**TASK A2**

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1. Investigate the Attribute or dimensions or features or variables with a suitable scenario and prepare your critical report?  
   **Nominal  
   Binary  
   ordinal**

**Numeric: quantitative.**

ANS-

1. **Nominal Attributes – related to names:**The names of things, or symbols, are the values of a Nominal attribute. Nominal attribute values reflect a category or state, which is why nominal attributes are sometimes known as categorical attributes, and there is no order (rank, position) among nominal attribute values.

| Attributes | Values |
| --- | --- |
| Colours | Blue,Red,Green,Orange |
| Categorical Data | Lecturer, professor, assistant professor |

1. **Binary Attributes:** Binary data has only 2 values/states.

For Example yes or no, affected or unaffected, true or false.

* **Symmetric:** Both values are equally important (Gender).
* **Asymmetric:** Both values are not equally important (Result).

| Attribute | Values |
| --- | --- |
| Gender | Male, female |

| Attribute | Values |
| --- | --- |
| Cancer Detected | Yes, No |
| Result | Pass, Fail |

1. **Ordinal Attributes:** The Ordinal Attributes comprises values that have a logical sequence or ranking(order) between them, but the magnitude between them is unknown; the order of values indicates what is important but not how important it is.

| Attribute | Value |
| --- | --- |
| Grade | A,B,C,D,E,F |
| Pay Scale | 17,18,19 |

**4. Numeric:** Because it is a measurable quantity represented in integer or real values, a numeric quality is quantitative. There are two sorts of numerical attributes: **interval** and **ratio**.

* The numerical characteristics do not have the correct reference point, or what we can term zero points, while interval-scaled attributes contain values with interpretable differences. On an interval scale, data can be added and subtracted but not multiplied or divided. Consider the temperature in degrees Celsius as an example. We cannot state that one day is twice as hot as another if the temperature of one day is twice that of the other.
* **A numeric attribute** having a fixed zero-point is known as a ratio-scaled attribute. We can claim that a value is a multiple (or ratio) of another value if a measurement is ratio-scaled. The numbers are arranged, and we may compute the difference between them, as well as calculate the mean, median, mode, Quantile-range, and Five-number summary.