

# DATA SCIENCE – UNIVARIATE ANALYSIS

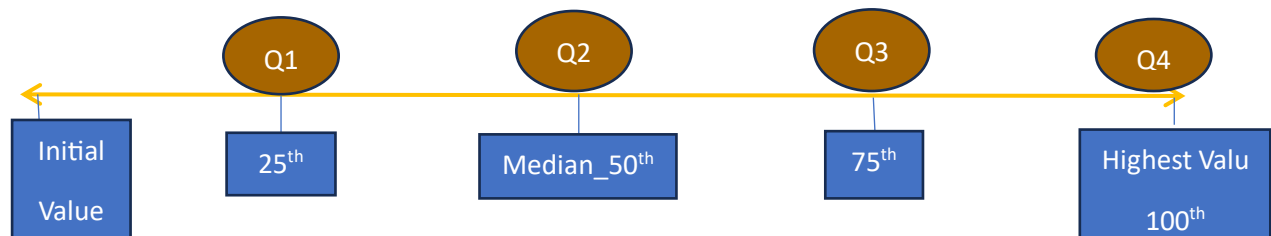
## PERCENTILE

	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	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Q3:75	NaN	NaN	NaN	NaN	NaN	NaN	NaN
Q4:100	NaN	NaN	NaN	NaN	NaN	NaN	NaN
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	671200.0
Q4:100%	215	89.4	97.7	91.0	98.0	77.89	940000.0

### What Is Percentile:-

- ❖ Percentile tells about the value that exists within the range dividing the whole dataset into four parts: 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, and 100<sup>th</sup> in terms of percentage. Each part of the percentile boundary will be

calculated as less than or equal to the percentile value.



## Q1:25%

- SSC students getting only 60.6 percentage in Q1:25% range. This is the lower percentile value within 25%.
- HSC students getting only 60.9 percentage in Q1:25% range. This is the lower percentile value within 25%.
- Degree students getting only 61 percentage in Q1:25% range. This is the lower percentile value within 25%.

- Entrance test students getting only 60 percentage in Q1:25% range. This is the lower percentile value within 25%.
- MBA students getting only 57.945 percentage in Q1:25% range. This is the lower percentile value within 25%.

### **Q2:50%.**

- SSC students getting 67 percentage in Q2:50% range. This is the lower value within 50%. The difference between Q1:25% & Q2:50% is increased by 6.400%.
- HSC students getting 65 percentage in Q2:50% range. This is the lower value within 50%. The difference between Q1:25% & Q2:50% is increased by 4.100%.

- Degree students getting 66 percentage in Q2:50% range. This is the lower value within 50%. The difference between Q1:25% & Q2:50% is increased by 5.0%.
- Entrance Test students getting 71 percentage in Q2:50% range. This is the lower value within 50%. The difference between Q1:25% & Q2:50% is increased by 11%.
- MBA students getting 62 percentage in Q2:50% range. This is the lower value within 50%. The difference between Q1:25% & Q2:50% is increased by 4.055%.

### **Q3:75%.**

- SSC students getting 75.700 percentage in Q3:75% range. This

**value is within 75%. The difference between Q2:50% & Q3:75% is increased by 8.700%.**

- HSC students getting 73 percentage in Q3:75% range. This value is within 75%. The difference between Q2:50% & Q3:75% is increased by 8%.**
- Degree students getting 72 percentage in Q3:75% range. This value is within 75%. The difference between Q2:50% & Q3:75% is increased by 6%.**
- Entrance Test students getting 83.500 percentage in Q3:75% range. This value is above the range of 75%. The difference between Q2:50% & Q3:75% is increased by 12.500%.**
- MBA students getting 66.255 percentage in Q3:75% range. This is the lower percentile value within 75%.**

**The difference between Q2:50% & Q3:75% is increased by 4.255%.**

**99%.**

- **SSC students getting 87 percentage in 99% range. This is the lower percentile value within 99%. The difference between Q3:75% & 99% is increased by 11.300%.**
- **HSC students getting 91.86 percentage in 99% range. This is the percentile value near the 99%. The difference between Q3:75% & 99% is increased by 18.86%.**
- **Degree students getting 83.86 percentage in 99% range. This is the lower percentile value within 99%. The difference between Q3:75% & 99% is increased by 11.86%.**

- Entrance test students getting 97 percentage in 99% range. This is the percentile value near the 99%. The difference between Q3:75% & 99% is increased by 13.5%.
- MBA students getting 76.1142 percentage in 99% range. This is the lower percentile value within 99%. The difference between Q3:75% & 99% is increased by 9.8592%.

### **Q4:100%.**

- SSC students getting 89.40 percentage in Q4:100% range. This is the lower percentile value within 100%. The difference between 99% & Q4:100% is increased by 2.40%.
- HSC students getting 97.70 percentage in Q4:100% range. This is the

**percentile value near the 100%. The difference between 99% & Q4:100% is increased by 5.84%.**

- Degree students getting 91.00 percentage in Q4:100% range. This is the percentile value near the 100%. The difference between 99% & Q4:100% is increased by 7.14%.**
- Entrance test students getting 98.00 percentage in Q4:100% range. This is the percentile value near the 100%. The difference between 99% & Q4:100% is increased by 1.00%.**
- MBA students getting 77.89 percentage in Q4:100% range. This is the lower percentile value within 100%. The difference between 99% & Q4:100% is increased by 1.7758%.**



## **CONCLUSION:-**

- **The analysis shows a steady increase in scores across all education levels, with entrance test and HSC students achieving the highest final percentiles of 98% and 97.70%, respectively. SSC and Degree students also show consistent improvement, reaching 89.40% and 91.00% at the top percentile. Entrance test students demonstrate the most significant growth, while MBA students lag behind, peaking at 77.89% with the slowest percentile increase. The largest score jumps occur between Q2 and Q3 for entrance test students, while MBA students show minimal growth across all percentiles. Overall, students with**

**strong academic foundations  
perform well, but MBA students  
may require additional academic  
support.**