Association Rules

FINAL PROJECT BY SAMIKSHA VENUGOPAL

PROBLEM STATEMENT

- Predict the most frequent brought items in the data set from April 2020 to November 2020 of large home appliances and electronics online store to run discount for not frequent brought items.

TECHNIQUES USED

Computed by using 3 steps

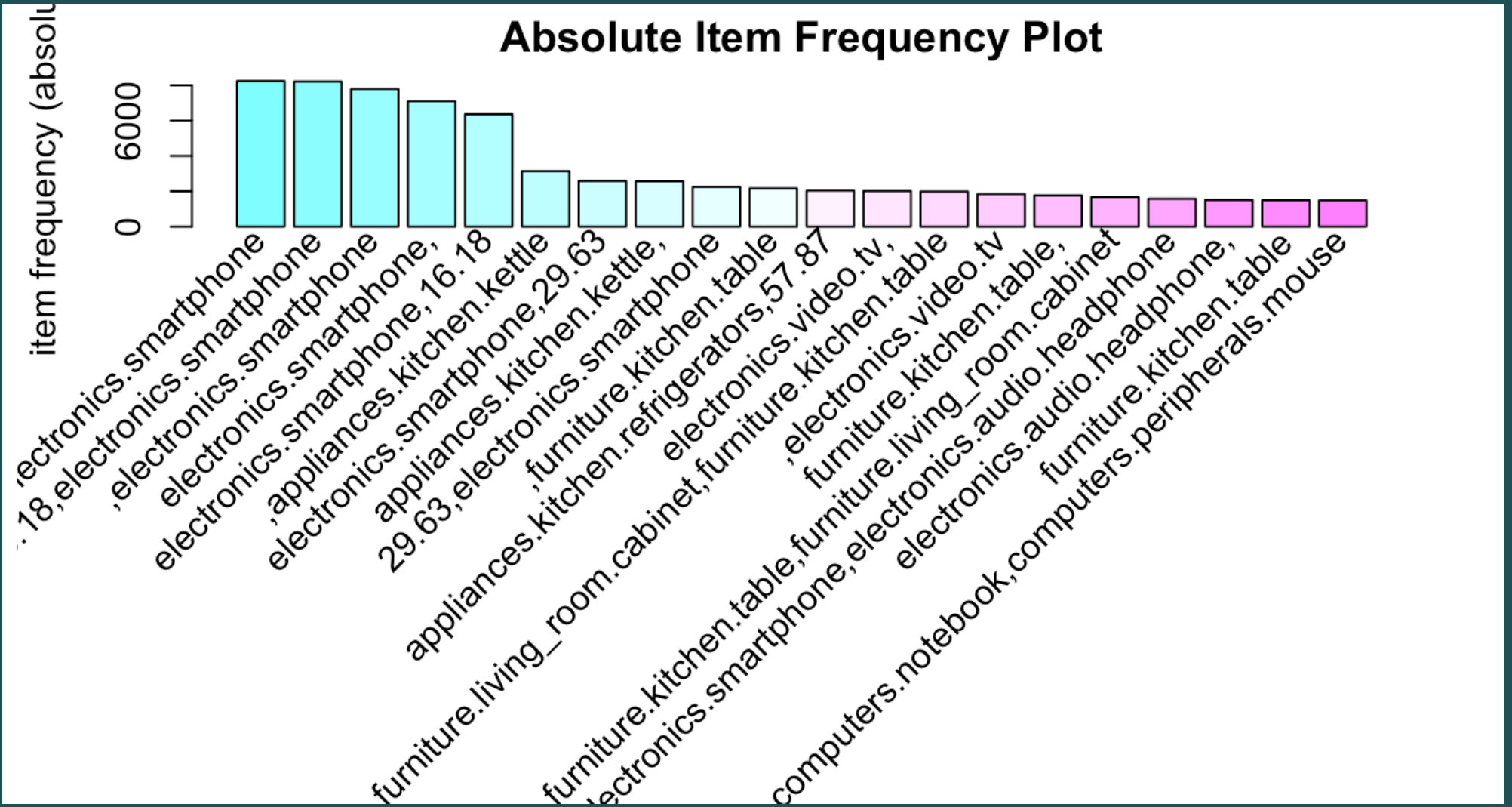
- First process of rules generation
- Assessment of rule strength
- Plot the graph for analysis.

ANALYSIS & INTERPRETATION

Data set collected by kaggle

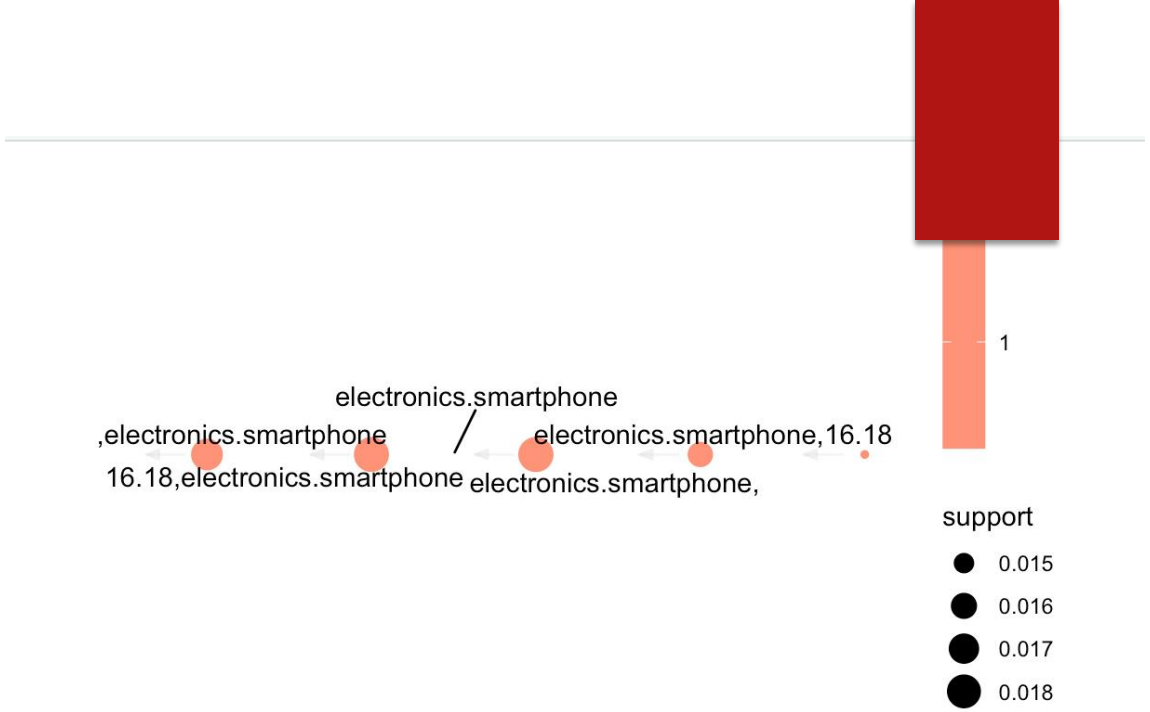
2633521-samples used for mining: Basket data (transactions)
448 products

Absolute minimum support count: 2243
5 rules mined.
Support: 0.005,conf= 0.001
Most purchased products mined and visualized
Most returned products visualization along with data table
Sorted rules by means of confidence and lift.


Absolute Item Frequency Plot
item frequency (absolu
0
6000
ectronics.smartphone
.18,electronics.smartphone
,electronics.smartphone
electronics.smartphone,
electronics.smartphone,16.18
,appliances.kitchen.kettle
electronics.smartphone,29.63
appliances.kitchen.kettle,
29.63,electronics.smartphone
,furniture.kitchen.table
appliances.kitchen.refrigerators,57.87
furniture.living_room.cabinet,furniture.kitchen.table
,electronics.video.tv
furniture.kitchen.table,furniture.living_room.cabinet
electronics.smartphone,electronics.audio.headphone
computers.notebook,computers.peripherals.mouse

CONCLUSION & RESULTS

- Electronics smart phones are the bestselling products.
- Most frequently purchased from the data set is electronic smartphone.
- Least purchased peripherals mouse.
- Here I conclude that additional discount can be provided for products like peripherals.mouse and computers.notebooks in the market.



	lhs <chr>		rhs <chr>	support <dbl>	confidence <dbl>
[1]	{}	=>	{,electronics.smartphone}	0.01735200	0.01735200
[2]	{}	=>	{electronics.smartphone,16.18}	0.01416954	0.01416954
[3]	{}	=>	{electronics.smartphone,}	0.01581203	0.01581203
[4]	{}	=>	{16.18,electronics.smartphone}	0.01830362	0.01830362
[5]	{}	=>	{electronics.smartphone}	0.01836825	0.01836825

THANK YOU