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INNOVATION. AUTOMATION. ANALYTICS

PROJECT ON

Analyzing Tablet Prices Of Flipkart

ABOUT US

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Contents:

Problem Statement

- Analysing Prices Of Tablets.

- The current tabular 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

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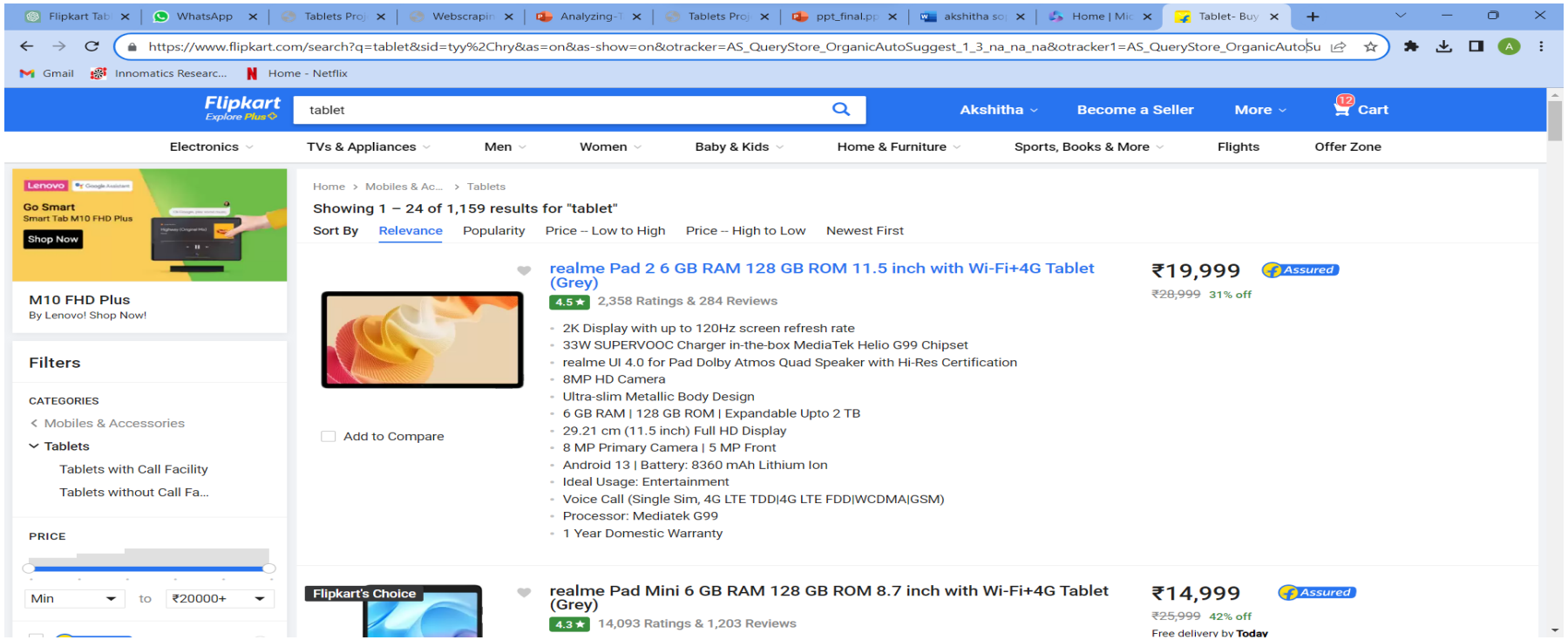
Website URL's for Web-Scrapping :

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



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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
...	...	...	...	...	...	...	...	...	...
475	APPLE	Silver	NaN	128	11.00	NaN	12	4.6	₹79,900
476	Lenovo	NaN	4.0	128	10.30	5000.0	8	4.3	₹15,999
477	SAMSUNG	Silver	6.0	128	12.40	10090.0	8	4.5	₹49,999
478	APPLE	Space Grey	NaN	256	10.90	NaN	12	4.6	₹81,400
479	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.

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EXPLORATORY DATA ANALYSIS(EDA)

Exploratory Data Analysis is majorly performed using the following methods:

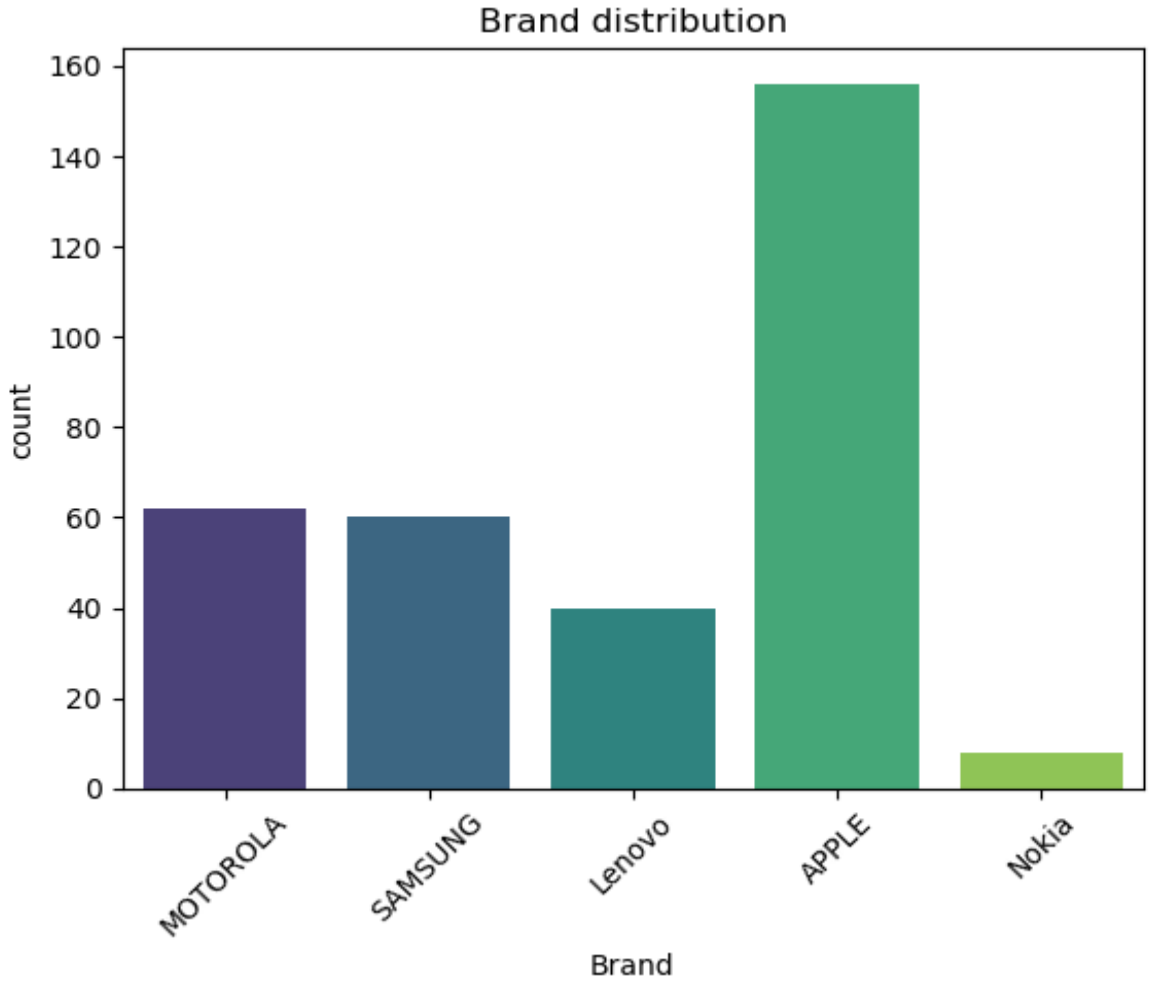
- **Univariate analysis**:- It provides summary for each field in the raw data set (or) summary only on one variable.

- **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..

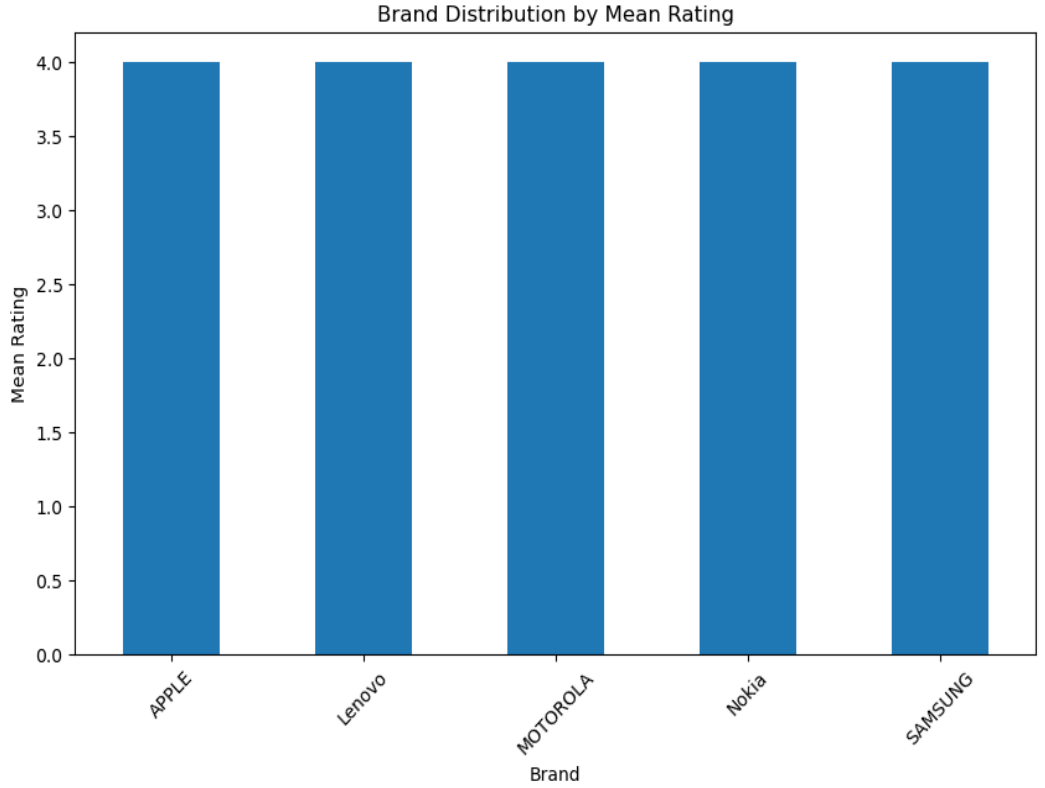
Univariate: Brand count plot

- 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.



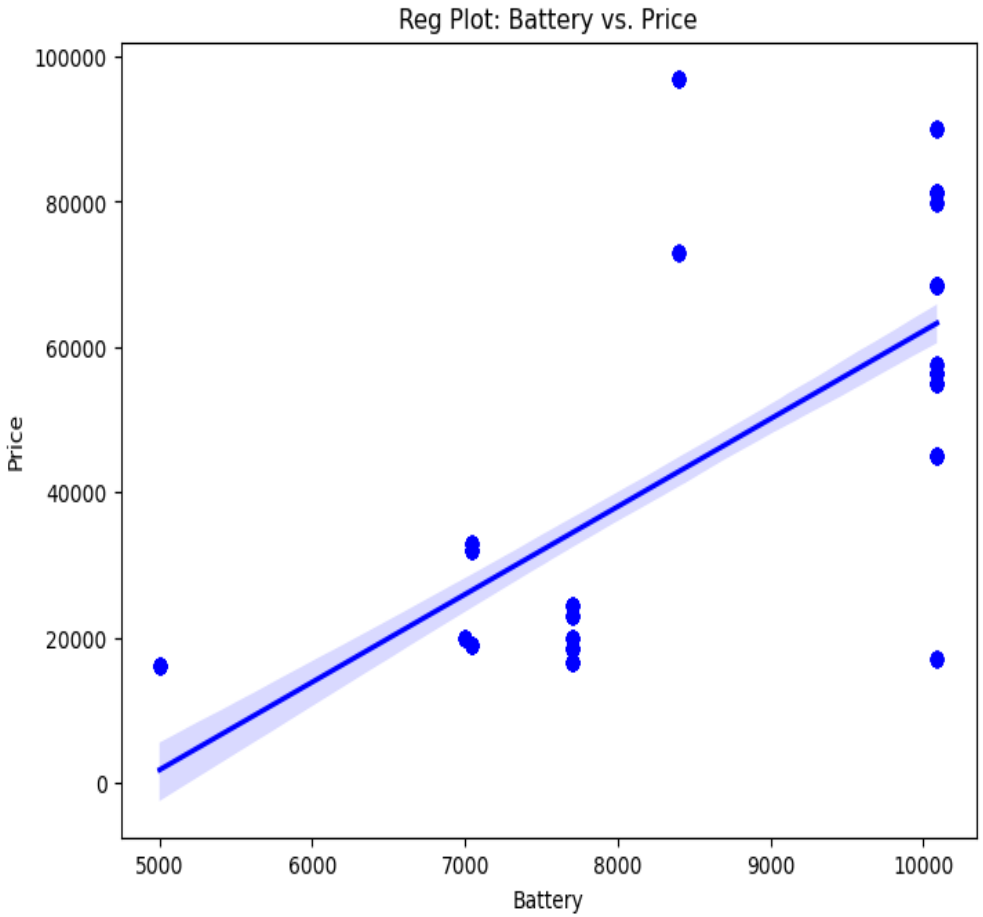
Bivariate: Brands with 5-star rating

- 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.



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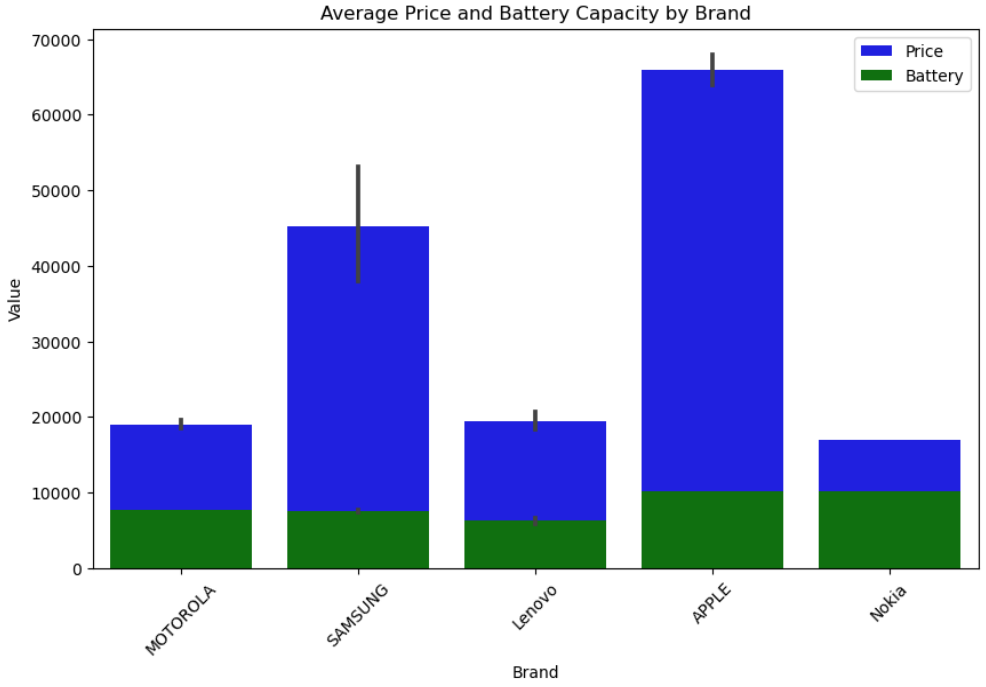
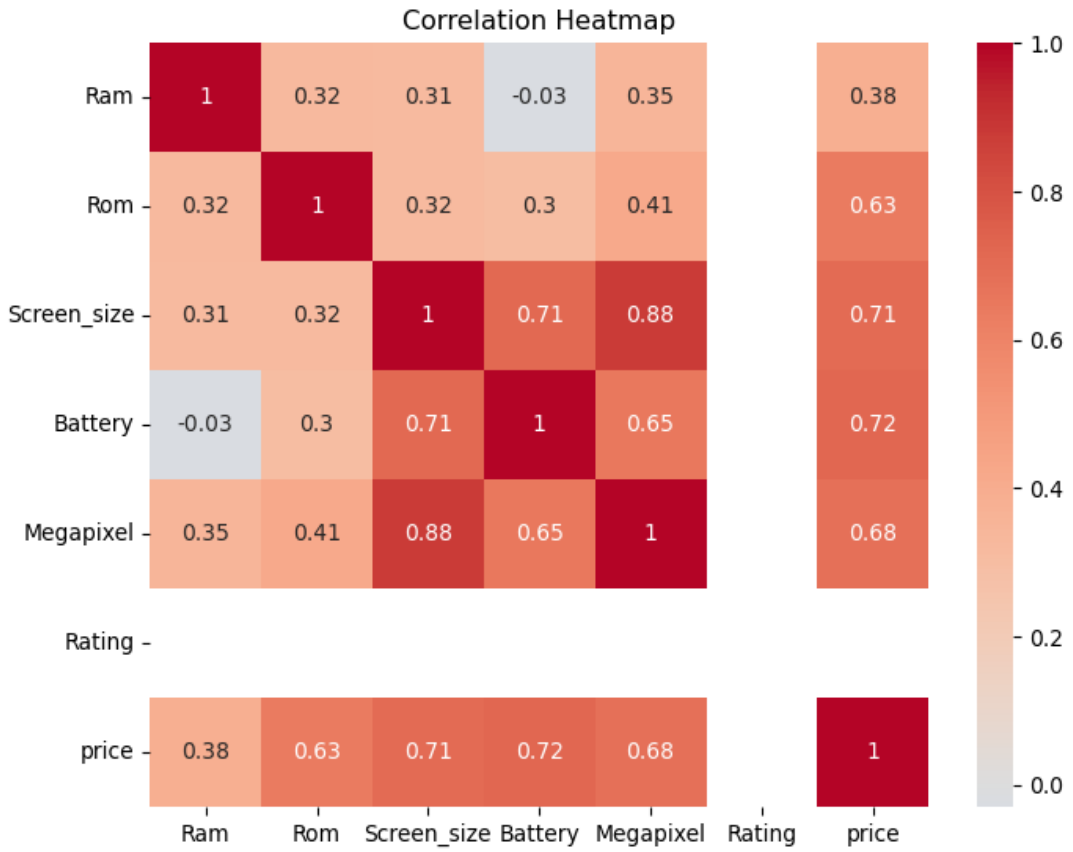
Multivariate : Price and Battery capacity

- 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.



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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!

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