



INNOVATION. AUTOMATION. ANALYTICS

## PROJECT ON

# Analyzing Tablet Prices Of Flipkart

## **ABOUT US**

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# **Problem Statement**

- Analysing Prices Of Tablets.
- The current tablets representation of pricing data presents with its complexities and limitations for businesses.
- The tabs provides insights into customer preferences and brand satisfaction , helping to discern which brands are more commonly associated.

# Introduction:

- Brief overview of the pricing of Tabs using Flipkart.
- Analysis of variation of price with respect to different features of Tabs.
- Finding the best Tabs that has most benefits.
- From this project , I am interested to provide good insights to choose better Tabs to smoothen life.



## Libraries Used:

- Regular Expressions
- Beautiful soup
- Numpy
- Pandas
- Matplotlib
- Seaborn



# Website URL's for Web-Scrapping :

<https://www.flipkart.com/search?q=Tablets&otracker=search&otracker1=search&marketplace=FLIPKART&as-show=on&as=off>

The screenshot displays the Flipkart website interface. The top navigation bar includes the Flipkart logo, a search bar with the word 'tablet' entered, and links for 'Akshitha', 'Become a Seller', 'More', and 'Cart'. Below the navigation bar, there are category tabs: Electronics, TVs & Appliances, Men, Women, Baby & Kids, Home & Furniture, Sports, Books & More, Flights, and Offer Zone. The main content area shows search results for 'tablet'. It includes a banner for the 'Go Smart M10 FHD Plus' tablet, a list of filters (Categories, Price), and two product listings. The first product is the 'realme Pad 2 6 GB RAM 128 GB ROM 11.5 inch with Wi-Fi+4G Tablet (Grey)' priced at ₹19,999. The second product is the 'realme Pad Mini 6 GB RAM 128 GB ROM 8.7 inch with Wi-Fi+4G Tablet (Grey)' priced at ₹14,999. Both products have their respective ratings and reviews displayed.

Flipkart  
Explore Plus

tablet

Akshitha Become a Seller More Cart

Electronics TVs & Appliances Men Women Baby & Kids Home & Furniture Sports, Books & More Flights Offer Zone

Home > Mobiles & Accessories > Tablets

Showing 1 – 24 of 1,159 results for "tablet"

Sort By Relevance Popularity Price – Low to High Price – High to Low Newest First

**realme Pad 2 6 GB RAM 128 GB ROM 11.5 inch with Wi-Fi+4G Tablet (Grey)**  
4.5 ★ 2,358 Ratings & 284 Reviews  
₹19,999 ~~₹28,999~~ 31% off **Assured**

- 2K Display with up to 120Hz screen refresh rate
- 33W SUPERVOOC Charger in-the-box MediaTek Helio G99 Chipset
- realme UI 4.0 for Pad Dolby Atmos Quad Speaker with Hi-Res Certification
- 8MP HD Camera
- Ultra-slim Metallic Body Design
- 6 GB RAM | 128 GB ROM | Expandable Upto 2 TB
- 29.21 cm (11.5 inch) Full HD Display
- 8 MP Primary Camera | 5 MP Front
- Android 13 | Battery: 8360 mAh Lithium Ion
- Ideal Usage: Entertainment
- Voice Call (Single Sim, 4G LTE TDD|4G LTE FDD|WCDMA|GSM)
- Processor: Mediatek G99
- 1 Year Domestic Warranty

**realme Pad Mini 6 GB RAM 128 GB ROM 8.7 inch with Wi-Fi+4G Tablet (Grey)**  
4.3 ★ 14,093 Ratings & 1,203 Reviews  
₹14,999 ~~₹25,999~~ 42% off **Assured**  
Free delivery by **Today**

**Filters**

CATEGORIES

< Mobiles & Accessories

▼ Tablets

Tablets with Call Facility

Tablets without Call Fa...

PRICE

Min to ₹20000+

## Raw data from website :

	Brand	Color	Ram	Rom	Screen_size	Battery	Megapixel	Rating	price
0	MOTOROLA	Modernist Teal	6.0	128	11.00	7700.0	13	4.3	₹22,990
1	SAMSUNG	Silver	3.0	32	8.70	5100.0	8	4.3	₹11,999
2	SAMSUNG	Blue	4.0	128	10.40	7040.0	8	4.5	₹31,999
3	Lenovo	Abyss Blue	4.0	128	10.61	7700.0	13	4.2	₹24,490
4	SAMSUNG	Beige	12.0	256	14.60	10090.0	13	NaN	₹1,08,999
...	...	...	...	...	...	...	...	...	...
175	APPLE	Silver	NaN	128	11.00	NaN	12	4.6	₹79,900
176	Lenovo	NaN	4.0	128	10.30	5000.0	8	4.3	₹15,999
177	SAMSUNG	Silver	6.0	128	12.40	10090.0	8	4.5	₹49,999
178	APPLE	Space Grey	NaN	256	10.90	NaN	12	4.6	₹81,400
179	MOTOROLA	Frost Blue	4.0	64	10.61	7700.0	8	4.1	₹16,490

**Total:** 480 rows × 9 columns of Raw Data



# DATA CLEANING

- 1) Handling Missing Values
- 2) Removing Duplicate Values
- 3) Outlier Treatment
- 4) Data Analysis

## Cleaned Data Frame:

	brand	Color	Ram	ROM	Screen_size	Battery	Megapixel	Rating	price
0	MOTOROLA	Modernist Teal	6	128	11	7700	13	4	22990
1	SAMSUNG	Silver	3	32	8	5100	8	4	11999
2	SAMSUNG	Blue	4	128	10	7040	8	4	31999
3	Lenovo	Abyss Blue	4	128	10	7700	13	4	24490
4	SAMSUNG	Beige	12	256	14	10090	13	4	108999
...	...	...	...	...	...	...	...	...	...
75	APPLE	Silver	4	128	11	10090	12	4	79900
76	Lenovo	Silver	4	128	10	5000	8	4	15999
77	SAMSUNG	Silver	6	128	12	10090	8	4	49999
78	APPLE	Space Grey	4	256	10	10090	12	4	81400
79	MOTOROLA	Frost Blue	4	64	10	7700	8	4	16490

# Features that Impact Tab Prices:



1

**Ram**

Higher the Ram, higher the price

2

**Battery**

Longer battery , higher the price.

3

**Color**

Higher the price, according to different colors.

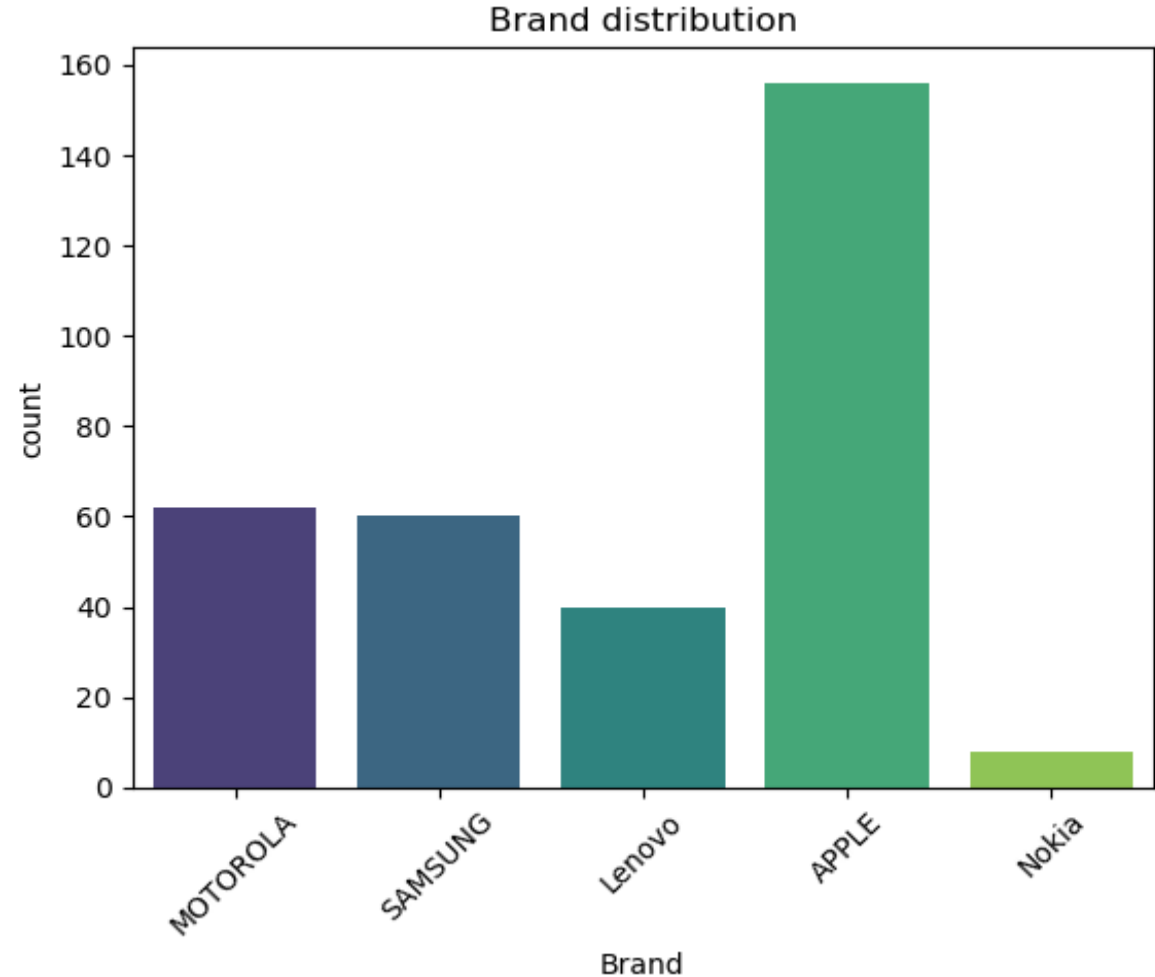
# EXPLORATORY DATA ANALYSIS(EDA)

Exploratory Data Analysis is majorly performed using the following methods:

- **Univariate analysis:-** It provides summary for each field in the raw data set (or) summary only on one variable.
- **Bivariate analysis:-** It is performed to find the relationship between each variable in the dataset and the target variable of interest (or) using 2 variables and finding the relationship between them
- **Multivariate analysis:-** It is performed to understand interactions between different fields in the dataset (or) finding interactions between variables more than 2..

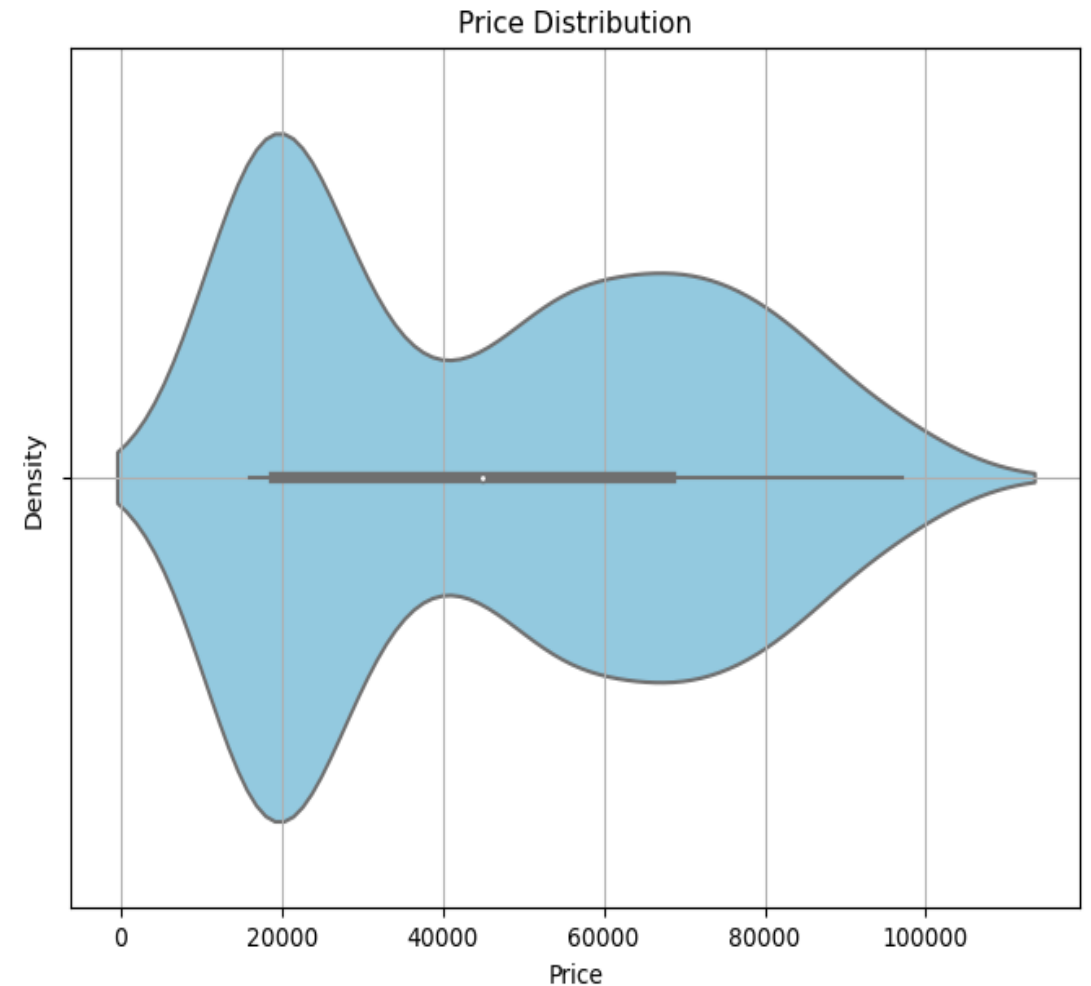
# Univariate: Brand count plot

- The count plot is useful for understanding the frequency or count of each category in the dataset, providing a quick overview of the distribution.
- Brand Count Plot represent the no of brands in the tablets.
- No .of count of the tabs available in each brand.
- Apple and Motorola is the leading company having huge variety of products.



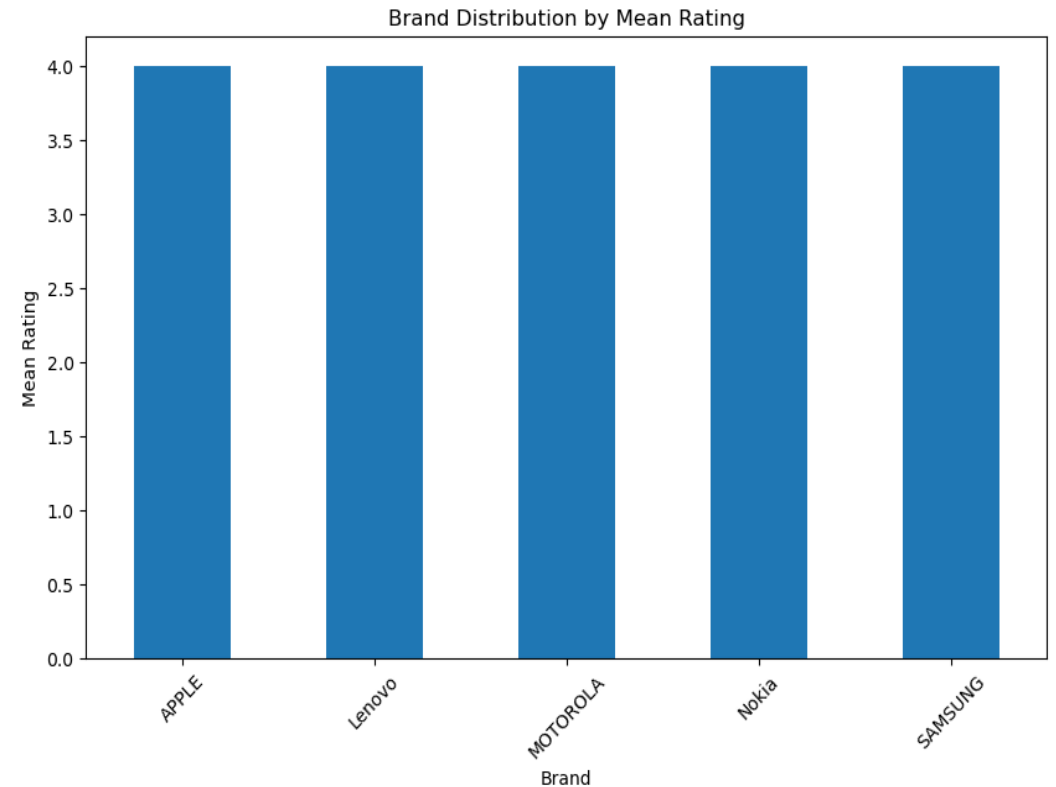
# Univariate : Price Distribution

- Violin plots are useful for showing the distribution of data, including information about central tendency and density.
- The plot is to provide a visual representation of the distribution of tablet prices using a violin plot.
- This plot helps to understand the spread of prices and identify potential patterns or clusters in the dataset.
- From this, I have analysed that , the distribution of prices are more around 20000.



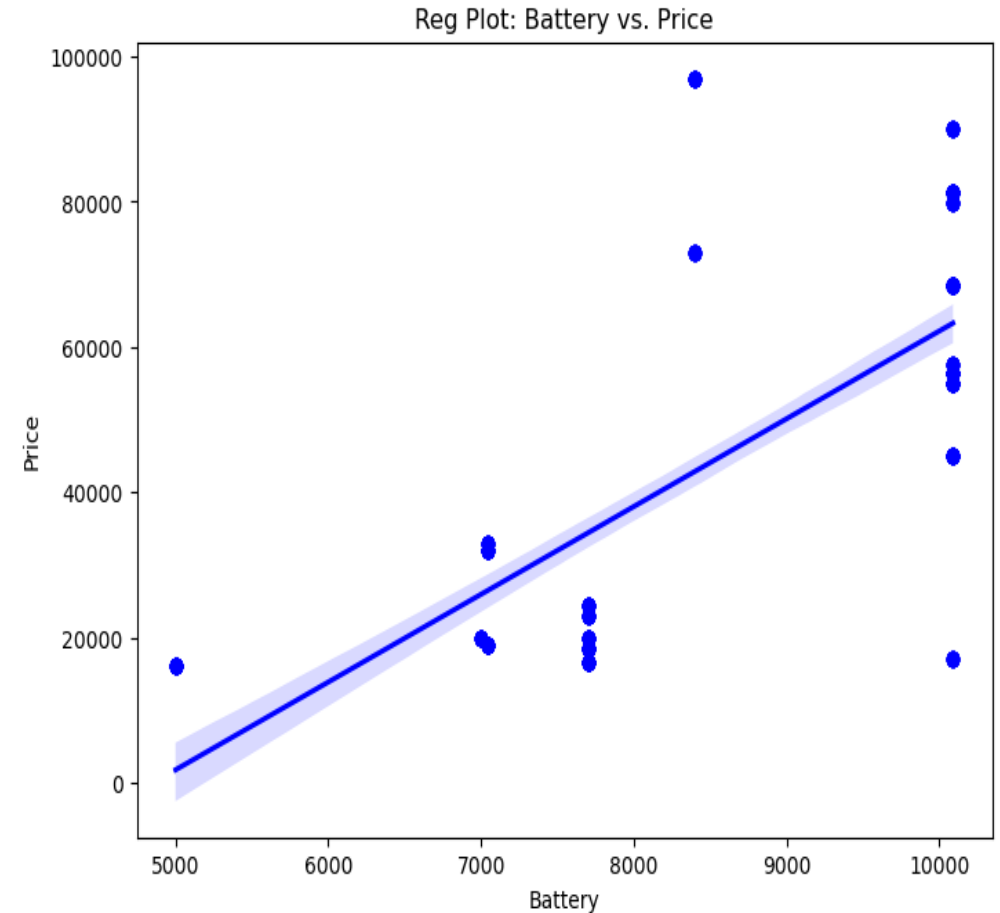
# Bivariate: Brands with 5-star rating

- The plot provides insights into which brands have a higher frequency of top ratings in the dataset.
- The code aims to visualize the distribution of 5-star ratings among different brands using a count plot.
- Getting brands of 5 star rating.
- 5 Star Tabs is more suggestible because it consumes more count compared to other ones.
- Apple and Motorola products are having more rating.



# Bivariate : Battery vs Price

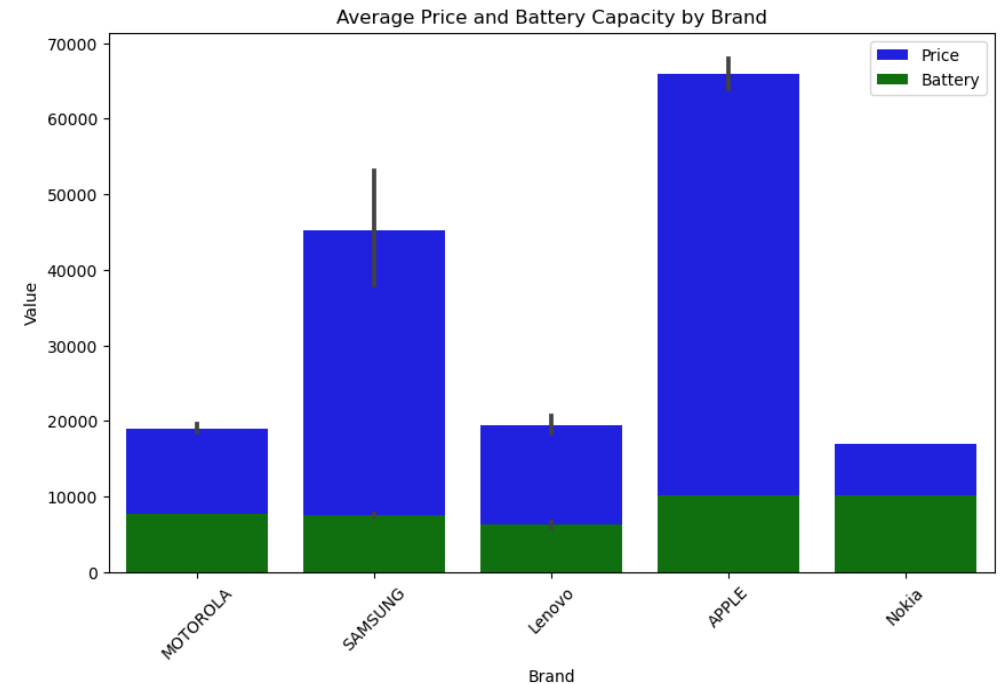
- It is a continuous and continuous bivariate plot
- It visually represent the linear relationship between the 'Battery' and 'Price' columns using a regression plot.
- The plot provides insights into how changes in the battery capacity may be associated with changes in the price of tablets.
- The distribution of batteries are more around 20000.





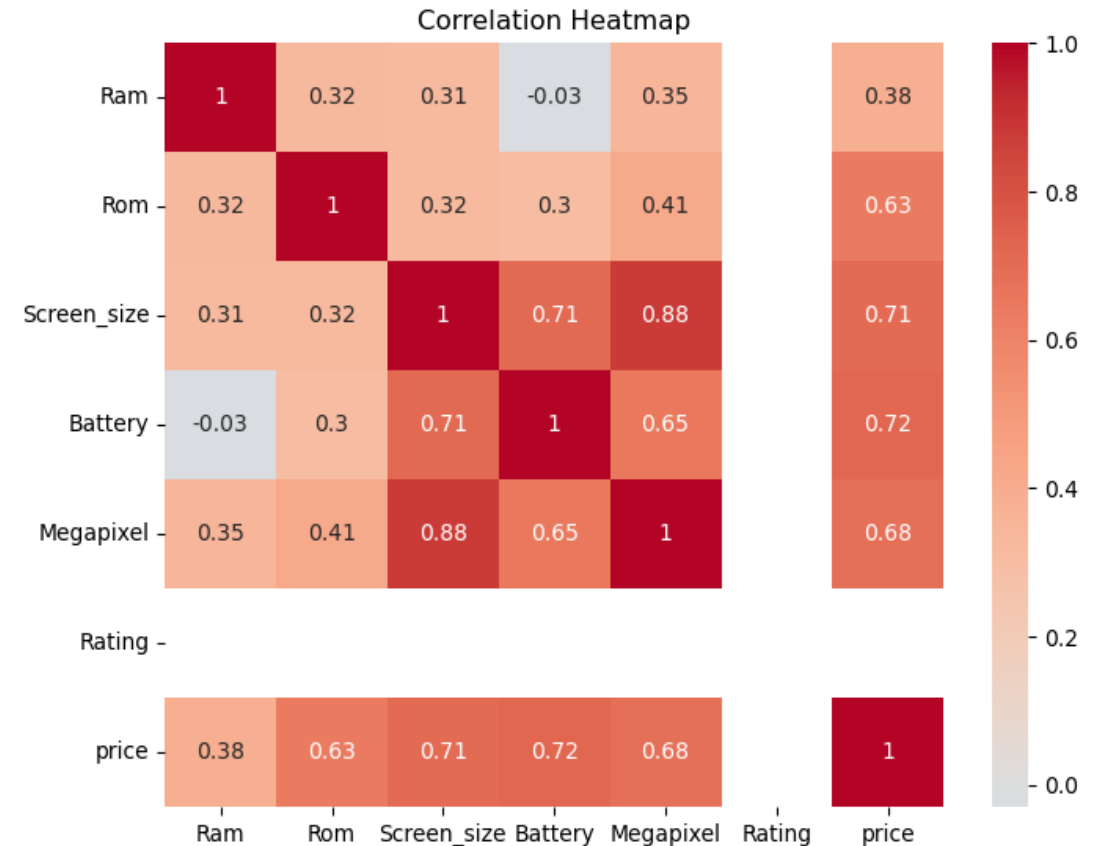
# Multivariate : Price and Battery capacity

- It visualizing to compare the average price and battery capacity of different brands using a grouped bar plot. This type of plot allows for easy comparison of two numerical values across different categories.
- Average Price and Battery by Brand.
- Most of the products are in range between 10K to 65K.
- Apple is the most suitable one to buy.



# Relationship

- The plot provides a visual representation of the correlation structure among numerical columns in the dataset.
- The correlation heatmap helps identify patterns and strengths of relationships between variables.
- The Battery and Ram shows there is no strong relationship between them.
- The Rating has no correlation.
- There is strong relationship between itself features.



# Conclusion:

- Most selling products are in 10K to 65K.
- Most preferable battery brands are Apple and Motorola.
- 5-Star products are more recommended for new users.
- Most trusted company is Apple and Motorola Product.
- We can infer the most suitable brand is Apple and the second brand is Motorola, according to price distribution of the most common features Ram ,Battery and Ratings.



**THANK YOU!**

