These sampling techniques are more useful for handling the missing value data in EDA.

First of all, let us know about **“Sampling”**.

**What is Sampling**?

Choosing a sample is called Sampling.

Different types of Sampling Techniques:

* **Simple Random Sampling:**
  + **Every member of the population (N) has an equal chance of being selected for your sample (n).**

Ex: Exit poll , General Survey, Movie review, lottery etc.

Let us consider we have total number of marbles **N = 11**, choosing 3 marbles is **n = 3**

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Below is another example **: Exit polls.** Total Population **(N),** selected population is **n**

* **Stratified Sampling:**

**We can do this sampling based on similar characteristics.**

Strata mean **layers**, which means **clusters** means **grouping.**

* **Systematic Sampling:**
  + **Selecting every nth individual out of population (N)**

**Ex:** We can observe in the airport this kind of sample. There are some people who are selling the credit cards**.**

**The Agents will select the every 5th or 7th or 9th individual for selling of the credit card.**

* **Convenience Sampling:**
  + In this sampling, only those who are interested in the survey will only participate.

Ex: Survey regarding new technology, data science survey.

Examples relating to all sampling techniques in one shot:

1. If RBI is giving offers to Married women.

Here RBI survey – Women- Married Women (stratified sampling) – from here Random Sampling

1. Credit card

First they will filter the salaried employees (stratified)- then they will select every individual there (Random Sampling)