Level-2 Python

1. Strings
2. List
3. Dictionary
4. Lambda functions
5. File handling ======== .txt

Tuple and Set documentation ======= >

Python certification ========= > pending

Generative AI =========== > Certification (free)

Statistics today

3 parts

1. Basic statistics
2. Graphs
3. Visulaization

Probabiity

Sample theorems

Around 10 days ========

Buffer time to learn python more

1. You need to practice python
2. You need to study the statistics

Statistics ========= very must in order to understand the data

What is statistics?

1. Mathematics
2. Probability
3. Data
4. Facts and figures
5. Mean-mode-median
6. Graphs
7. Ratio

A Data

Virat Kohli average in ODI is 60

I asked to Rashad , is that True?

What Rashad will do

1. Collect the data
2. Organize the data
3. Analyse the data
4. Interpretation in graphical view

Data:

How many types of data available

String

Int

Float

English =========== Math

RS AGARWAL

Quantitative and qualitative

HC verma

1. Numerical data ============= Maths

Quantitative data

1. Categorical data ============ English

Qualitative data

Again numerical data divided into two parts

Maths

My salary : 50000

My salary: 60,500.495rs

1. Continues data:

What is the temp: 30.5

98.4F ======= > fever 102

Room tem: <>

1. Discrete data:

How many houses you have : 1 or 2

How many fiends you have: 10 or 20

How many kids you have ? 1,2,3

1.5 2.5

| Numerical data (number representation) | Categorical data ( English) |
| --- | --- |
| Quantitative data | Qualitative data |
| Continues data |  |
| Discrete data |  |

Levels of data:

Numerical data ======= ML/DL/NLP ====== AI

Yes ===========1

1. Nominal data

* Categorical type
* Name of the person
* Name of the city
* Hyd blr Chennai
* Very very base level

1. Ordinal data

* Categorical type
* But it maintains some order
* Flop Average Hit superhit blockbuster
* Primary secondary teritairy
* High ---- Medium --- low
* First class ---- second class --- third class

1. Interval data

* Numerical type of data
* Extract equal intervals will be there
* It does not have a zero scale
* Temperature is the best example for interval level of data

1. Ratio level data

The temperatures is in hyderbad twice as benguluru

Temp(hyd) = 2\*Temp(blr)

Temp in hyd 50c

Temp in blr =25c

Is this True

Units?

50c= 2\*25c ====================

Temp(hyd) in F = 2\* Temp(Blr)F

50 in C ========== > 122F

25 in C ========== > 77F

122= 2\*77

Weight : 60kgs

Kid = 3okgs

60=2\*30kgs

If it is has zero scale =========== > Ratio level of data

If it does not have zero scale ===== > Interval data

| Numerical data | Categorical data |
| --- | --- |
| Quantitative | Qualitative |
| Continues |  |
| Discrete |  |
| Interval(3) | Nominal(1) |
| Ratio (4) | Ordinal(2) |

Open intro statistics

40 pages ====== 8 5x16=80 + 20

40 pages ======= failed me

Probality

Two types of statistics

1. Descriptive statistics
2. Inferential statistics

Population Sample

In India every person if you consider 140cr ======== Population

If you select only 1lakh =================== > sample

Population means collection of every object

Sample means selection of some objects from corresponding population

Election fever:

1. Mobin
2. Karthik
3. Rashadh
4. Jyostns

Which party will win?

Sample data ======== instead of population

What is the reason?

1. Population is huge
2. Time complexity
3. Cost

My team researched and they are conclude

Sir based on our analysis in Telangana ===============

Will analyse on sample ======= will estimate the analysis on population

25 yaers -40 salary ========= avg

Estimate ========== infer

Inferential statistics:

Will work on samples , will estimate the outcome on population

Descriptive statistics:

Will work on population , will estimate outcome on population

99.99% ======== 100%

What ever you worked sample

You are estimating ======= mean

======== median

======== mode

Here mean is a statistic

Median is a statistic

You are working on sample to identify a mean ======= estimated mean of population

Here mean: statistic

Inferential statistics: statistic can be mean/median/mode

You are working on population ========= estimating outcome on population

Outcome: Parameter

Descriptive statistics: Parameter can be mean/median/mode

1. Linear regression
2. Logistic regression
3. Decision tree
4. KNN
5. Naïve bayes
6. SVM
7. RF
8. Bagging/boosting
9. K-mean
10. Hireactchical
11. Density based

5 qns ======== kid

5 qns

6qns ==============

Sir just give a little difference between statistic (mean/median/mode) : inferential statistics

and parameters can mean/median/mode : descriptive statistics

when will a mean will be statistic

when will a mean will be statistic?

If you work on sample ========== estimating population

When will be a mean parameter?

If you work on population ========= estimation population