INNOMATICS
RESEARCH LABS

Flipkart

Project on

FLIPKART'S AIR CONDITIONER DATA ANALYSIS

INNOMATICS RESEARCH LABS

Presented by:

Name: Shaik Siraj
Qualification: B.S.C(cs)
Any work Experience: Fresher

I want to learn Data Science for skills and career Transition

It has great job opportunities.

Name: G.Pramod Reddy
Qualification: B.S.C(cs)
Any work Experience: Fresher

I want to learn Data Science for skills and career Transition

It has great job opportunities.

INNOMATICS RESEARCH LABS

PROBLEM STATEMENT:

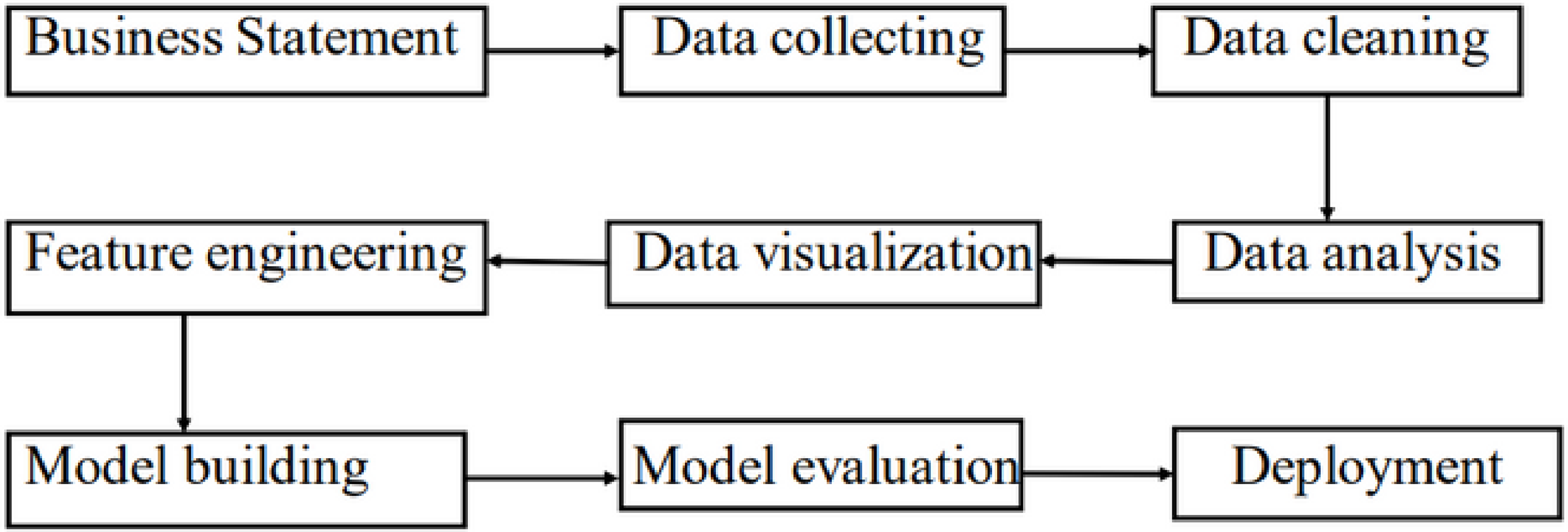
- People are interested in buying air conditioners but it can be difficult to find the right one. There are many different brands and models available, and it can be hard to compare them.

OBJECTIVE OF THE PROJECT:

- To identify the most popular air conditioners on Flipkart
- To analyse the average prices of air conditioners.
- To analyse the Rating by Brands
- To identify the most popular rated brands of air conditioners.

INNOMATICS RESEARCH LABS

Life Cycle of Data Science:



INNOMATICS RESEARCH LABS

WEB SCRAPPING:

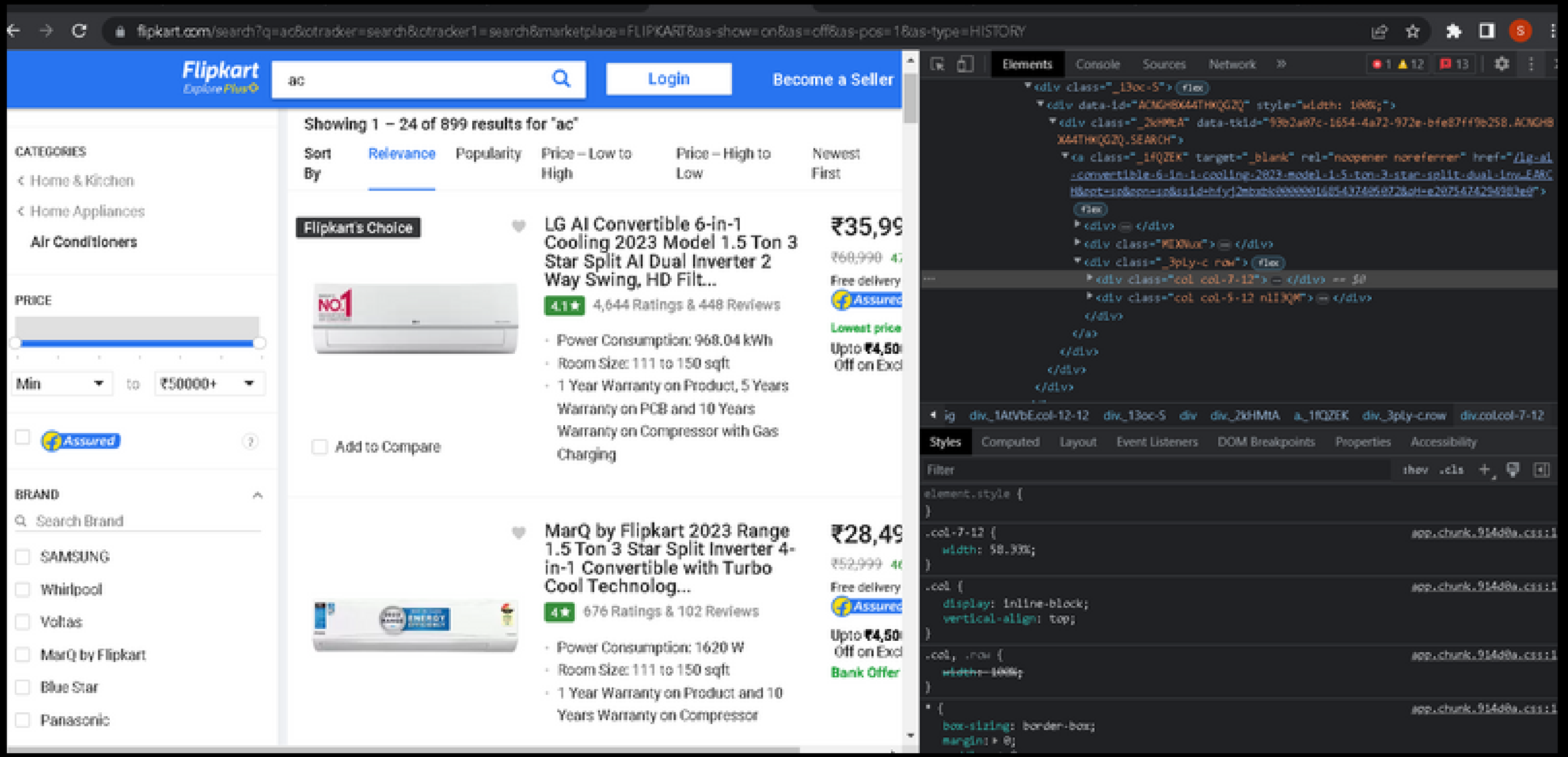
Web scraping is the process of extracting specific data from the Website automatically.

STEPS:

- We have selected Flipkart Website for our web scraping project.
- Request to the website
  page = requests.get('https://www.flipkart.com/')
- Import Beautiful Soup and all the necessary libraries for scraping data.
- Extracted useful information that i need like
  (Brand, Warranty_Years, Price, Rating) data
- Check length’s of all columns and create the Data Frame.
- Exported into .csv format

INNOMATICS RESEARCH LABS

WEBSITE



INNOMATICS RESEARCH LABS

Softwares used:

- jupyter Notebook

Programming Language Used :

- python programming language

Libraries Used

- Numpy
- Pandas
- Beautiful Soup
- requests
- matplotlib
- seaborn

INNOMATICS RESEARCH LABS

Data Cleaning Steps:

- Checking and removing special characters.
- Identifying and inputing missing values.
- Changing the data types(Type Conversion)

INNOMATICS
RESEARCH LABS

Data Frame Before Cleaning

	Brand	Model	Power_Consumption_kWh	Room_Size_sqft	Warranty_Years	Price	Rating	Ton
0	Blue	Blue Star Convertible 5 in 1 Cooling 2023 Mode...	1002.0	111.0	1.0	₹35,490	4.2	1.5
1	Blue	Blue Star 2023 Model 0.8 Ton 3 Star Split Inve...	521.0	90.0	1.0	₹27,999	4.2	0.8
2	MarQ	MarQ by Flipkart 2023 Range 1.5 Ton 3 Star Spl...	1620.0	111.0	1.0	₹28,499	4.0	1.5
3	Whirlpool	Whirlpool Convertible 4	963.0	111.0	1.0	₹31,990	3.9	1.5
4	Lloyd	Lloyd 1.5 Ton 3 Star Split Inverter AC	1002.0	111.0	1.0	₹32,990	4.3	1.5
...	...	...	...	...	...	...	...	...
408	LG	LG 1.5 Ton 3 Star Window Dual Inverter AC with Wi	624.0	111.0	NaN	₹53,899	3.9	1.5
409	Panasonic	Panasonic 1.5 Ton 3 Star Split Inverter AC	NaN	151.0	NaN	₹35,739	NaN	1.5
410	Daikin	Daikin 1.8 Ton 3 Star Hot and Cold Split Inver...	NaN	111.0	NaN	₹30,999	4.2	1.8
411	Haier	Haier Top Flow 1.5 Ton 3 Star Window Jet Air F...	NaN	90.0	NaN	NaN	NaN	1.5
412	SAMSUNG	SAMSUNG Convertible 5	NaN	NaN	NaN	NaN	4.0	1.0

413 rows × 8 columns

INNOMATICS RESEARCH LABS

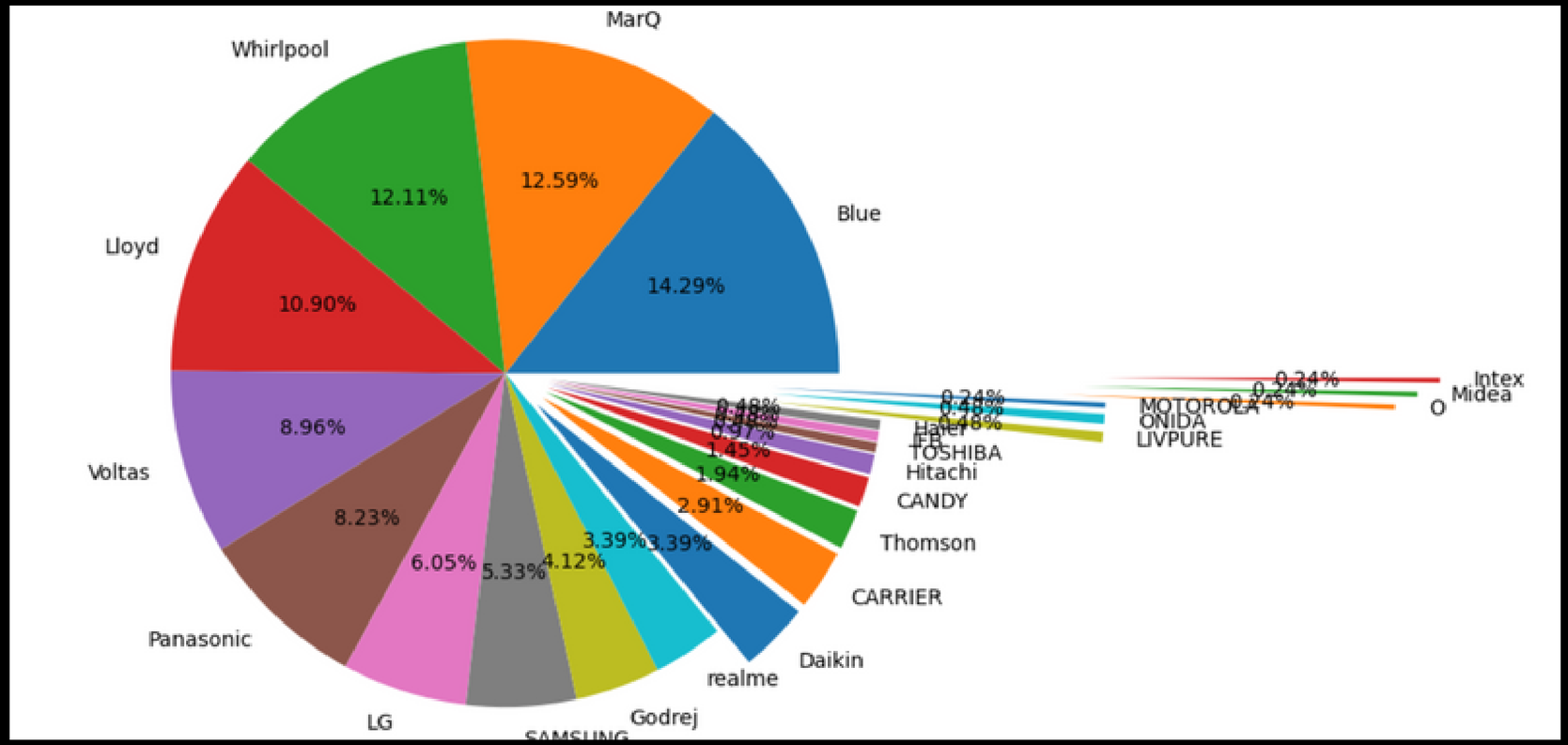
Data Frame After Cleaning

	Brand	Model	Power_Consumption_kWh	Room_Size_sqft	Warranty_Years	Price	Rating	Ton
0	Blue	Blue Star Convertible 5 in 1 Cooling 2023 Mode...	1002.00	111.0	1.0	35490	4.2	1.5
1	Blue	Blue Star 2023 Model 0.8 Ton 3 Star Split Inve...	521.00	90.0	1.0	27999	4.2	0.8
4	Lloyd	Lloyd 1.5 Ton 3 Star Split Inverter AC	1002.00	111.0	1.0	32990	4.3	1.5
5	Voltas	Voltas 1.5 Ton 5 Star Split Inverter AC	751.00	111.0	1.0	38999	4.2	1.5
6	Panasonic	Panasonic Convertible 7	1002.00	111.0	1.0	36490	4.3	1.5
...	...	...	...	...	...	...	...	...
403	Blue	Blue Star 1 Ton 3 Star Split Inverter AC	1450.00	90.0	1.0	34500	4.4	1.0
404	Lloyd	Lloyd 0.8 Ton 3 Star Split Inverter AC	1115.00	111.0	1.0	26999	4.2	0.8
405	Godrej	Godrej 1.5 Ton 3 Star Split Inverter AC	1695.00	111.0	1.0	37990	4.2	1.5
407	Blue	Blue Star 1.5 Ton 3 Star Split AC	1192.00	111.0	1.0	33990	4.4	1.5
410	Daikin	Daikin 1.8 Ton 3 Star Hot and Cold Split Inver...	1103.39	111.0	1.0	30999	4.2	1.8

INNOMATICS
RESEARCH LABS

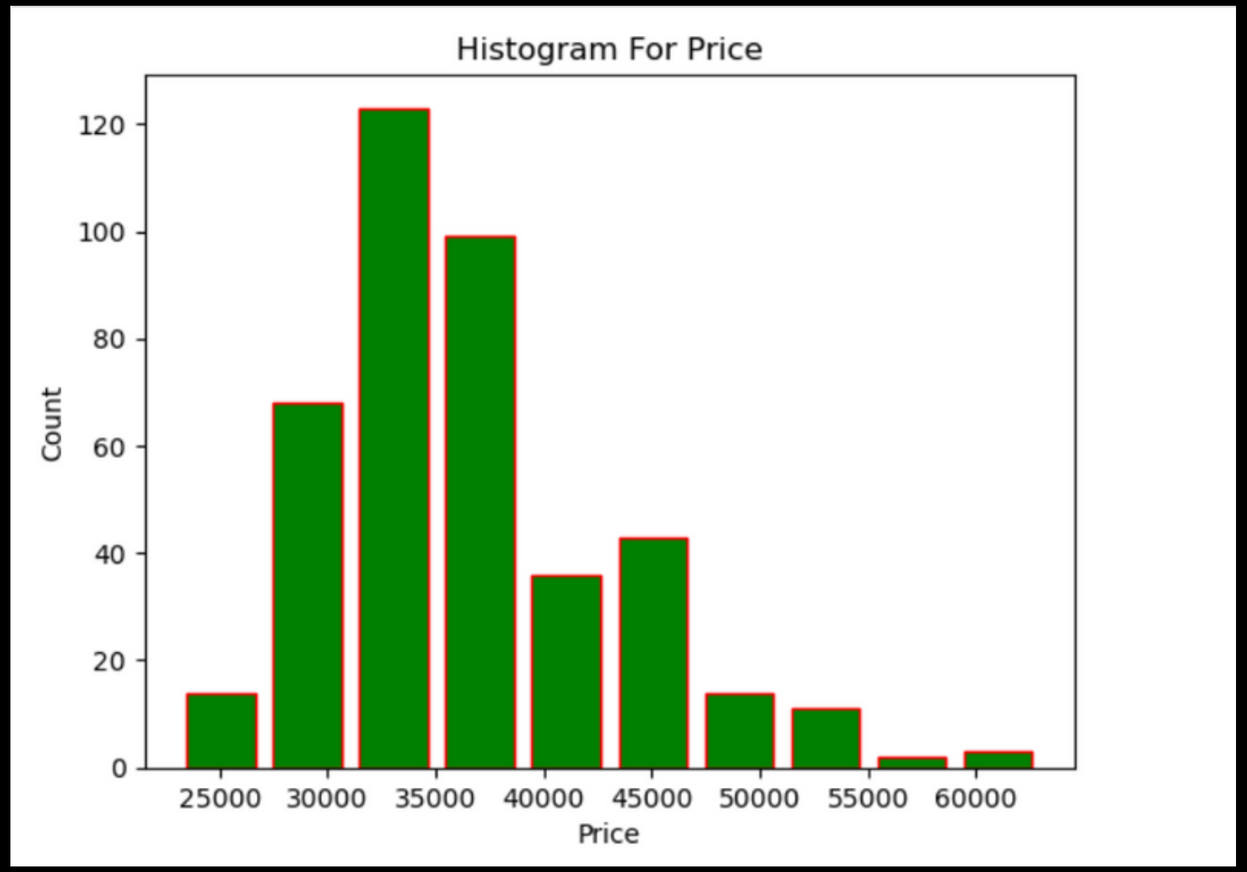
VISUALIZATION

Pie chart on Which brand has how much percentage.



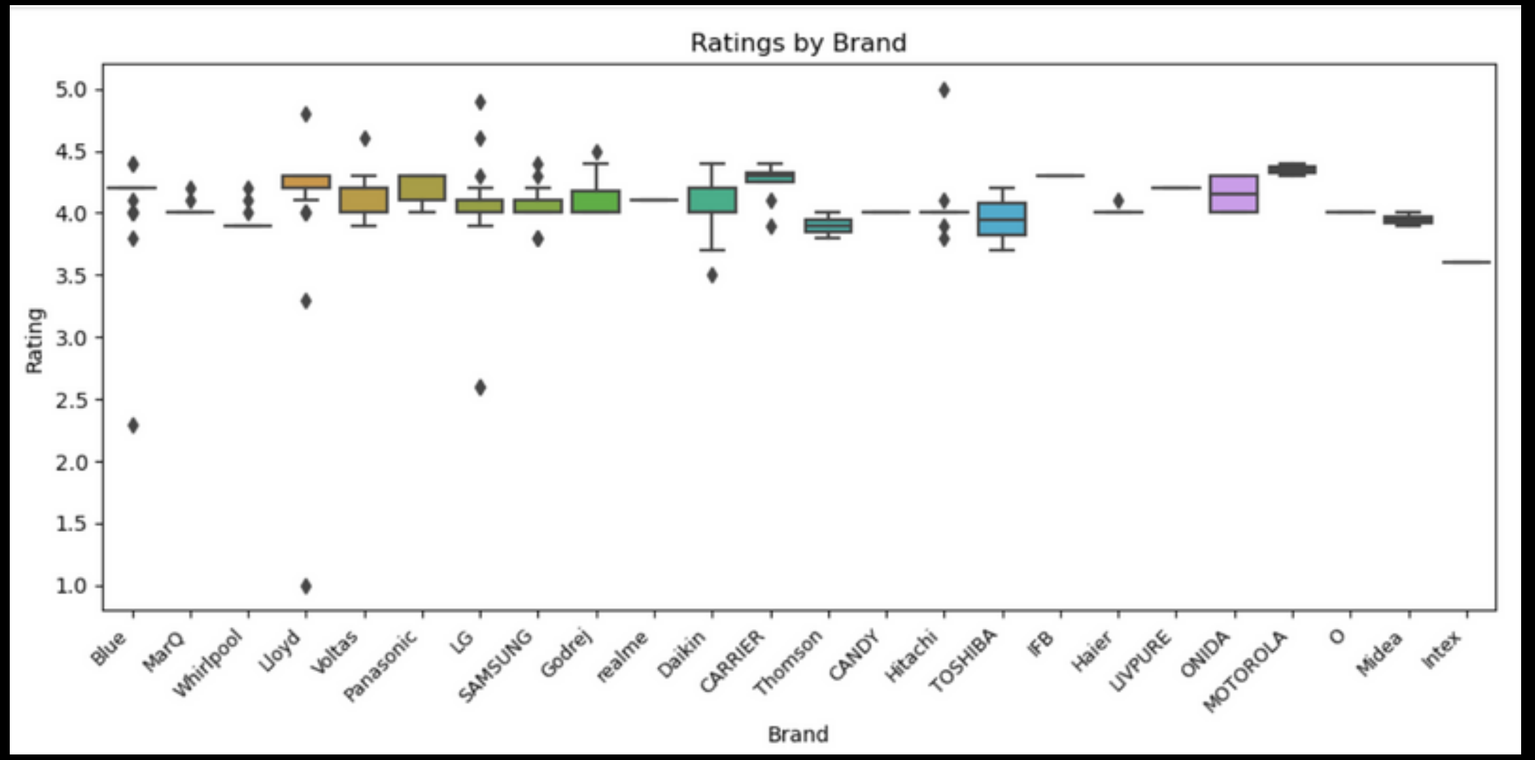
Observation : From the pie chart, we conclude there are 24 unique brands and the Blue (Brand) has highest percentage among the all brands.

Histogram for price



Observation : From the Histogram, we conclude that the average price of an ait conditioner is around 35,000

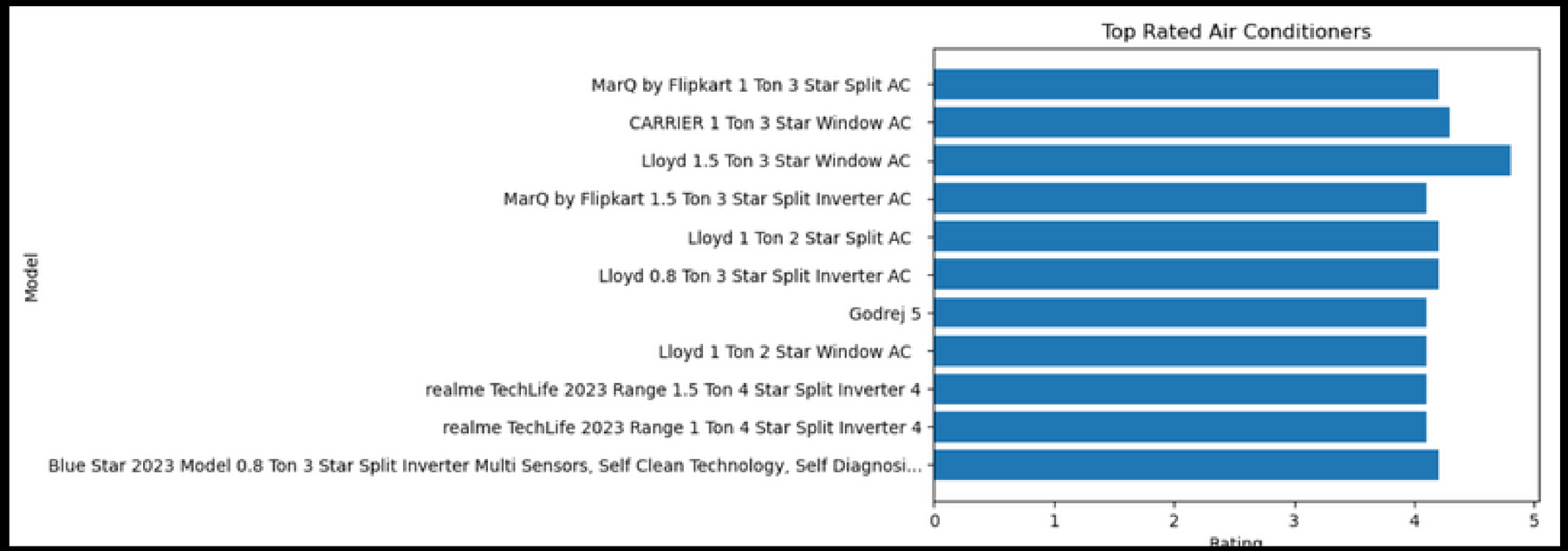
Air Conditioner Ratings by Brand



Observation :

1. **Godrej is the most popular brand of air conditioner, with an average rating of 4.2 out of 5.**

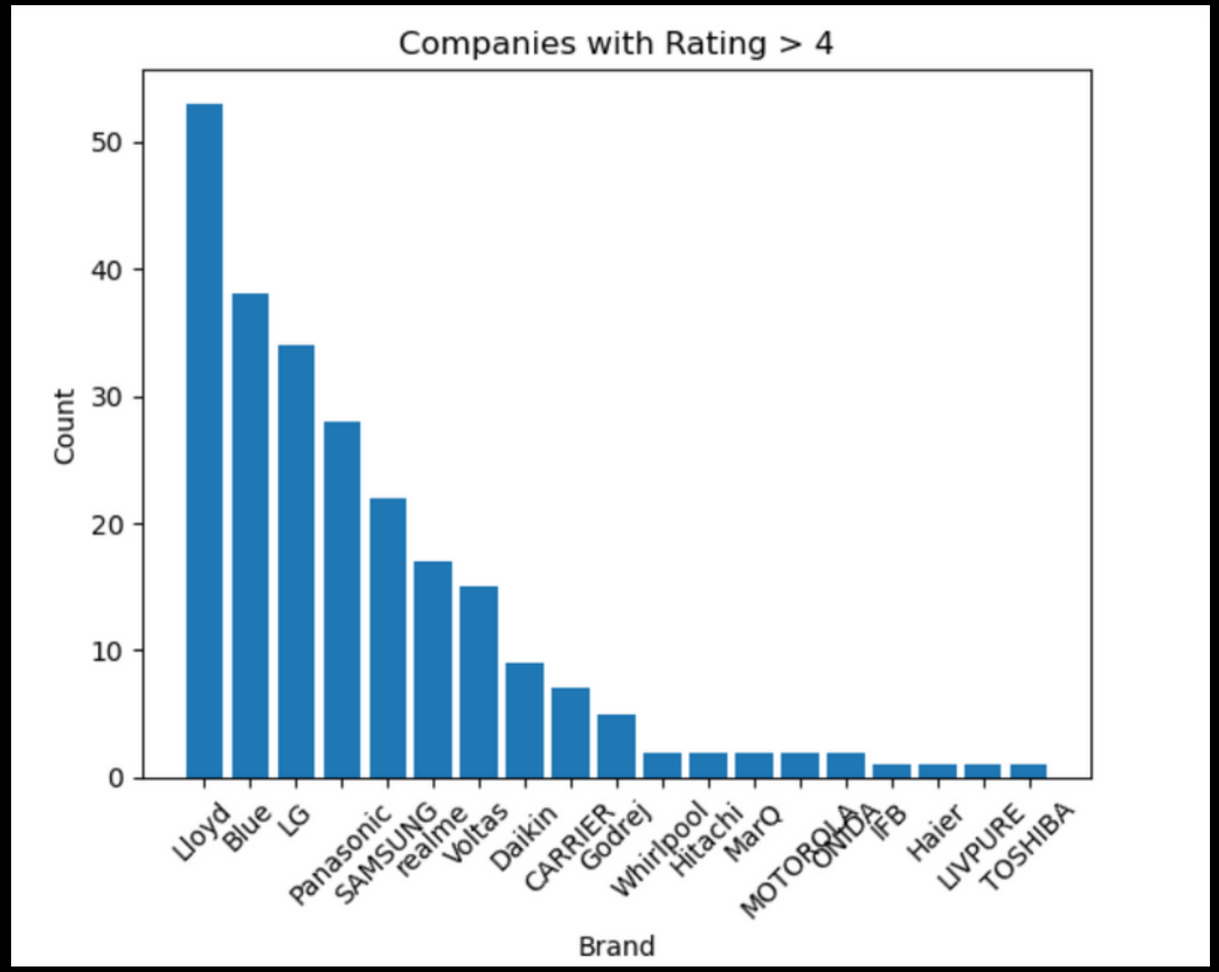
Top Rated Air Conditioner below 30k



Observation :

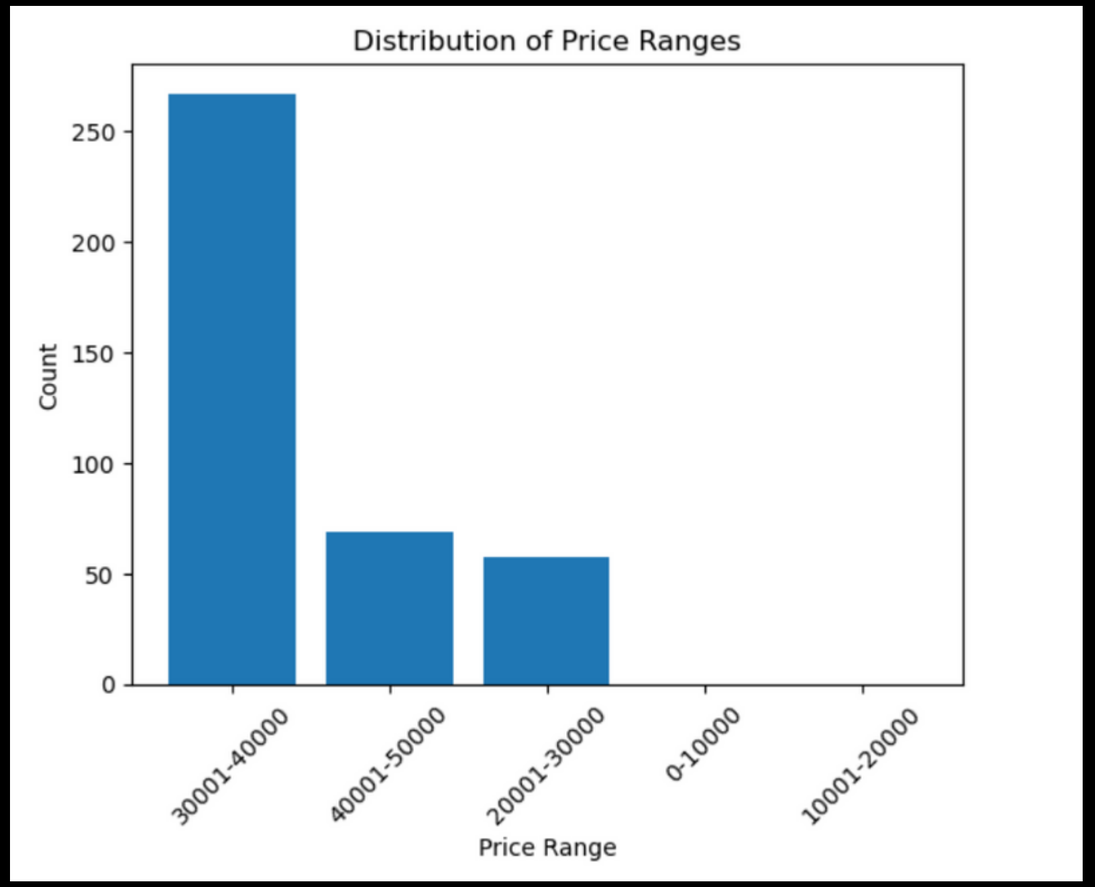
Lyod 1.5 Ton 3 star window AC . This air conditioner is a good choice for those looking for a budget-friendly option

The Comapnies with a rating of above 4



The bar graph shows that Lloyd is the most popular brand for air conditioners with a rating of 4 or above.

Most Popular Price Range for Air Conditioners



- The bar graph shows that the most popular price range for air conditioners is between 30,000 and 40,000.
- This information could be useful for consumers who are looking for an air conditioner in a specific price range

6

THANK YOU!

Have a great day ahead.