**Day 1**

**statistics:-** is a branch of mathematics where we can organize, visuallise, analyse the data for better decision making and predictions.

**There 2 types of stats**

1.Descriptive stats:-gives the summary of data

2.inferential stats:-is a process of data analysis where we can make the conclusion report about your data.

**What is Population?**

population is a overall data that you want draw conclusion

**What is Sample?**

sample is part of population

**What is data?**

data is facts or piece of information that can be measured

**Types of sampling techniques:-**

1.simple random sampling:- is process where every member has equal chance to get selected

2.straified sampling:- is process where population spilts into non-overlaping groups

3.systametic sampling:-is a probability sampling methods where researches select population of nth interval

4.convinence sampling:- is the process of taking the sample data from those who has knowledge on the research data

**Variable**

-it is a containers where we can store the data and reuse it.

-The variable are 2 types according to stats:-

1.Quantitive variable:- numerical data

-there are 2 types:-

a)continuous data:- a numeric value that has infinite number of values

ex:- weight of students in a class room

height of students in a class room

b) discrete data:- a fixed whole number

ex:- no of childrens in a family -> 2,3,4

total population in a city

No of students in a class🡪 discrete data

House rent prices in a area 🡪continous

No of houses in a area 🡪 discrete

Count of sugar🡪 cont

2.Qualitative variable:- is categorical data based on some characterstics we derive some values

Ex:- dog breeds , eye color, gender , level of education, marital status

#What are all variable measurement scales do we have?

#there are 4 types:-

1.Nominal data:- categorical data no order

2.ordinal data:- order matters

3.interval:- order matters and values also matter

4.ratio:-1:2 , 3:2

**DAY – 3 – STATS**

Probability:- A particular event happens or not is known as probability

Q)How much percentage you are confident to clear the exam?

Q)Today is sunday what is probability that tomorrow is monday?

Q)what is the probability that tomorrow is going to raing?

#what is sample space?

#all the possible outcomes

week = {sun,mon,tues,wed,thu,fri,sat}

ss = {1,2,3,4,5,6}

dec of cards = 52 == 13 cards each

toss a coin ss--> {H,T}