Create a Precentile Analysis

Q1:25th	54.5	60.6	60.9	61.0	60.0	57.945	240000.0
Q2:50th	108.0	67.0	65.0	66.0	71.0	62.0	265000.0
Q3:75th	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
Q4:100th	215.0	89.4	97.7	91.0	98.0	77.89	940000.0

1) **Spread of Academic Scores (ssc_p, hsc_p, degree_p, etest_p, mba_p):**

Q1 values (25th percentile) are in the **60–62% range** → Even lower-performing students are not far below average.

Q3 values (75th percentile) are in the **72–83% range** → Higher-performing students push towards 80–85%.

This shows scores are **moderately spread**, but still centered around mid-60s to mid-70s.

ssc_p (Secondary %)

Q1 → Q2 (Median): 67.0 – 60.6 = **6.4**

Q2 → Q3: 75.7 – 67.0 = **8.7**

Q3 → Q4 (Max): 89.4 – 75.7 = **13.7**

hsc_p (Higher Secondary %)

Q1 → Q2: 65.0 – 60.9 = **4.1**

Q2 → Q3: 73.0 – 65.0 = **8.0**

Q3 → Q4: 97.7 – 73.0 = **24.7**

degree_p (Graduation %)

Q1 → Q2: 66.0 – 61.0 = **5.0**

Q2 → Q3: 72.0 – 66.0 = **6.0**

Q3 → Q4: 91.0 – 72.0 = **19.0**

2) **Entrance Test (etest_p):**

Q3 = **83.5%** → top 25% students perform much better than their academic averages.

etest_p (Entrance Test %)

Q1 → Q2: 71.0 – 60.0 = **11.0**

Q2 → Q3: 83.5 – 71.0 = **12.5**

Q3 → Q4: 98.0 – 83.5 = **14.5**

3) **MBA Performance (mba_p):**

Median = **62%**, Q3 = **66.25%**, Q4 = **77.89%**.

Suggests fewer students perform exceptionally well in MBA compared to school/college → performance is **more compressed**.

mba_p (MBA %)

Q1 → Q2: 62.0 – 57.9 = **4.1**

Q2 → Q3: 66.3 – 62.0 = **4.3**

Q3 → Q4: 77.9 – 66.3 = **11.6**

4) **Salary Distribution:**

Q1 = **240,000**, Median = **265,000**, Q3 = **300,000**.

75% of students earn **≤ 300,000**, meaning salaries are clustered in a narrow band.

Q4 (max) = **940,000**, which is far above Q3 → confirms **extreme outliers** in salary (a few students earn much more).

This explains why the **mean salary is higher than the median**.

salary

Q1 → Q2: 265,000 – 240,000 = **25,000**

Q2 → Q3: 300,000 – 265,000 = **35,000**

Q3 → Q4: 940,000 – 300,000 = **640,000**

5) **99th Percentile:**

Academic scores → around **85–97%**.