

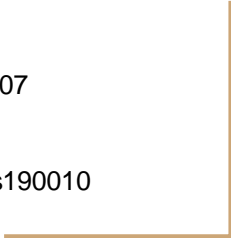


# MIS6382.003

## Final Project

### Group 8

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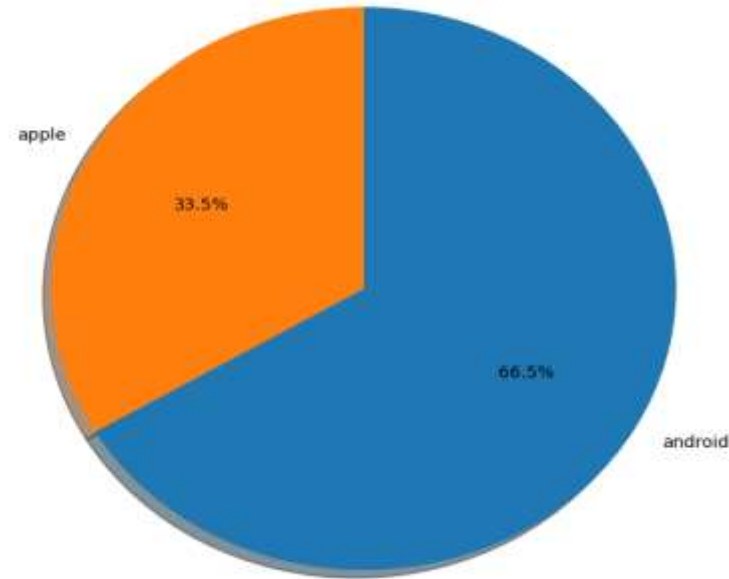


# Introduction

- Phone data from a marketplace
- Data size of 10000
- 8 Columns (unique\_id,date,model,company,type,rating,price,battery\_health)
- Price, Rating , Battery Health are numerical data fields whereas model,Company and type are categorical data fields
- Unique\_id is a identifier fields and hence can be ignored from the visualization.
- Upon investigation of data, we found that missing values comprised of 2.2075% dataset.
- We filled the missing data of 'rating', 'price' and 'battery\_health' columns by using mean of each column within its respective model group.
- The missing data of date was filled by using mode of within each model group.

# Pie Chart

Distribution of Type

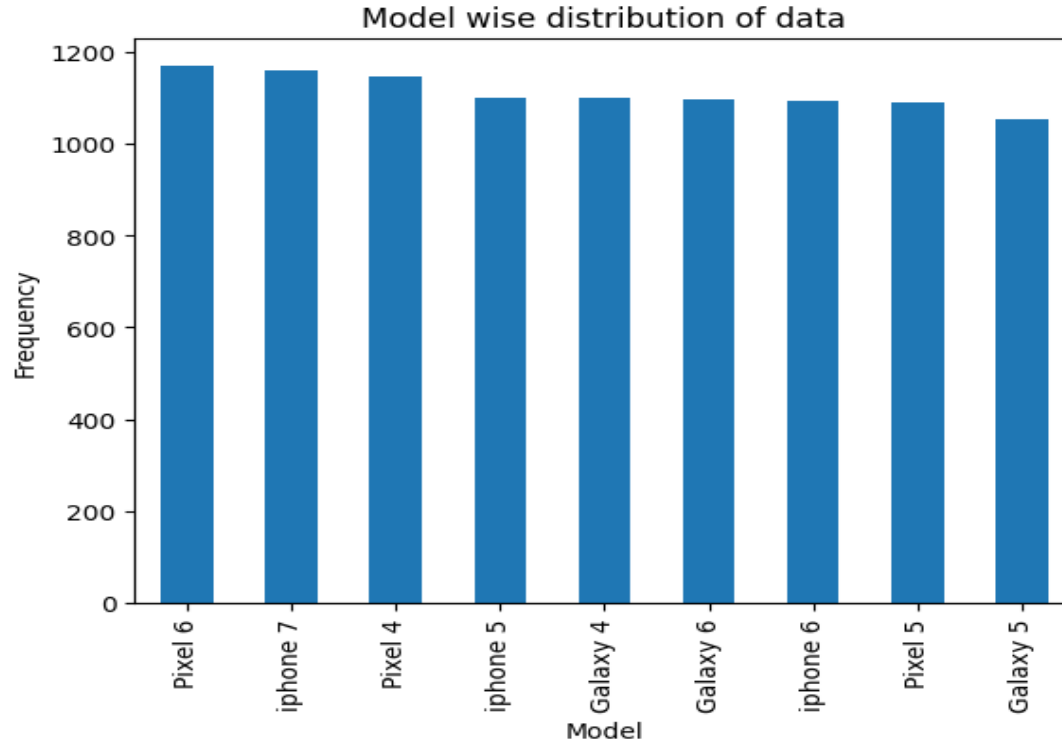


Total number of phones: 10000

Number of Android phones: 6651

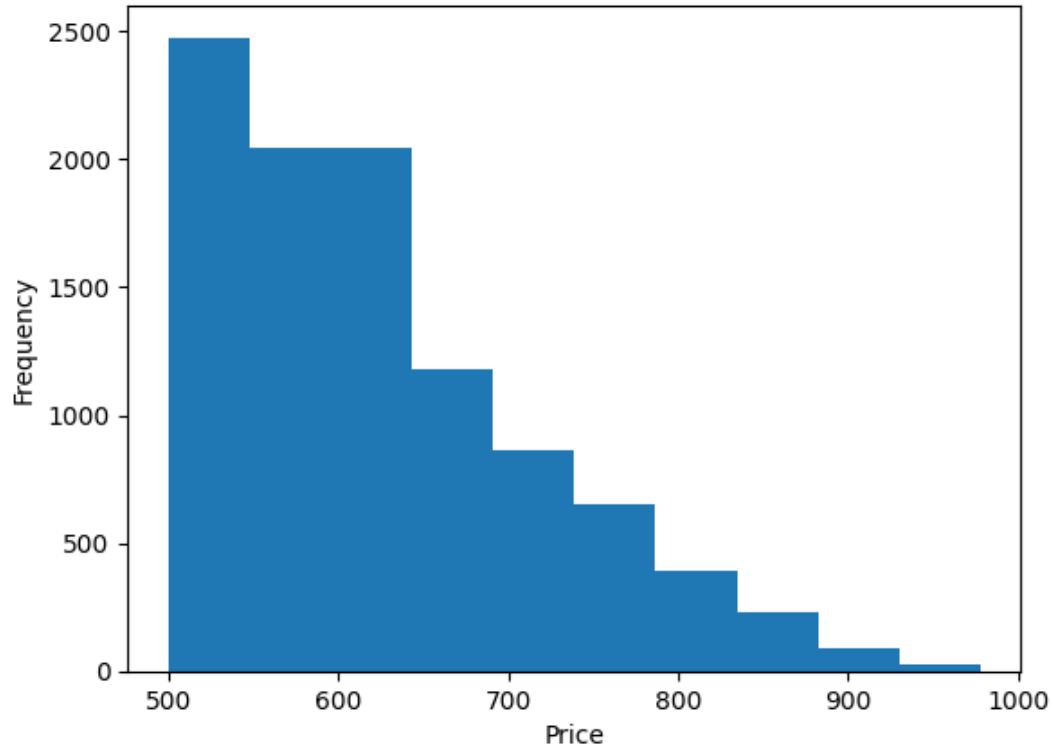
Number of Apple phones: 3349

# Bar Chart

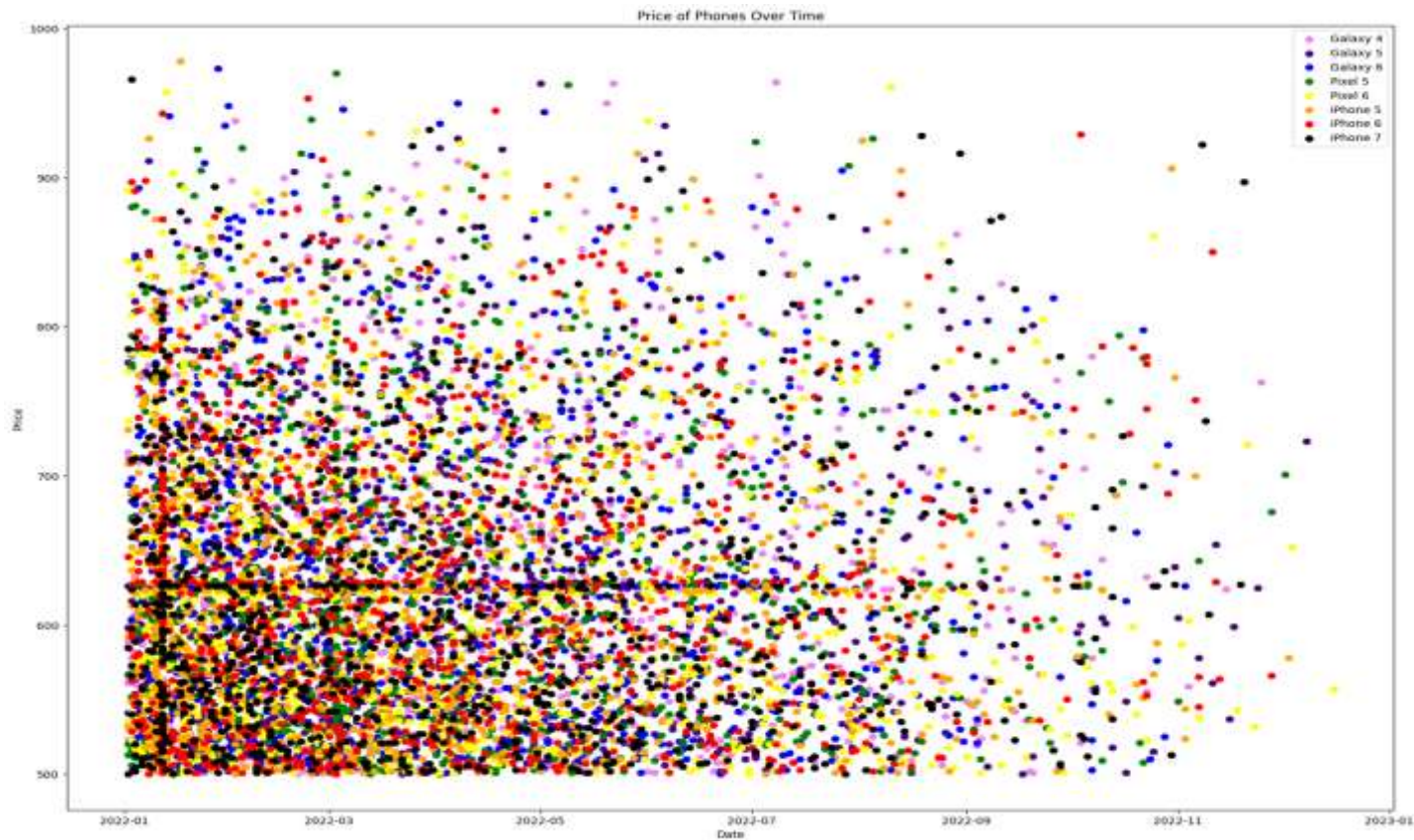


# Histogram

Price distribution for All Models



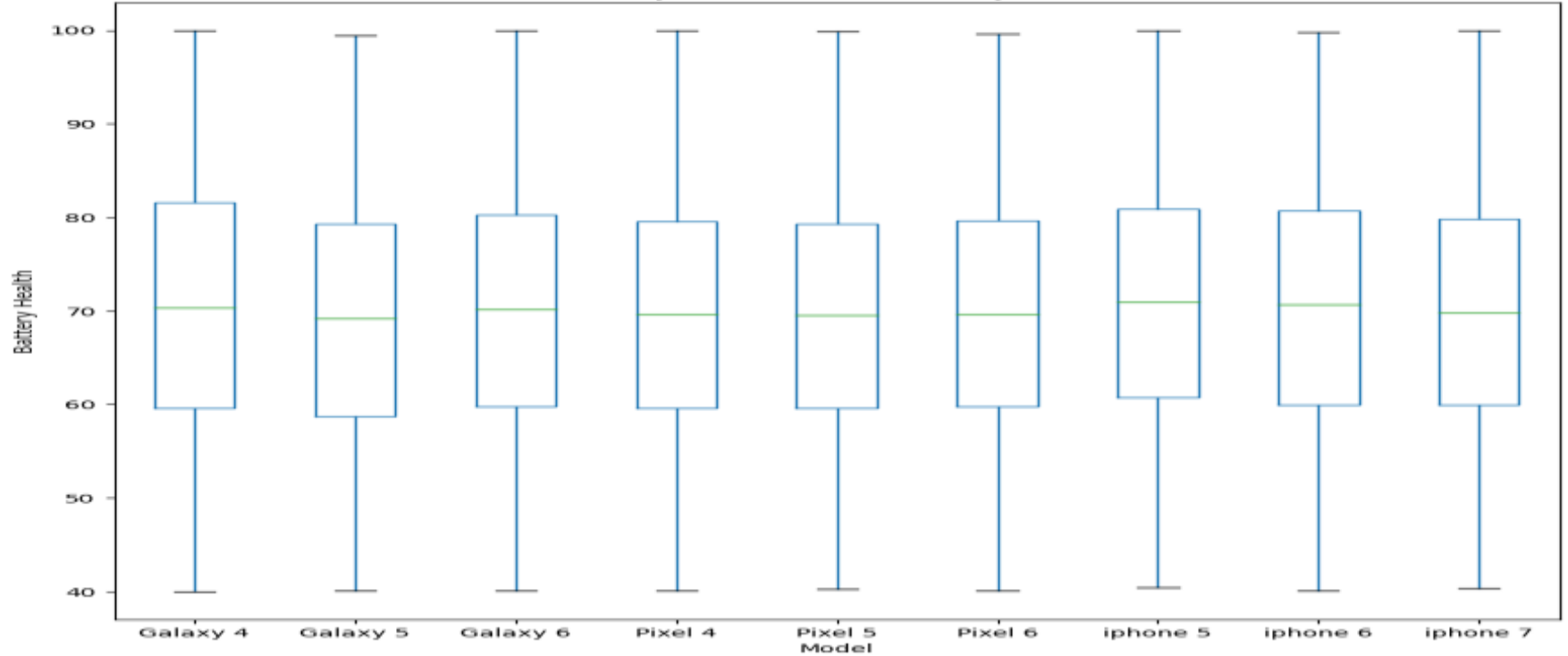
# Scatter Plot



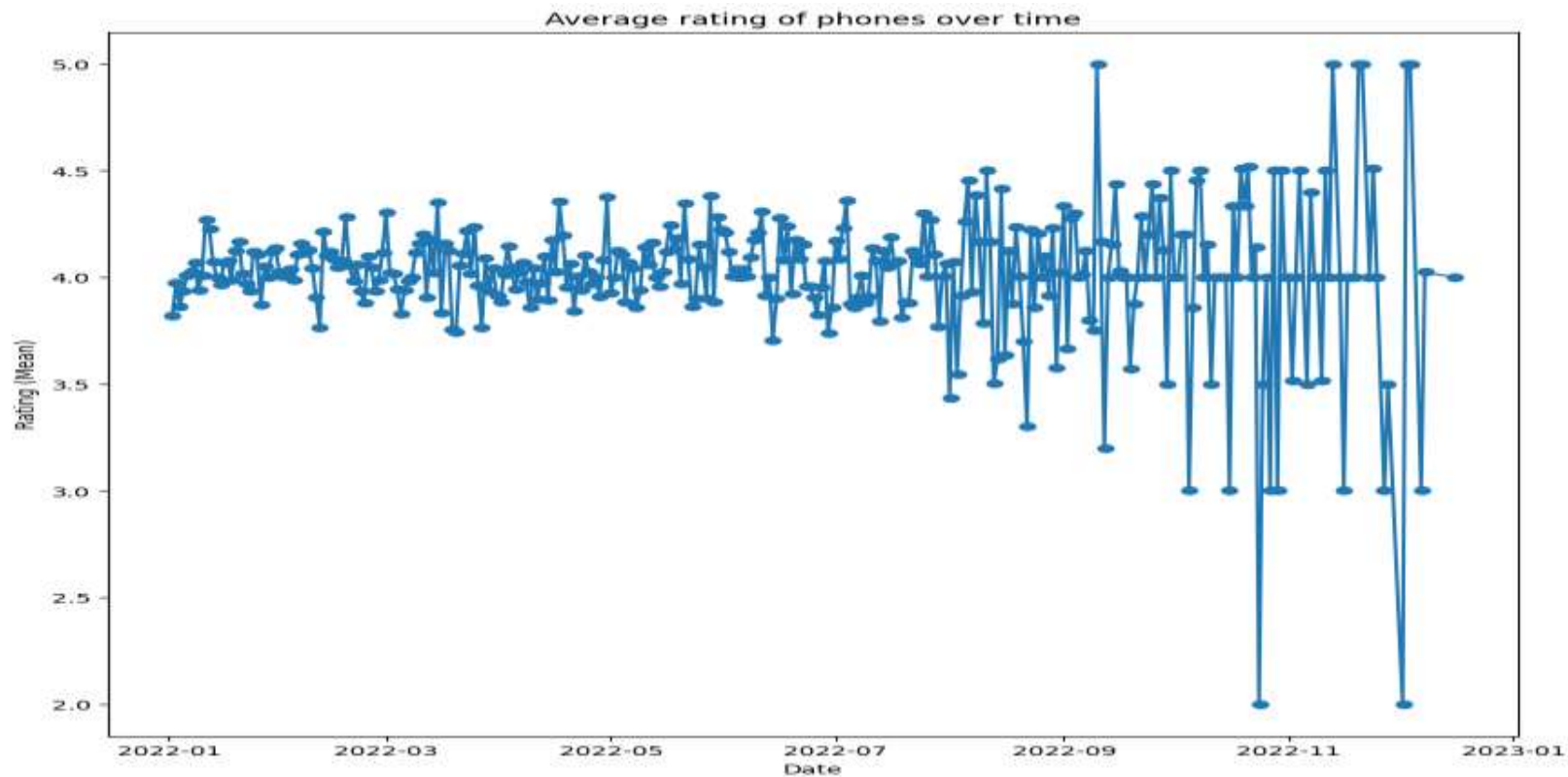
# Box Plot

Boxplot grouped by model

Battery Health Distribution by model

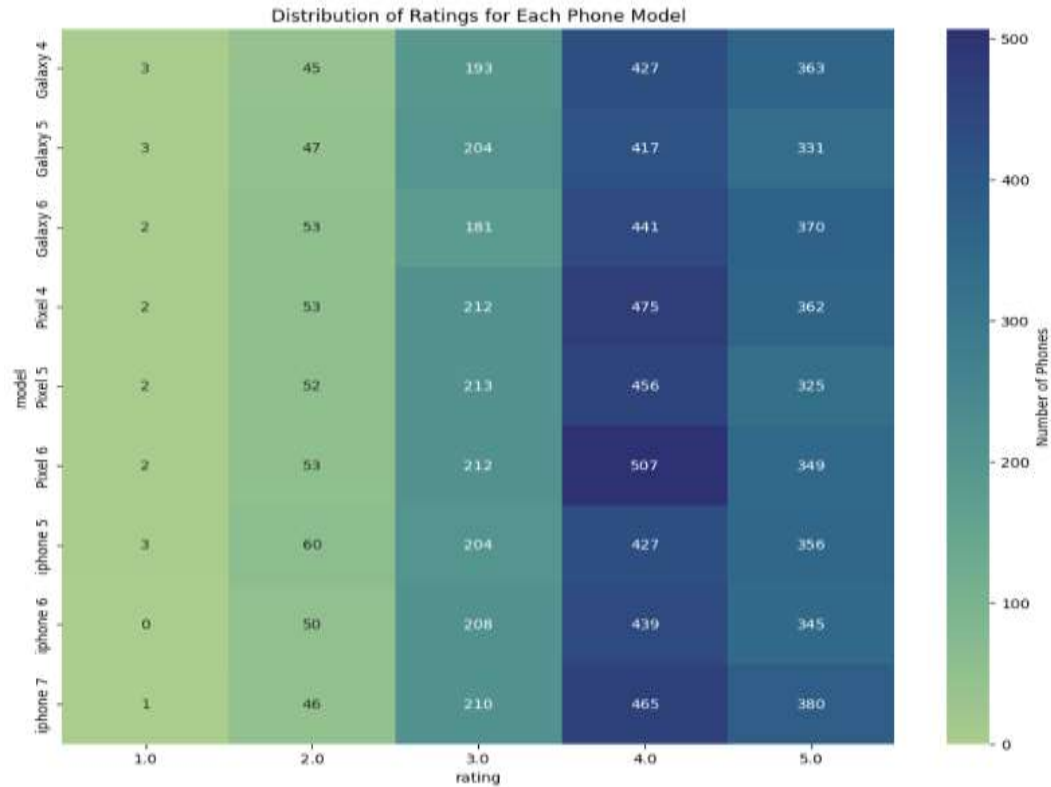


# Line Plot





# Heat Map



# Conclusion

- The pie chart illustrates the distribution of Apple and Android phones, revealing that Android phones account for 66.5%, whereas Apple phones constitute 33.5%. The data indicates a substantial difference, with Android users surpassing Apple users by approximately twice the percentage (33%).
- Based on this data, it appears that the Pixel 6 is a clear leader in the market with 10.9% higher sales than the least popular one.
- From this data, it can be inferred that most models are relatively affordable. The median price is around \$602.00, which means that half of the models are more expensive than \$602.00 and half are less expensive.
- The Scatter Plot describes the trend in phone prices over the time. From the visualization it is clear that the prices have clustered in the lower left corner of the the graph, suggesting that the prices of the second hand phones do not correlate well with the time and even more recent phone will fetch around low price in the resale market.
- The iPhone 5 have the highest median battery health, while pixel 4 the has the lowest median battery health. There is also some variability in battery health within each model. For example, the Galaxy 4 and Pixel 4 models have wider boxes than the Galaxy 6 and Pixel 6 models, which indicates that there is more variability in battery health for these models.
- The data suggests that the Pixel 6 is the most popular and highly-rated phone model in the visualisation. The iPhone 7 and Pixel 5 are also popular and highly-rated, while the Galaxy 4, Galaxy 5, and Galaxy 6 are less popular and have lower average ratings.