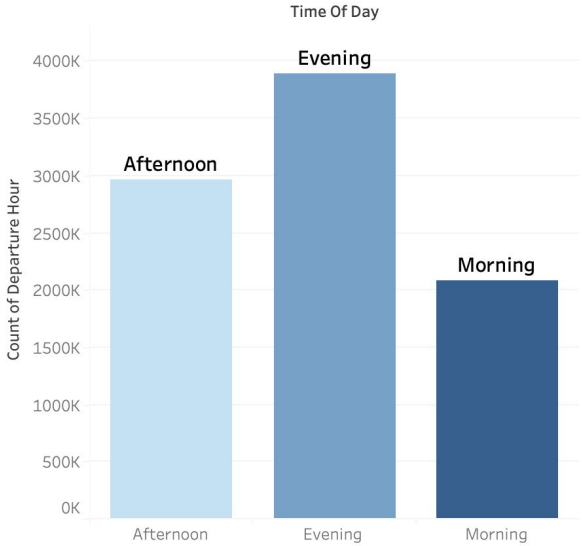
Bike Trips per Year



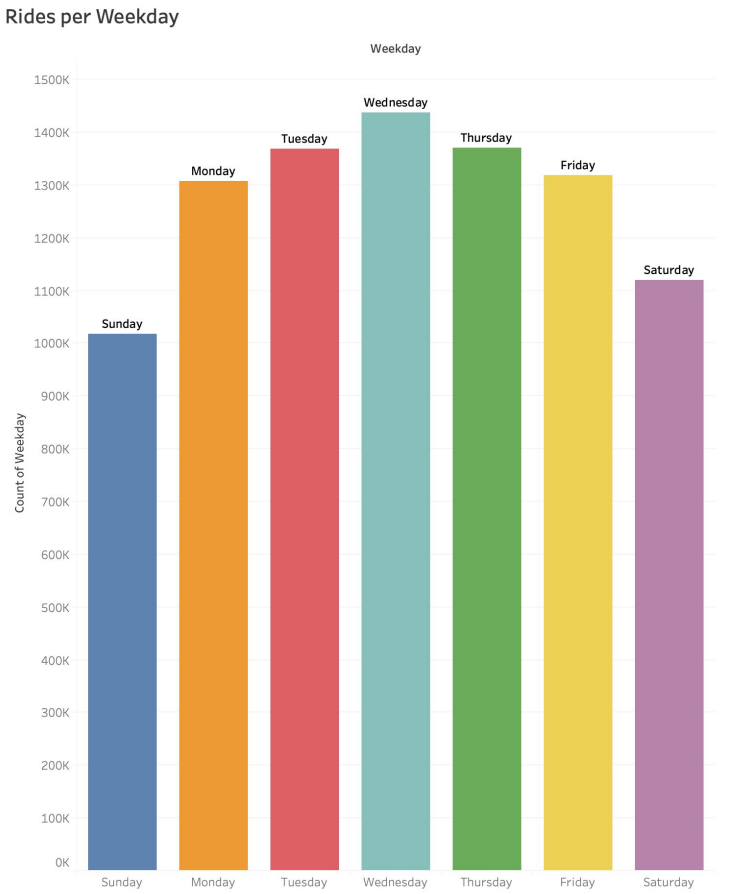
Trips by Season

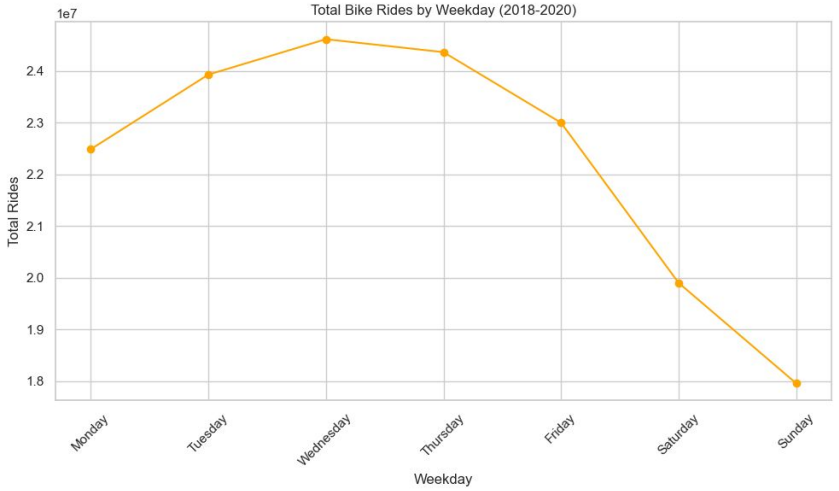


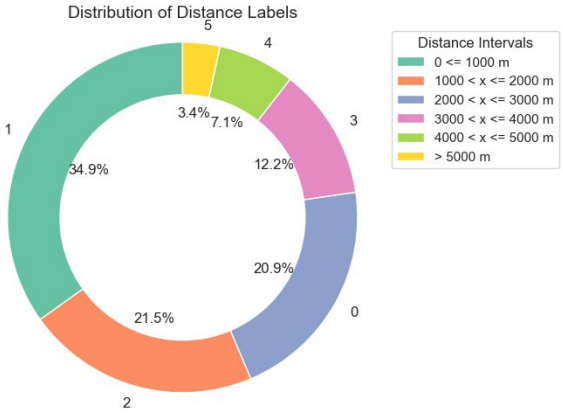
Trip Counts by Time of Day



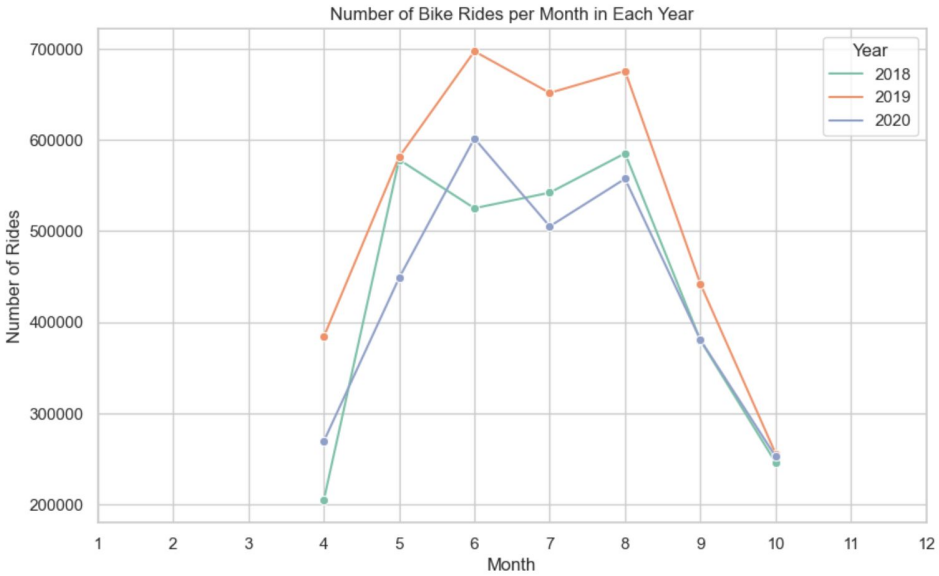
General Overview

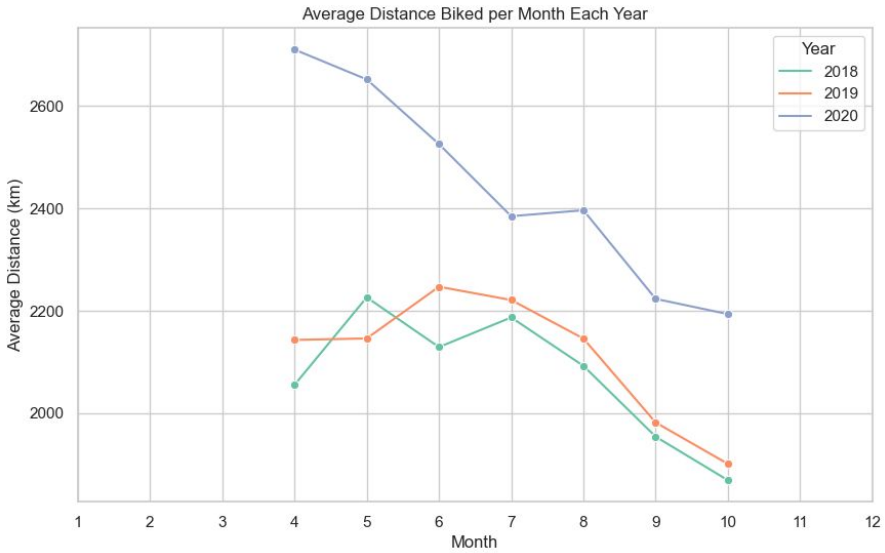




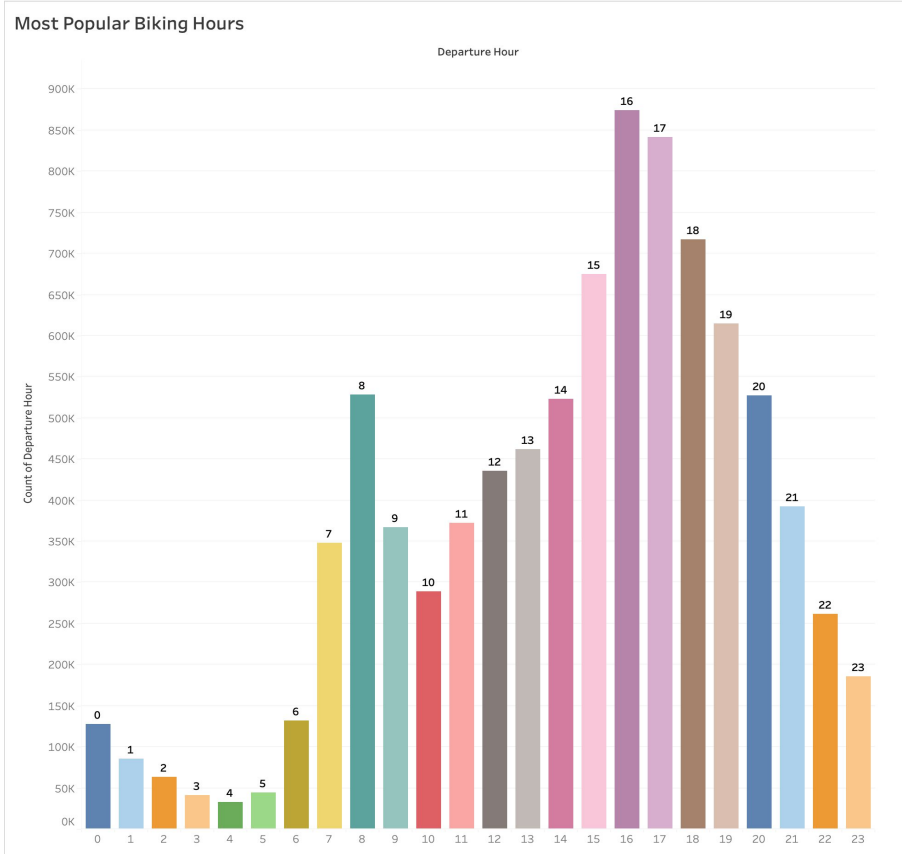


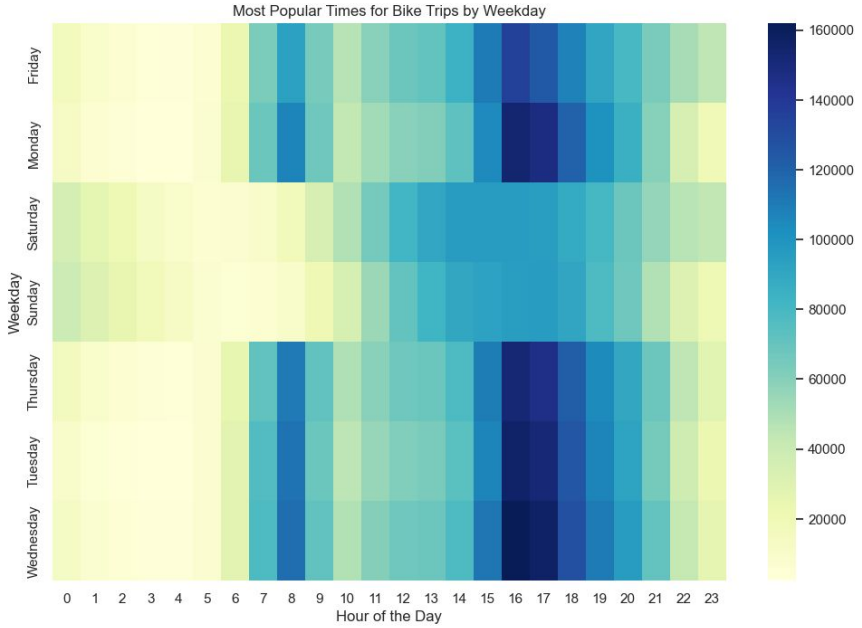
Monthly bike rides & Monthly average bike distance



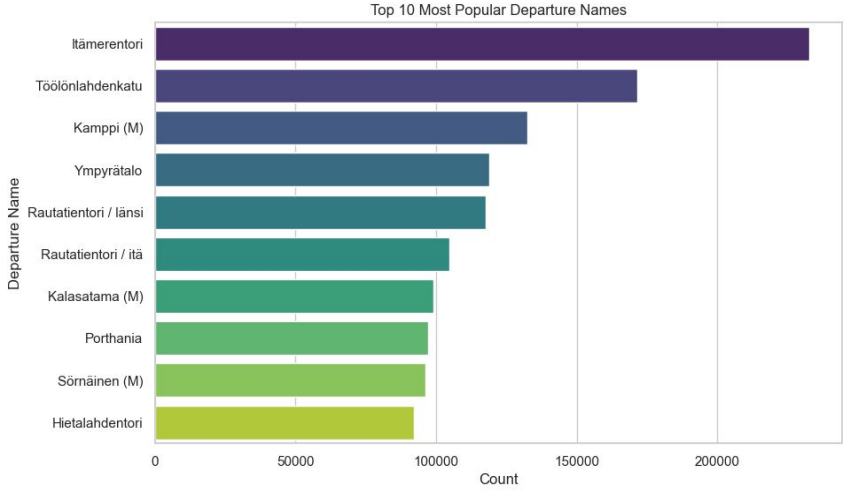


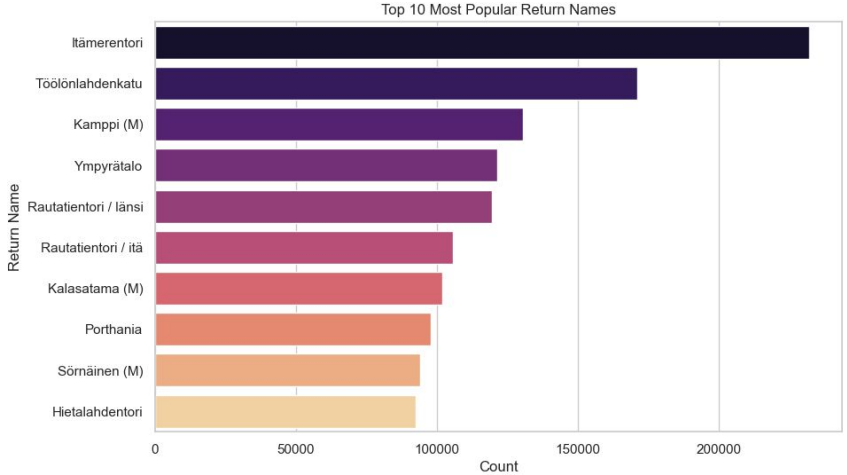
Most popular biking hours

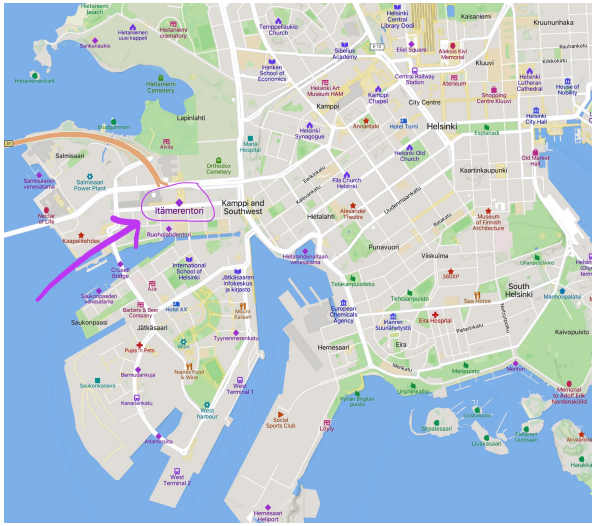


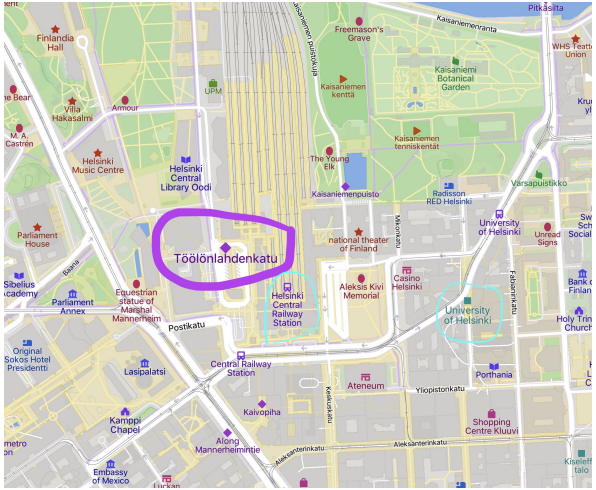


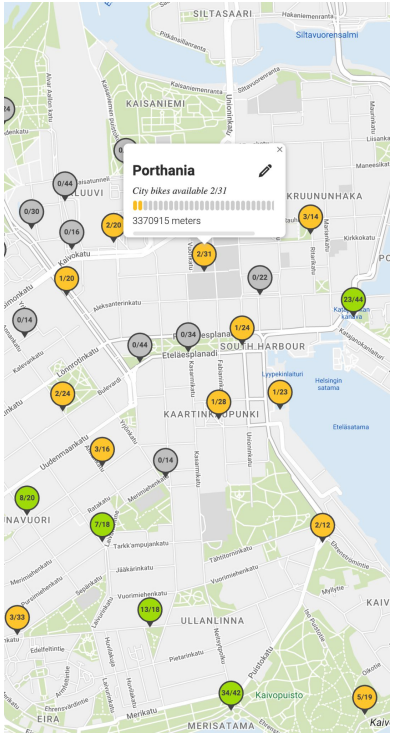
Popular Docks



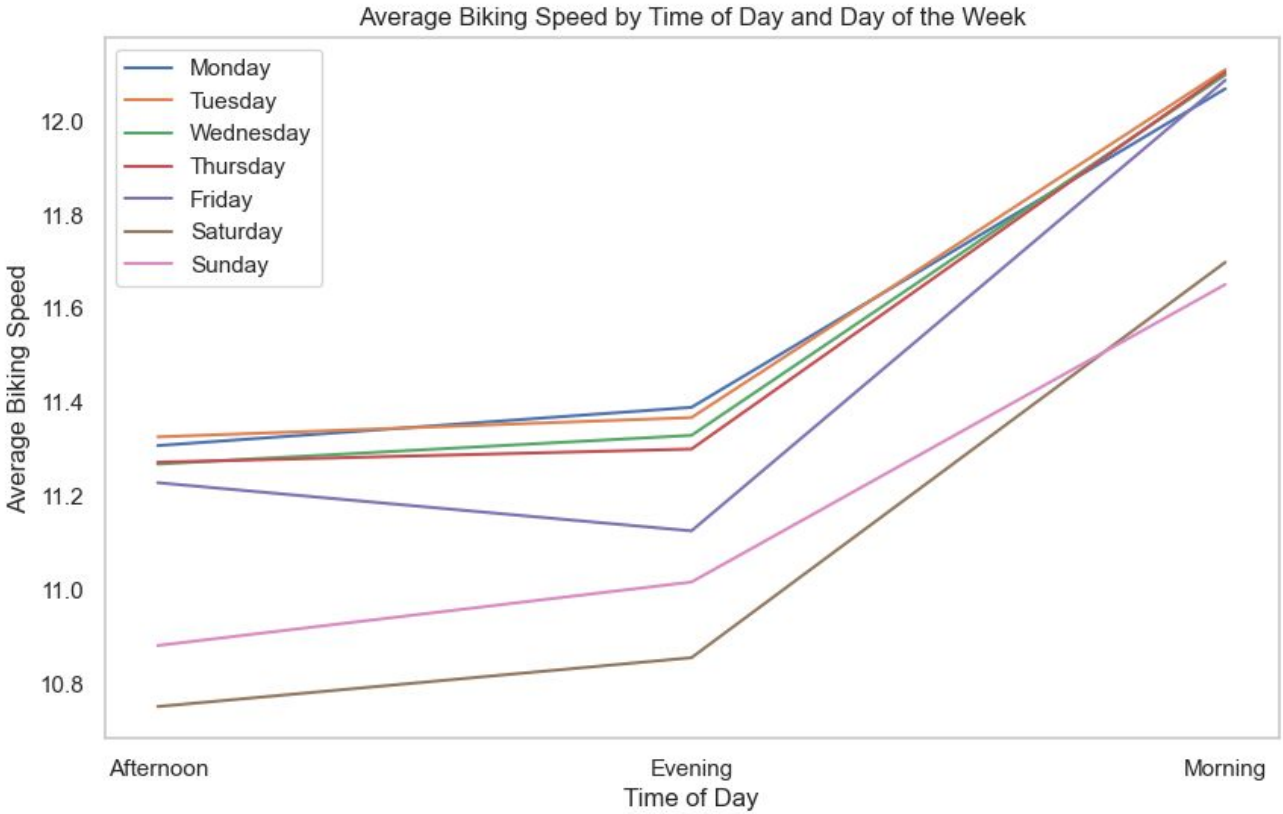




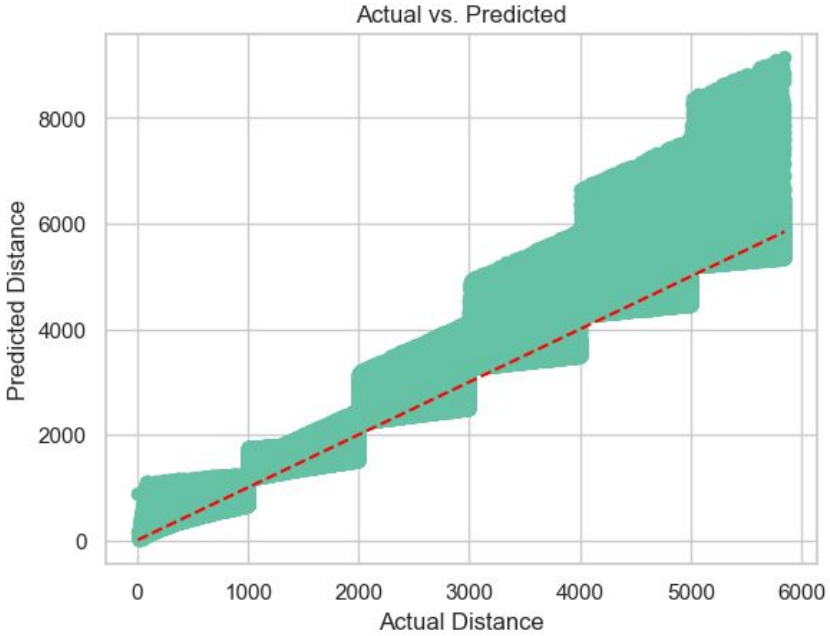


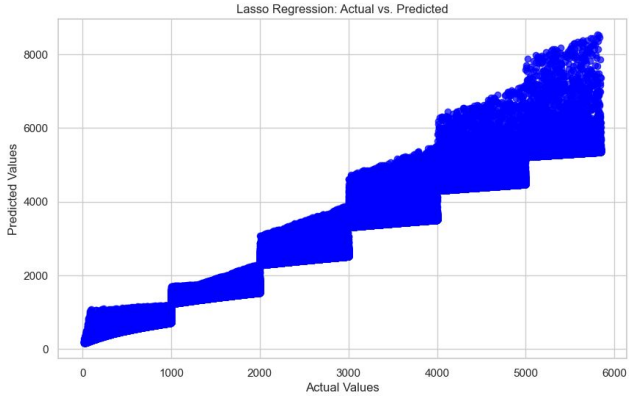


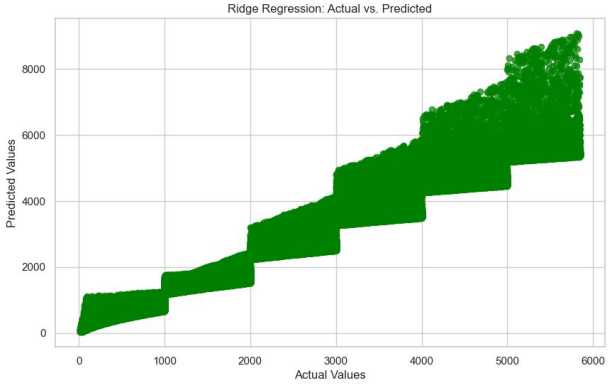
Most interesting insight!



Model Building





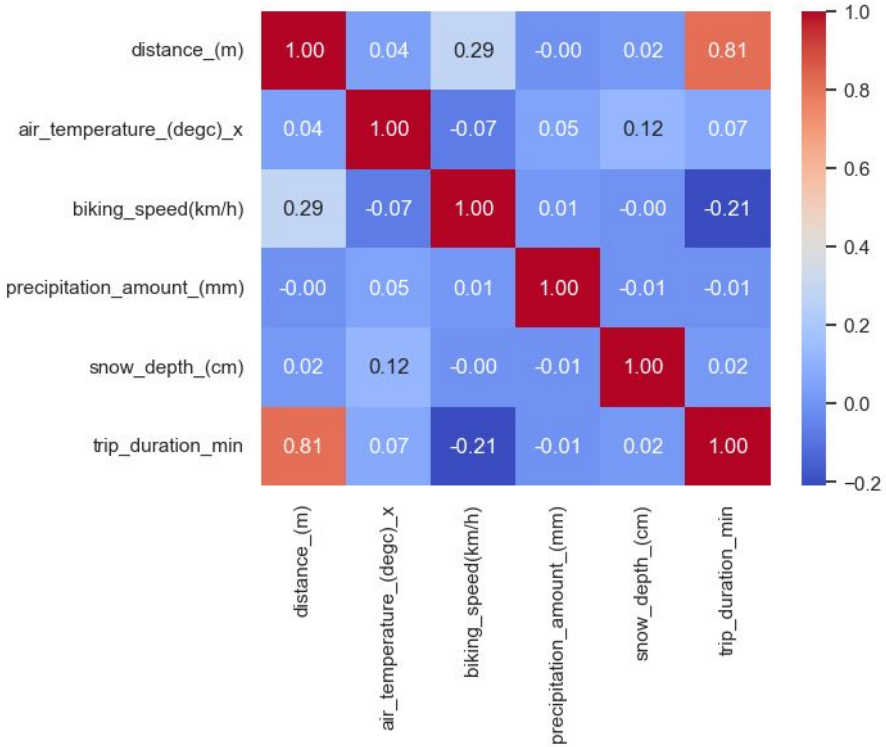


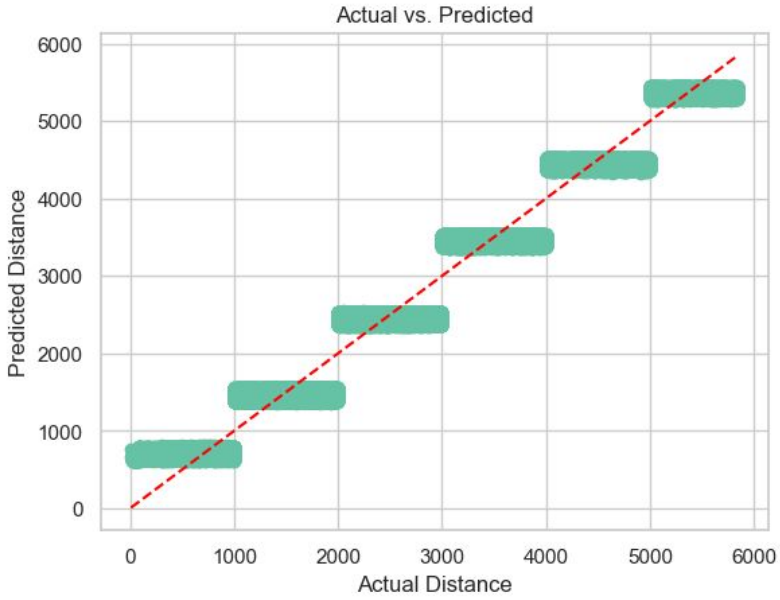

```
R-squared: 0.9687
Mean Squared Error: 51149.9066
Root Mean Squared Error: 226.1635
```

```
1 y_test[:5]

4590461     871.0
9638049     679.0
1277544    1823.0
3821326    1917.0
2089904    2664.0
Name: distance_(m), dtype: float64

1 predictions_test[:5]

array([ 876.6875    ,  640.30371094, 1512.50244141, 1679.890625  ,
       2528.74658203])
```

```
Model: lasso, train R2: 0.9682949228117823 -- test R2: 0.9682393998914398
Model: ridge, train R2: 0.9686873425868942 -- test R2: 0.9686433169378844
Model: elastic, train R2: 0.21608410810857315 -- test R2: 0.21614102981897487
```

Removing variable based on colinearity






```
R-squared: 0.9563
Mean Squared Error: 71338.1096
Root Mean Squared Error: 267.0919
```

Thank you!

Questions?