

How to find outliers?

### ① IQR Method.

This is used when data is not normal.

$$\text{Lower Limit} = Q_1 - 1.5 * IQR$$

$$\text{Upper Limit} = Q_3 + 1.5 * IQR$$

The values  $<$  lower limit and values  $>$  upper limit are called as outliers

$$\text{Value} \notin [Q_1 - 1.5 * IQR, Q_3 + 1.5 * IQR]$$

### ② 3-Sigma Rule

This method is used when data is normal.

$$\text{Lower limit} = \mu - 3\sigma$$

$$\text{Upper limit} = \mu + 3\sigma$$

$$\text{Value} \notin [\mu - 3\sigma, \mu + 3\sigma]$$

Note:-

- \* Handle outliers only if percentage of outliers is less than 5%.
- \* If it's above 5% don't do anything.