Semester : IV Subject : Statistics for AIDS Academic Year: 2023-2024

EXPLORING BINARY AND CATEGORIAL DATA :

Categorial variables take on a fixed and limited number of possible values. For example grades, gender, blood group type etc

The sorting of these variables uses logical order for example, gender is a categorial variable and has categories male and female. And there is no ordering to assign categories.

Example:-

Consider the below table:

Date	Sports	T-shirt size	Prize of T-shirt	Weather
5th June	Cricket	S	200	Sunny
9th June	Football	M	300	Cloudy
11th June	Tennis	S	200	Rainy
13th June	Relay	L	400	Windy

In the above table, we have different categorical data → 4 units of Sports
3 units of T-shirt
4 units of Weather.

In this case, the prize of T-shirt is numerical data.

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There are two types of Categorical data.

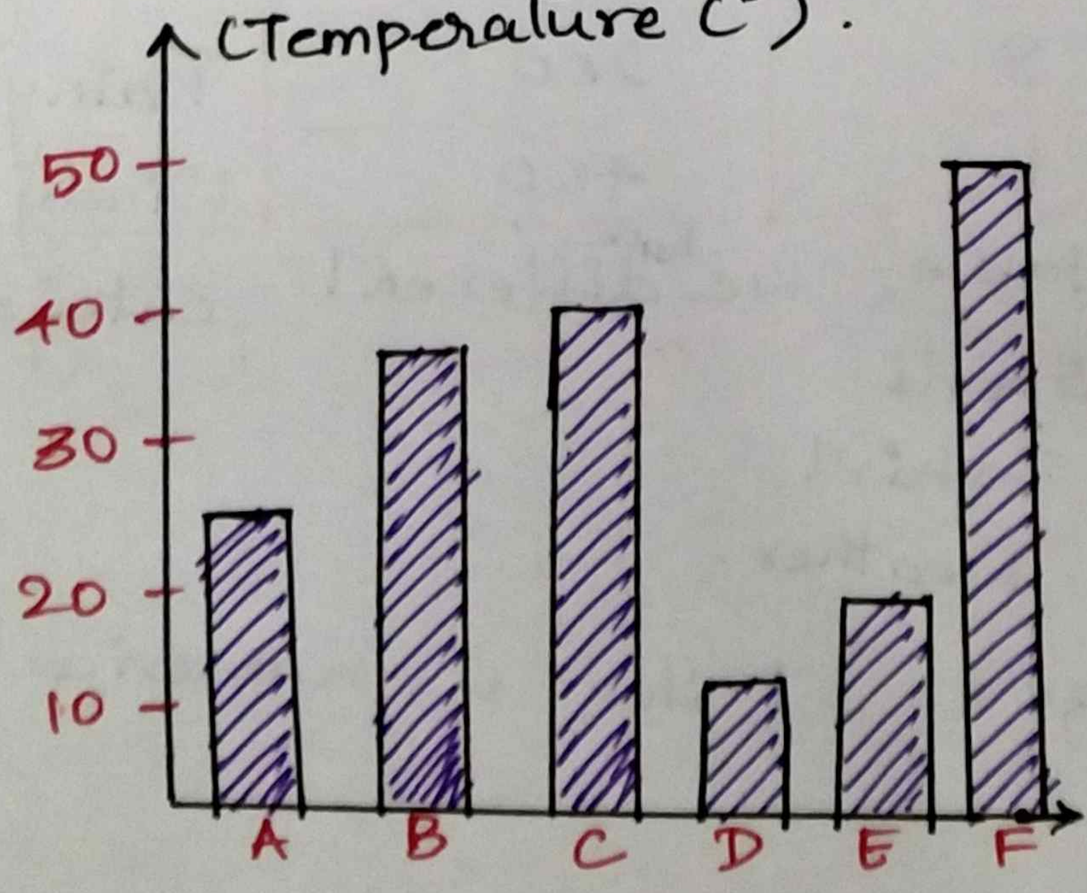
Ordinal Non-Ordinal.

Ordinal Categorical data:

Ordinal Data are the ones that can be ordered in a particular order. In the above table, the size of T-shirt is ordinal data. We can order them as Small < Medium < Large. That cannot be done with Weather. (Sunny < Cloudy) — This does not make sense. They type of datas are known as **Non-Ordinal Data**.

BAR CHARTS:-

Bar charts are a common visual tool for displaying a single categorical variable,. Categories are listed on x-axis, and frequencies on the y-axis.



This bargraph shows the temperature of different cities. The graph give the answer for the foll. questions.