ANALYSIS OF PLACEMENT DATASET

Measure Of Location Of Data - Percentile

```python
descriptive = pd.DataFrame(index=["Mean", "Median", "Mode", "Q1:25%", "Q2:50%", "Q3:75%", "99%", "Q4:100%"], columns=Quan)
for ColumnName in Quan:
    descriptive[ColumnName]["Mean"]=dataset[ColumnName].mean()
    descriptive[ColumnName]["Median"]=dataset[ColumnName].median()
    descriptive[ColumnName]["Mode"]=dataset[ColumnName].mode()[0]
    descriptive[ColumnName]["Q1:25%"]=dataset.describe()[ColumnName]["25%"]
    descriptive[ColumnName]["Q2:50%"]=dataset.describe()[ColumnName]["50%"]
    descriptive[ColumnName]["Q3:75%"]=dataset.describe()[ColumnName]["75%"]
    descriptive[ColumnName]["99%"]=float(np.percentile(dataset[ColumnName],[99]))
    descriptive[ColumnName]["Q4:100%"]=dataset.describe()[ColumnName]["max"]
```

descriptive

	sl_no	ssc_p	hsc_p	degree_p	etest_p	mba_p	salary
Mean	108.0	67.303395	66.333163	66.370186	72.100558	62.278186	288655.405405
Median	108.0	67.0	65.0	66.0	71.0	62.0	265000.0
Mode	1	62.0	63.0	65.0	60.0	56.7	300000.0
Q1:25%	54.5	60.6	60.9	61.0	60.0	57.945	240000.0
Q2:50%	108.0	67.0	65.0	66.0	71.0	62.0	265000.0
Q3:75%	161.5	75.7	73.0	72.0	83.5	66.255	300000.0
99%	212.86	87.0	91.86	83.86	97.0	76.1142	NaN
Q4:100%	215.0	89.4	97.7	91.0	98.0	77.89	940000.0

SSC Percentage:

- Q1 = **60.6** meaning 25% of the students scored below these values, which identifies the lower-range performance level of the students.
- Q2 = **67** (Median) indicating typical performance is around this level and the increasing percentage between Q1 and Q2 is 7%.
- Q3 = **75.7**, the 75th percentile highlights higher-performing students
- Maximum score is **89.4**, suggesting some high performers.

HSC Percentage:

The majority of the students scored between **60.9** to **73.** This indicates moderate variation between **91.86** and **97.7** with some very high achievers.

DEGREE Percentage:

Shows a fairly consistent distribution with gradual improvement at higher percentiles. Most students scored between the range **61 to 72.** The **99th percentile** reflects extreme high-end values, where the student scored 83.86. The students performing **100th percentile** represents the maximum observed value.

ENTRANCE TEST Percentage:

The Entrance test suggests wider dispersion compared to earlier academic scores. Most of the students scored 60% to 83.5% (Q1–Q3 range), the second quartile score was 71%, while top performers scored between 97% to 98%.

MBA Percentage:

The first quartile (25th percentile) is 57.945%, meaning one quarter of the students obtained marks lower than this level. The second quartile score is 62%, which shows that half of the students scored below this value and the other half scored above it, while the third quartile (75th percentile) is 66.255%, indicating that three quarters of students scored below this mark. The maximum observed score is 77.89%.Overall, the percentile spread demonstrates that MBA scores are clustered fairly closely around the central values.

Salary Distribution:

The Q1 salary is ₹240,000 and Q3 salary is ₹300,000, this indicates that half of the individuals earn within this range. The Q2 median salary is ₹265,000, which represents the typical compensation level. The Maximum salary is ₹940,000. Significantly higher than Q3, suggesting presence of high-end outliers or top performers. The mean salary (₹288,655) being higher than median indicates a right-skewed distribution, influenced by high salaries.