



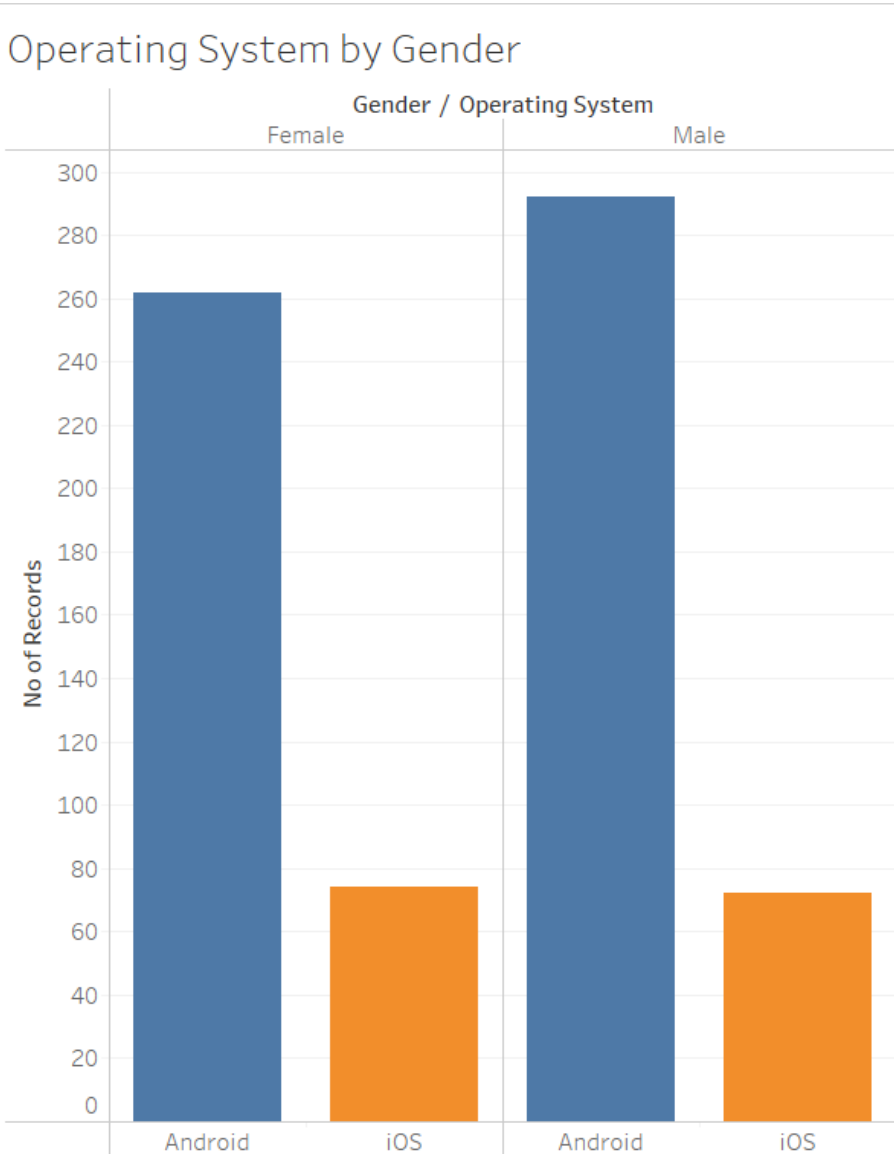
# MOBILE DEVICE USAGE PATTERNS AND USER BEHAVIOUR CLASSIFICATION

# DATASET



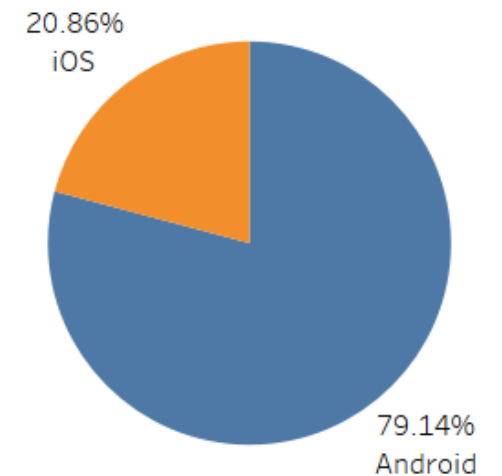
- This dataset analyzes mobile device usage patterns and classifies user behavior into five categories, from light to extreme usage.
- It includes 700 samples with metrics such as app usage time, screen-on time, battery drain, and data consumption. Key features include user ID, device model, operating system, number of apps installed, age, gender, and user behavior class.
- Data Link:  
<https://www.kaggle.com/datasets/valakhorasani/mobile-device-usage-and-user-behavior-dataset>

# OPERATING SYSTEM



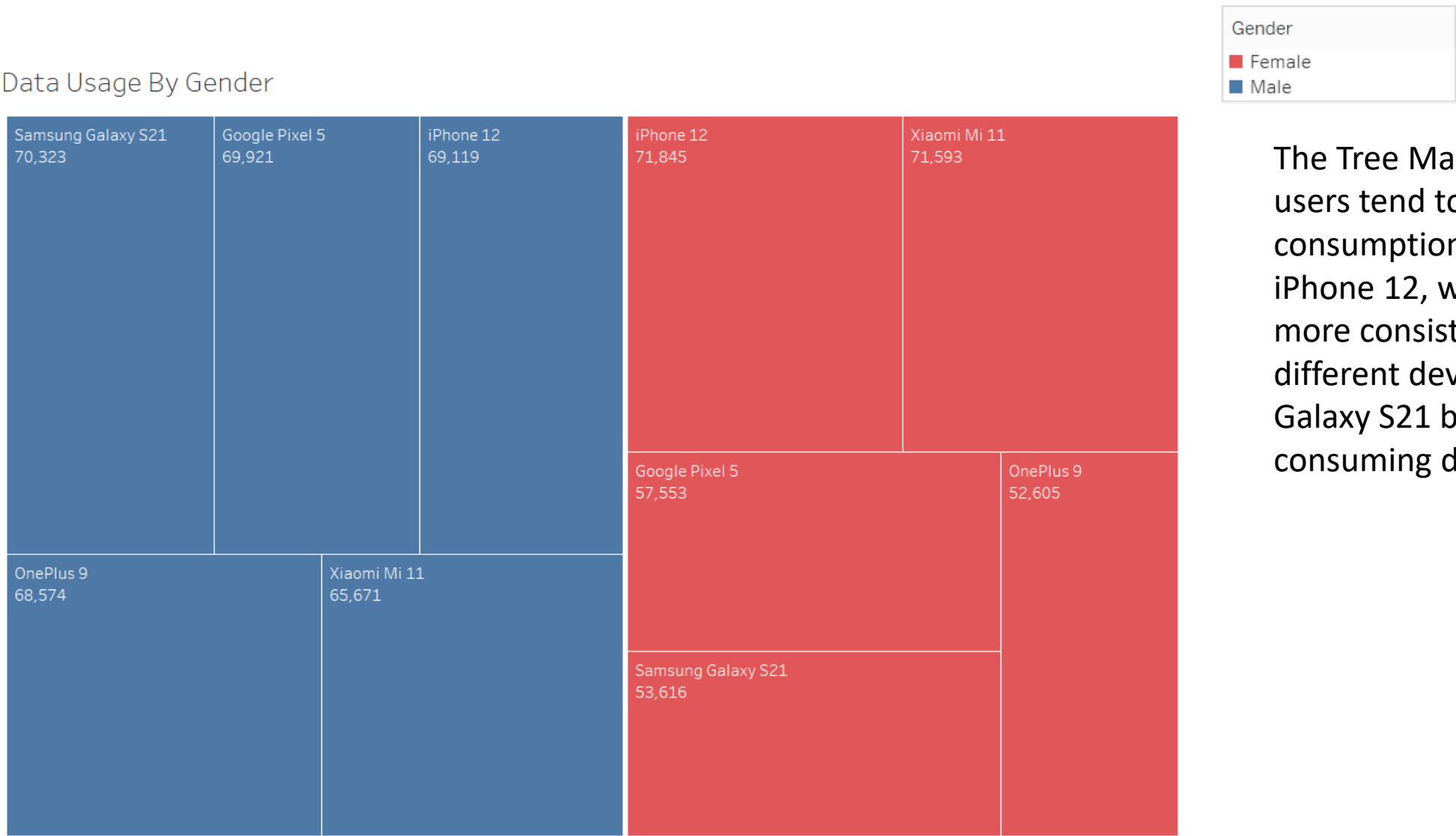
- The bar graph highlights the distribution of operating systems (Android vs. iOS) by gender.
- Android dominates across both genders, with approximately 290 male and 260 female users.
- iOS usage is significantly lower, with around 75 users each for both males and females.
- Pie Charts Shows that most devices in the dataset run on **Android**, with a smaller share on **iOS**.

Device Count by Operating System



# DATA USAGE BY DEVICE MODEL

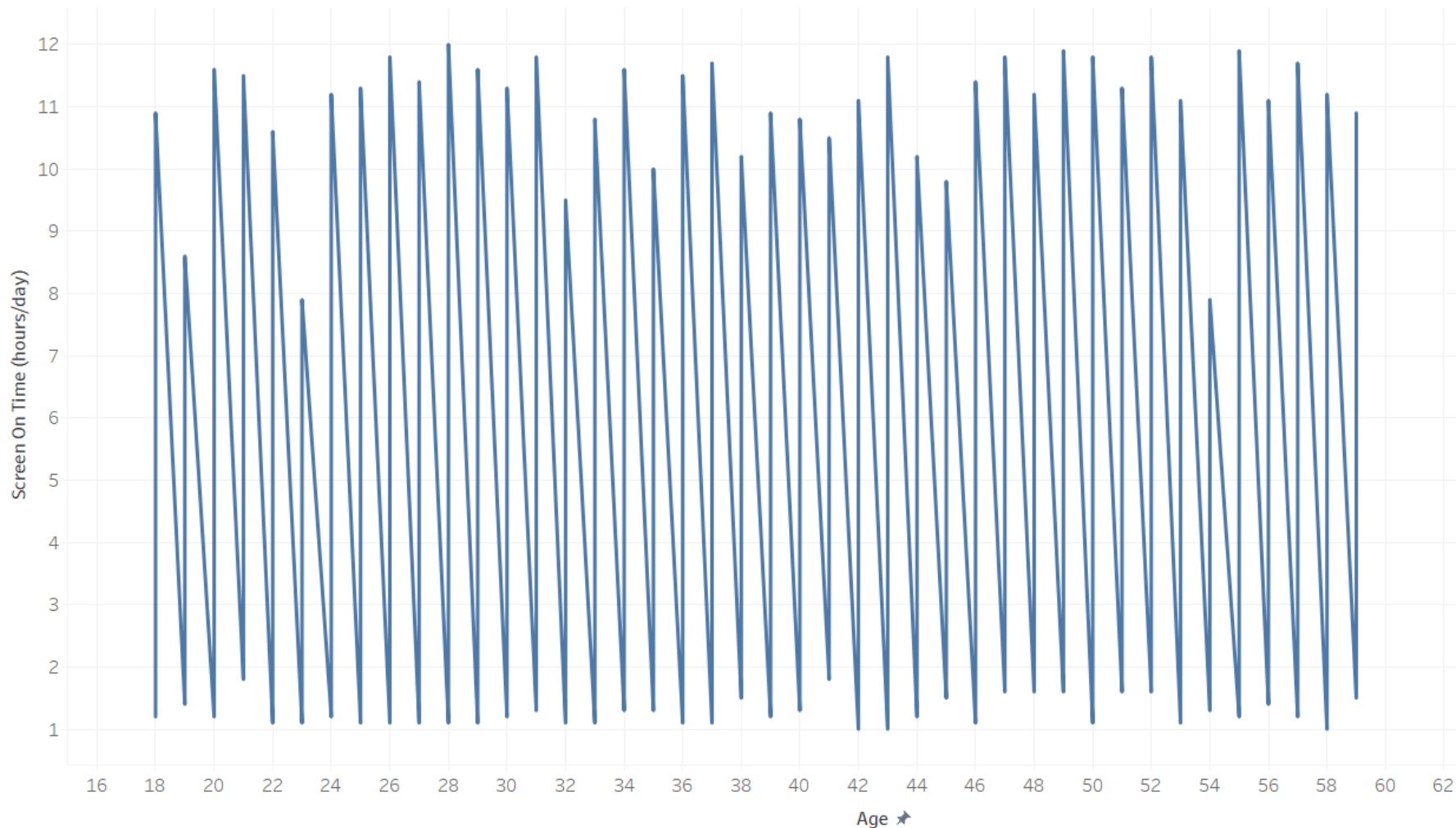
Data Usage By Gender



The Tree Map reveals that female users tend to have higher data consumption on Xiaomi Mi 11 and iPhone 12, while male users show more consistent usage across different devices, with Samsung Galaxy S21 being their highest data-consuming device.

# SCREEN TIME BY AGE

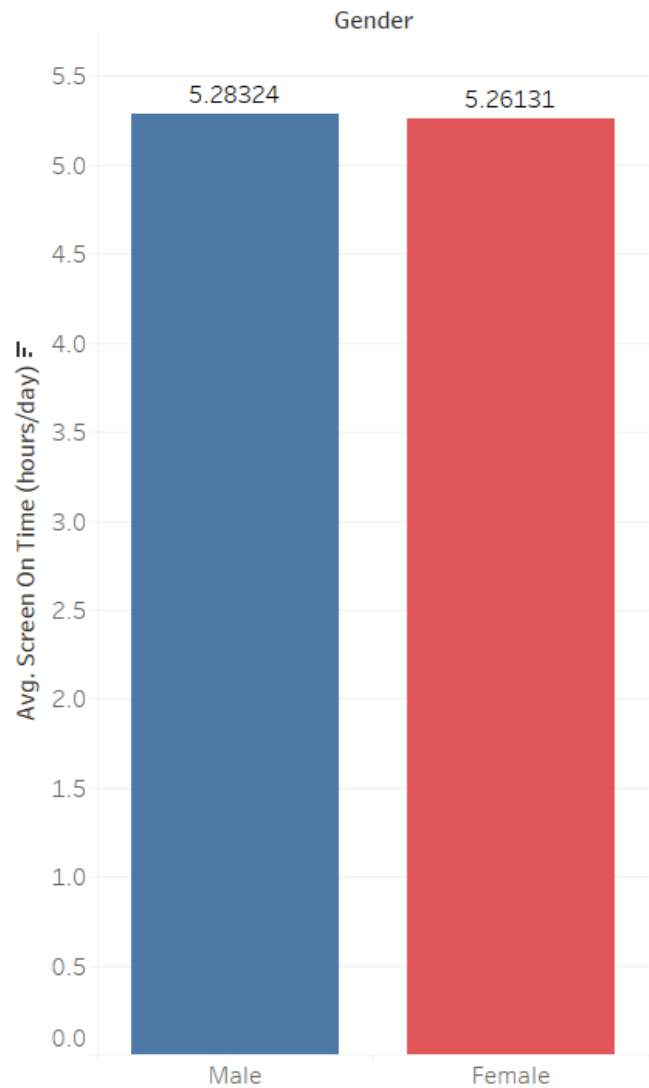
Screen On Time by Age



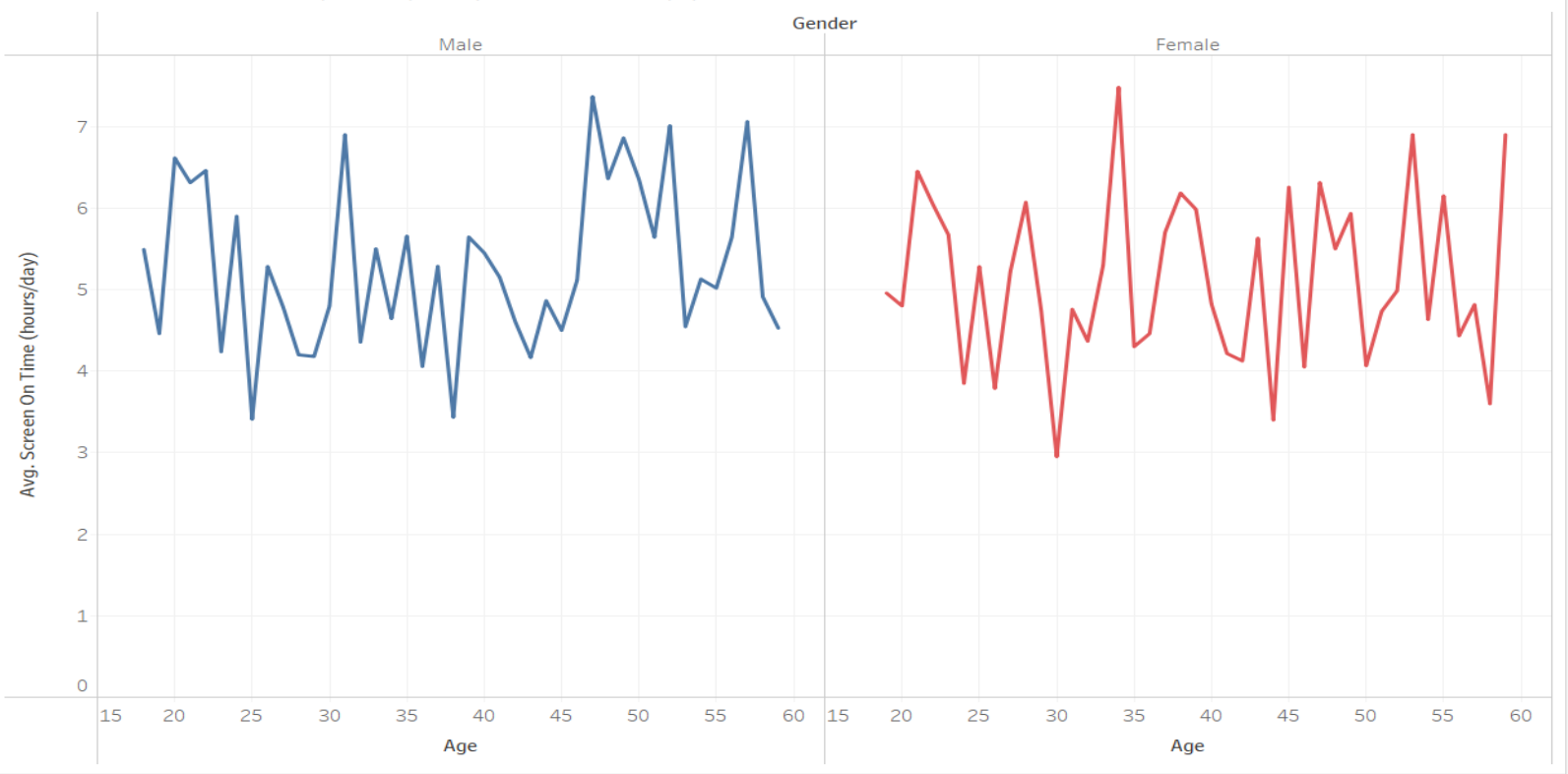
- The maximum screen time peaks at around 12 hours per day
- The minimum screen time consistently drops to about 1-2 hours per day
- The line graph shows regular fluctuations across all age groups
- There's no clear trend of increase or decrease with age
- The oscillation pattern remains consistent from younger to older ages

# SCREEN TIME BY GENDER

Screen On Time Avg. (hours/day) Vs. Gender

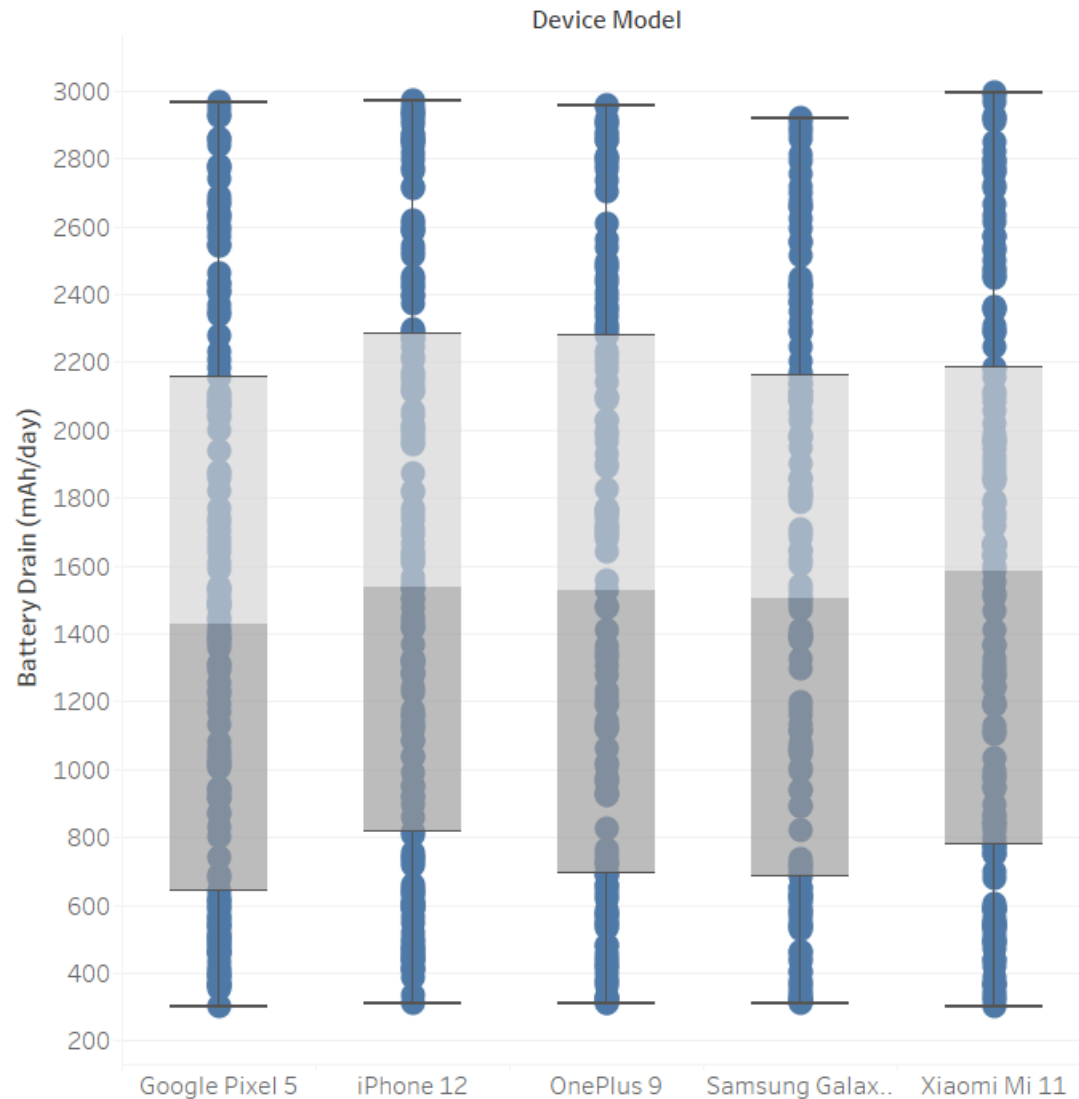


Screen On Time Avg. (hours/day) Vs. Gender (2)



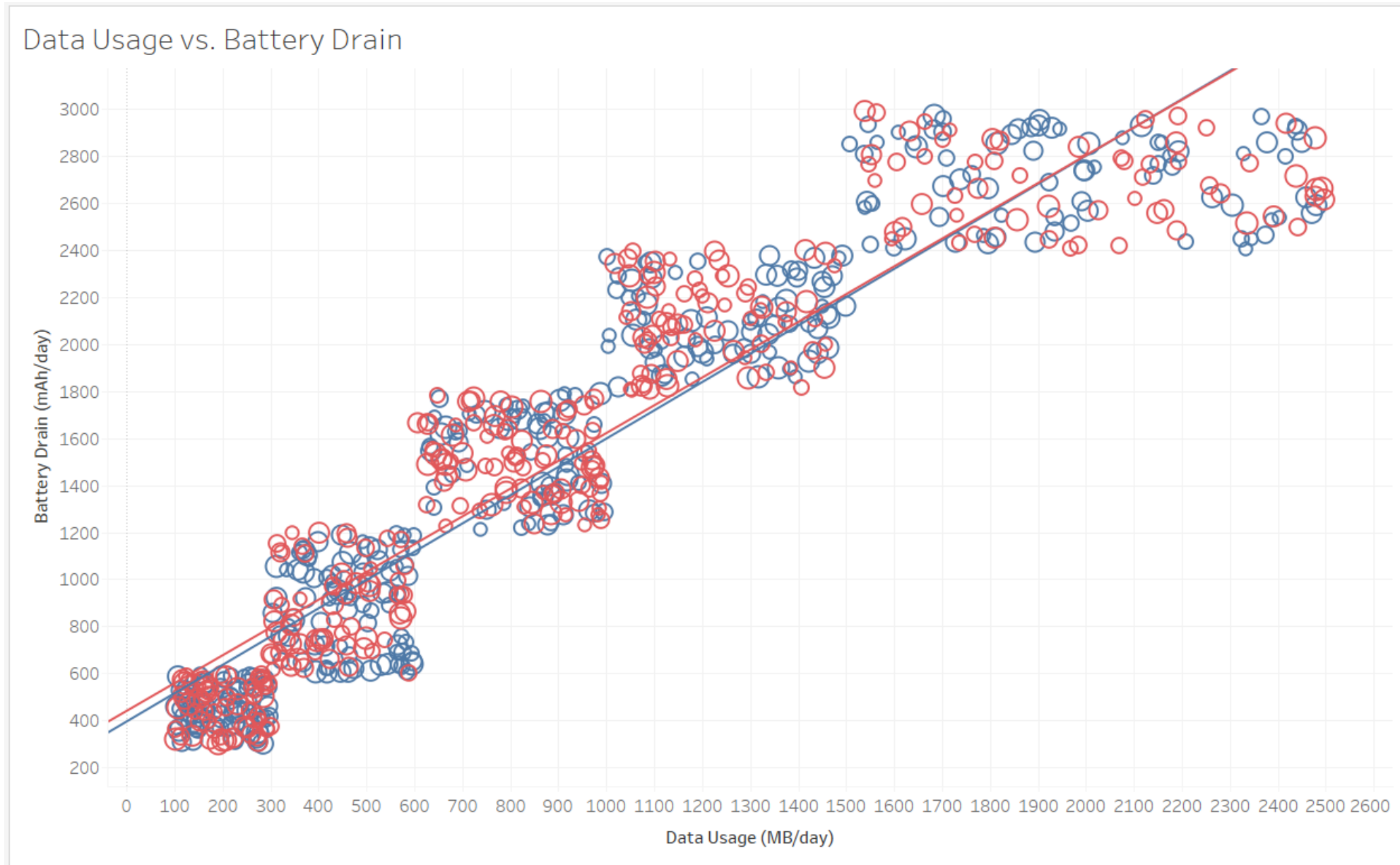
# BATTERY DRAIN BY DEVICE MODEL

Battery Drain by Device Model



- All devices maintain drain values between 2155 - 2282 mAh/day at their upper ranges.
- Xiaomi Mi 11 shows the highest average daily drain.
- The difference between highest and lowest drain is approximately Avg. 156 mAh/day.
- Google Pixel 5 and Samsung Galaxy S21 show more consistent battery performance. So, we can recommend this phones for buying.

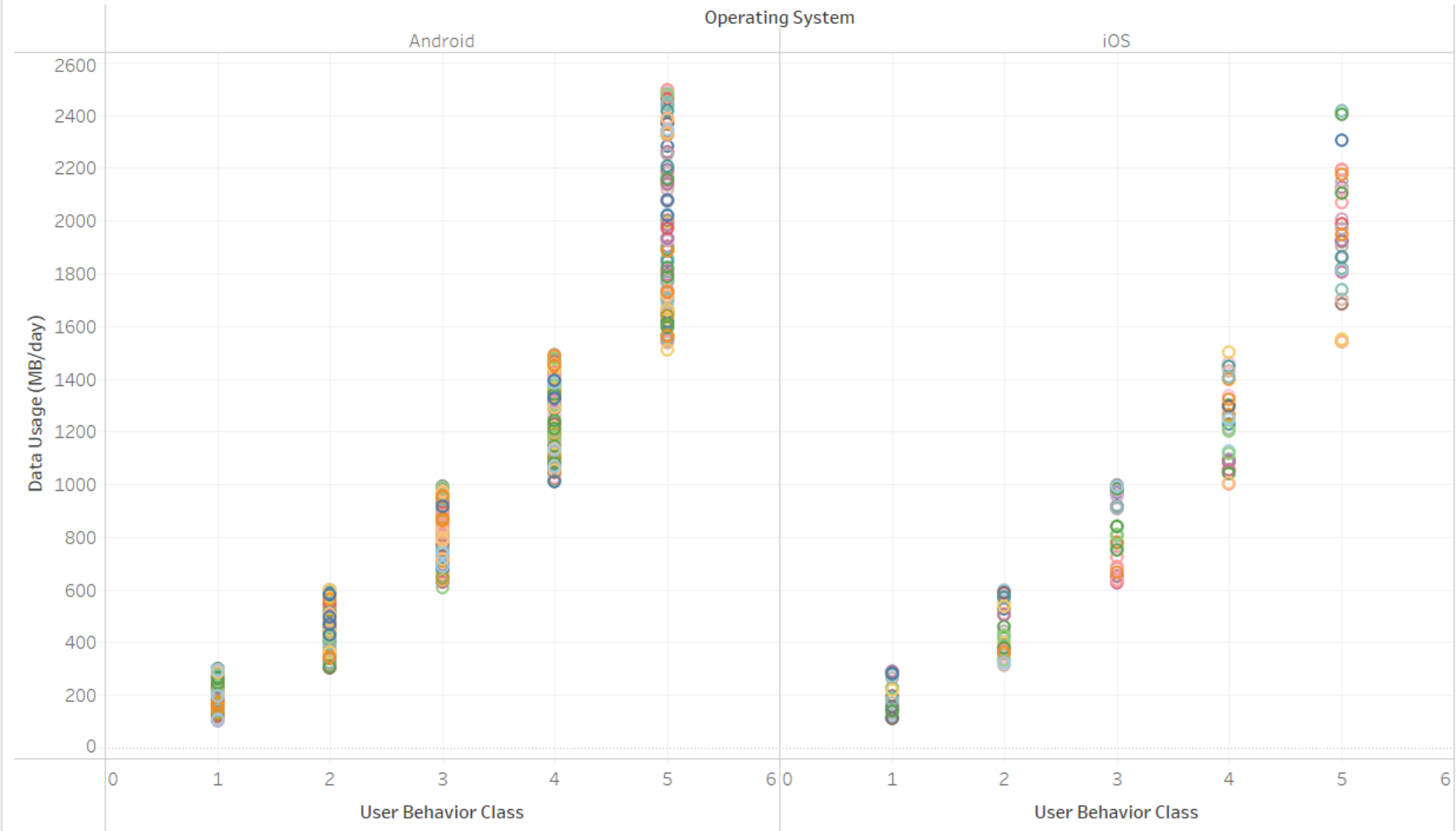
# DATA USAGE VS. BATTERY DRAIN





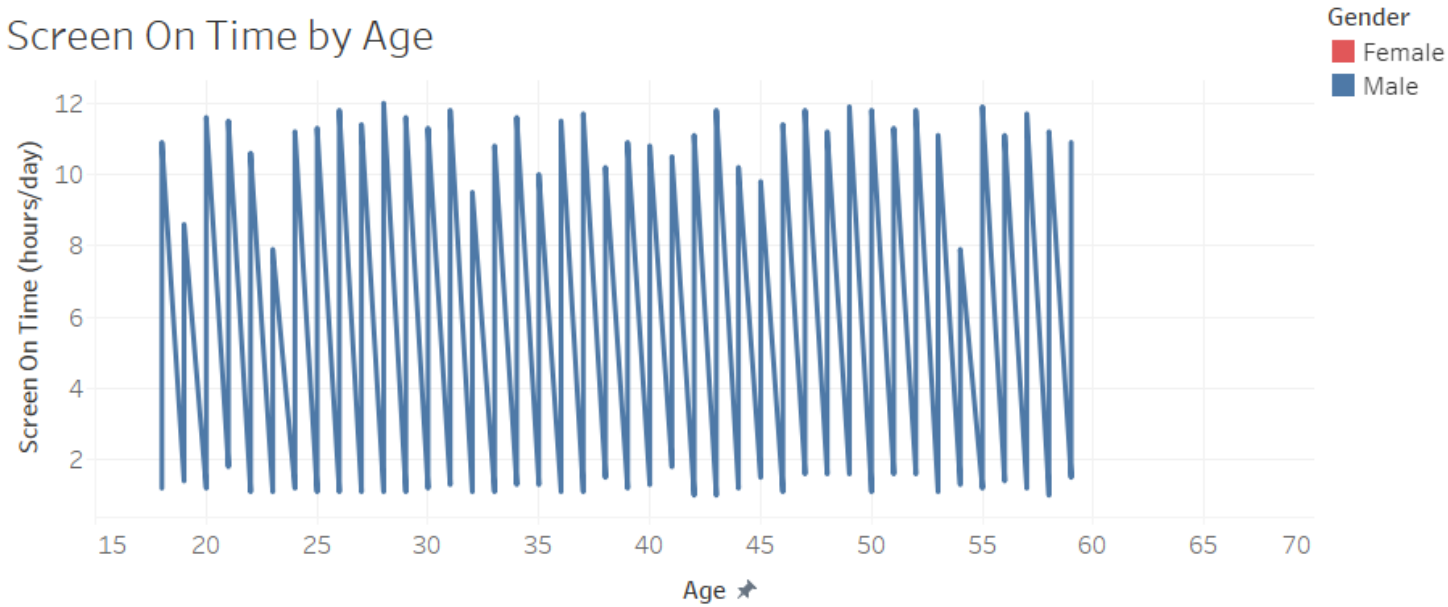
# USER BEHAVIOUR

User behavior classification across operating systems

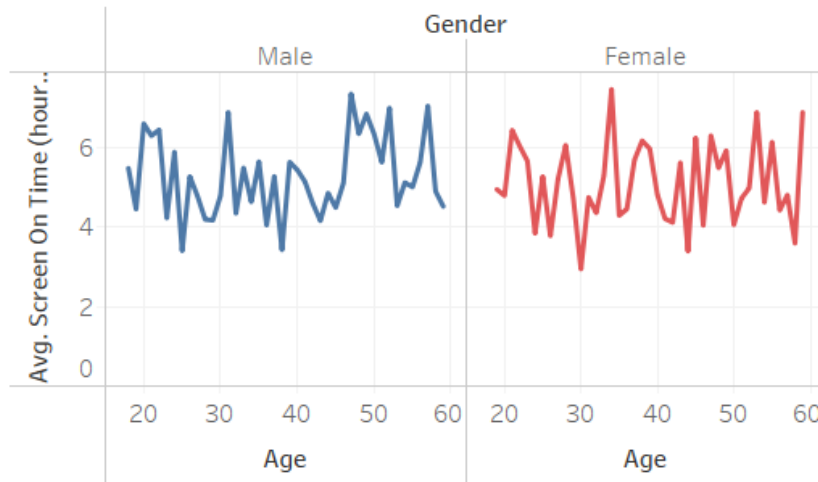


# SCREEN TIME ANALYTICS - DASHBOARD

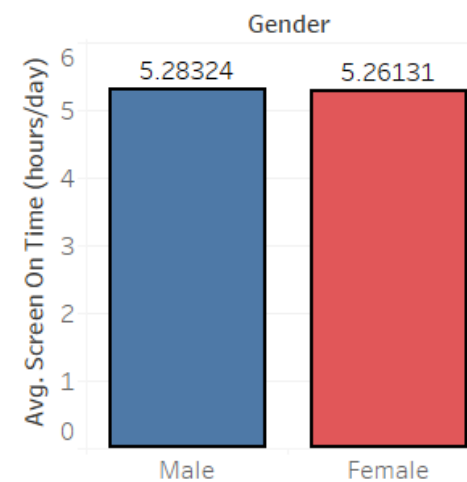
Screen On Time by Age



Screen On Time Avg. (hours/day) Vs. Gender (2)

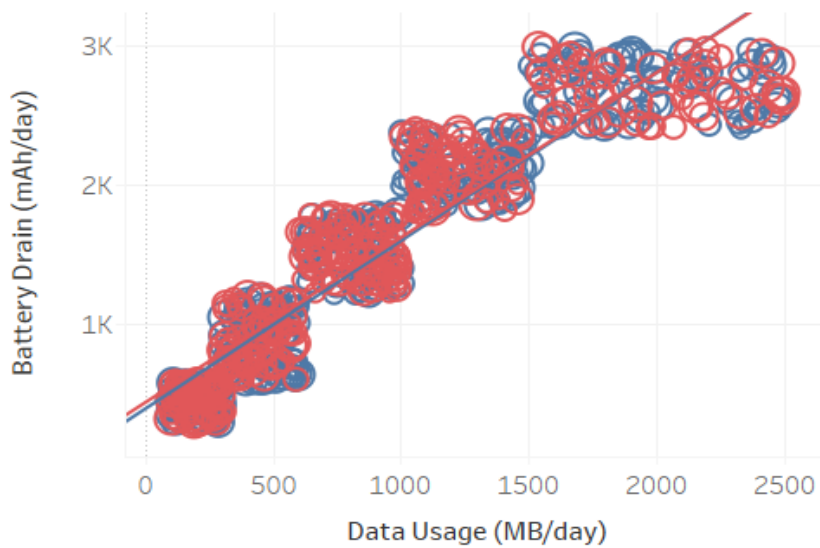


Screen On Time Avg. (hours/day) Vs. Gender

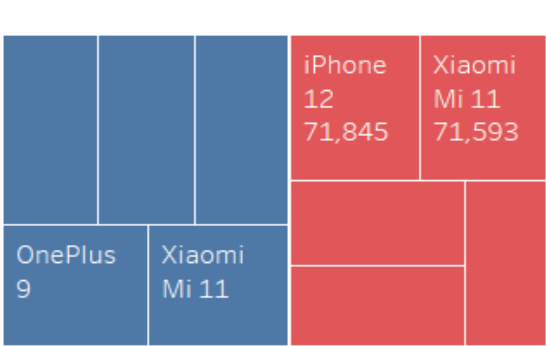


# DATA USAGE ANALYTICS - DASHBOARD

Data Usage vs. Battery Drain



Data Usage Vs. Device Model

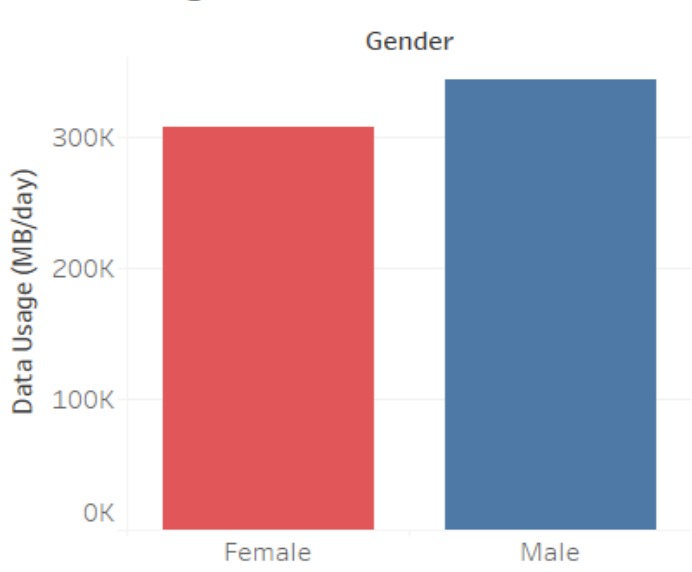


Gender  
Female  
Male

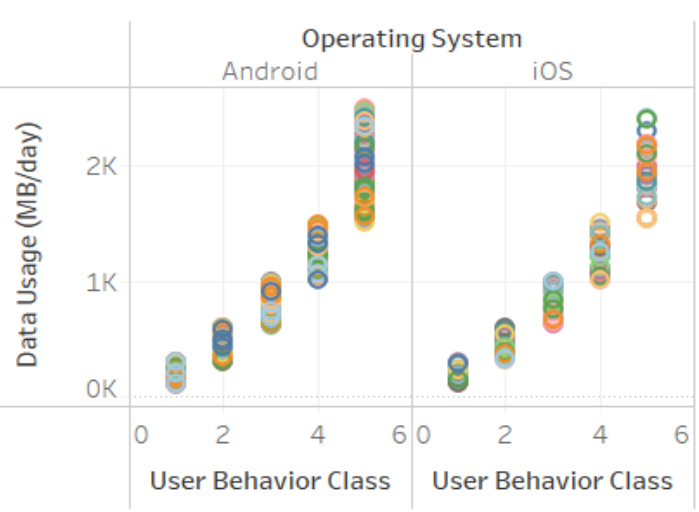
Age  
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Age  
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Data Usage Vs. Gender



User behavior classification across operating systems



The background is a dark, textured surface with a network of light-colored nodes and lines. The nodes are small circles of varying sizes, and the lines are thin, connecting the nodes in a complex, web-like pattern. The overall effect is a sense of connectivity and structure.

THANK YOU