Univariate Analysis

Frequency Table

A frequency table is a useful tool that helps you understand how data is distributed in your dataset. You can use it to create a histogram, which gives you an even better idea of the data distribution.

For example, you have a list of ages for different people. By creating a frequency table with a bin size of 5, you can see how many people fall into each age group. This helps you understand how Age is distributed across different categories or classes. If you want to analyze data like this, you can use a frequency table and histogram to make things easier to understand.

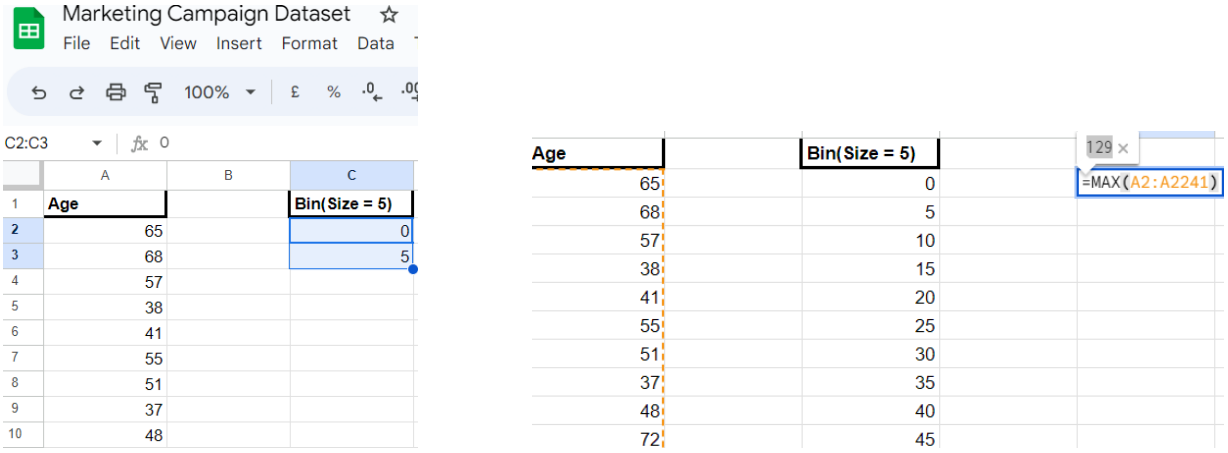
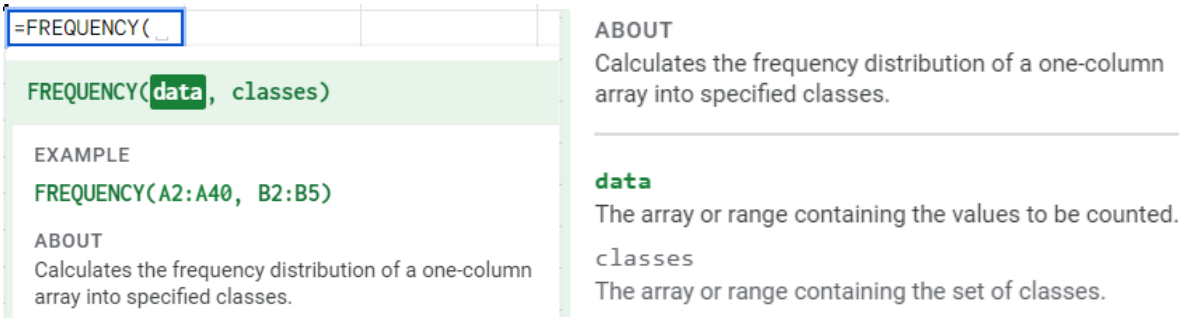


Figure 1: (From Left to Right) The first spreadsheet displays the "Age" dataset, while the subsequent spreadsheet presents the Age column's maximum value along with the filled Bin values in 5-unit intervals. The Age column in this spreadsheet is taken from the [Marketing Campaign Dataset](#).

This example utilizes a bin size of 5. To apply this, input 0 and 5 into two cells, select them, and then drag downwards until the required range is reached.

After this, use the FREQUENCY function to calculate the frequency of Age in corresponding classes.



Formula: FREQUENCY(data, classes)

Here you will write the function as

```
=FREQUENCY(A2:A2241,C2:C28)
```

A2:A2241 signifies data range (Age Column) and C2:C28 signifies class range. After using the function, you will get:

Bin(Size = 5)	Frequency
0	0
5	0
10	0
15	0
20	0
25	0
30	28
35	119
40	199
45	260
50	394
55	330
60	255
65	232
70	241
75	139
80	38
85	2
90	0
95	0
100	0

Observation

Here the value corresponding to 30 (in the **Bin** column) is 28, which means there are 28 people with Ages in the interval 30 to 35, which can be verified by looking into the dataset as these are people with ages 3,4,1 & 5. Hence, it can be inferred that values under the Bin are the Upper limits.

Similarly, the value corresponding to 85 (in the **Bin** column) is 2, which means 2 people have their respective ages within the 85 to 90 range.

Now, it is your turn to implement a frequency table and comprehend how beneficial it can be to analyze and summarize data.