

# HOPE AI

## Central Tendency (Mean, Median, Mode) Analysis Document

**Github link of Data:** <https://github.com/JayachandraPrabha/3.Data-Science/blob/main/Placement.csv>

Central tendency is nothing but the measure of a single value as a representative of the entire distribution / column / variable.

Measures of the central tendency are,

- Mean
- Median
- Mode

Let us consider the given data, some of the basic informations about the given data are,

- 1) The overall shape of the dataset: **215 rows × 15 columns**.
- 2) The data basically deals with the survey of the candidates who have **placed and not placed** in the placement and the columns in the data are,
  - 'sl\_no', 'gender', 'ssc\_p', 'ssc\_b', 'hsc\_p', 'hsc\_b', 'hsc\_s', 'degree\_p', 'degree\_t', 'workex', 'etest\_p', 'specialization', 'mba\_p', 'status', 'salary'
  - In the above mentioned columns there were qualitative columns / variables (Categorical data) and quantitative columns / variables (Numerical data), hence both were separated.
- 3) From the above data, the measures of Central Tendency calculated is as follows:

	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

- 1) From the obtained insights from the data let us calculate the following:

- **MEAN:**

Column Name	Mean Value	Performance info
SSC pass percentage	67	Average
HSC pass percentage	66	Average
Degree pass percentage	66	Average
ETest pass percentage	72	Good
MBA pass percentage	62	Average

- Therefore from the above information, the mean (with outliers) for the salary obtained by the candidates is nearly **2,88,655**.

- **Median:**

Column Name	Mean Value	Performance info
SSC pass percentage	67	Average
HSC pass percentage	65	Average
Degree pass percentage	66	Average
ETest pass percentage	71	Good
MBA pass percentage	62	Average

- Therefore from the above information, the median (without outliers) for the salary obtained by the candidates is nearly **2,65,000**.

- **Mode:**

Column Name	Mean Value	Performance info
SSC pass percentage	62	Average
HSC pass percentage	63	Average
Degree pass percentage	65	Average
ETest pass percentage	60	Average
MBA pass percentage	56	Average

- Therefore from the above information, the mode (repetitive values) for the salary obtained by the candidates is nearly **3,00,000**.

**Conclusion:**

From the given data, the overall candidates who attended the placement whose SSC, HSC, degree, entrance test and in the MBA performance is **average**.