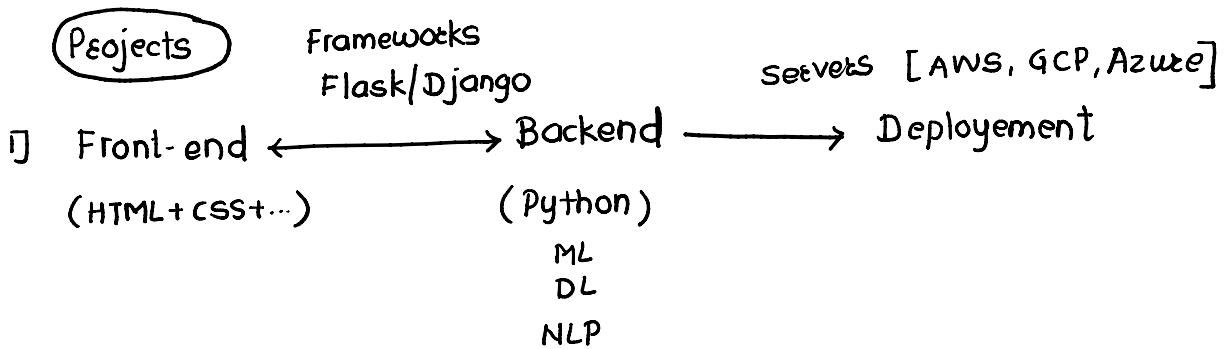
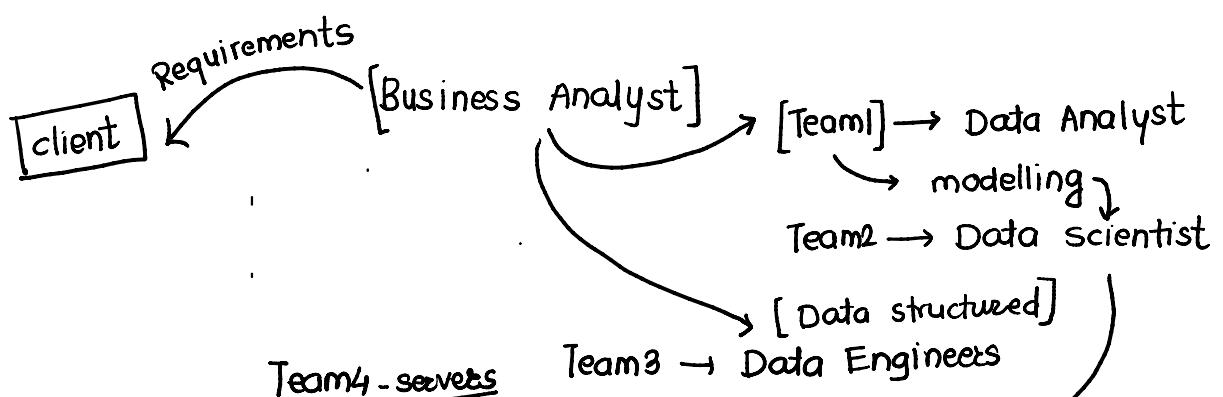


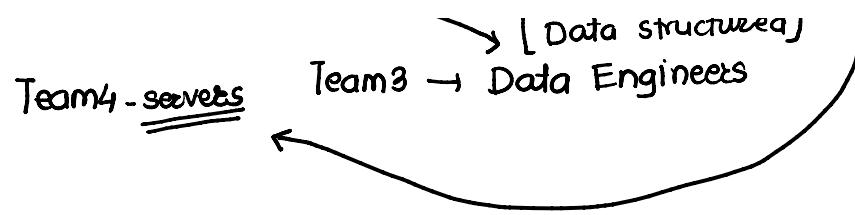
- | [Data Analytics] | [Data science] |
|--------------------------------------|-------------------------------|
| 1) Python (Basics) | 1) Python (Basics - Advanced) |
| 2) Statistics | 2) Statistics + Adv. Excel |
| 3) Advanced Excel | 3) Data Manipulation |
| 4) Data Manipulations
- Libraries | 4) MySQL |
| 5) MySQL | 5) PowerBI / Tableau |
| 6) Power-BI / Tableau | <hr/> |
| | 6) ML |
| | 7) DL |
| | 8) NLP |
| | 9) AWS/GCP/Azure |



Pre-re →

- 1) Python
- 2) Flask/Django *
- 3) Github + Git → AWS





Day - I] Essential Python For Data Science :-

- History:
- 1) Guido Van Rossum ←
 - 2) 20 Feb 1991
 - 3) CWI [Centrum Wiskunde & Informatica]
 - 4) BBC Network - Monty Python's Flying circus

Introduction & Features :-

- 1) Free & open source
 - 2) Interpreted → line by line
 - 3) Dynamic → No need to declare data types
 - 4) Object Oriented Programming
 - 5) Portable → Windows, Linux...
 - 6) **GUI** ?
- compilation** → machine language

Installation:

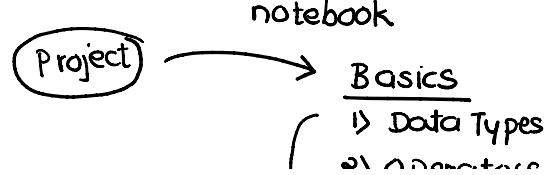
python.org



Installation of Jupyter Notebook -

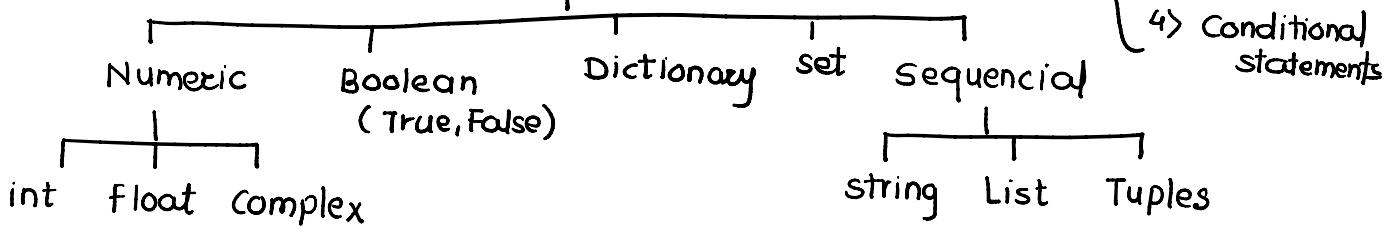
✓ start (Right click) → Powershell/Terminal → pip install jupyter

jupyter notebook



jupyter notebook

[Data Types]



* Conditional Statements -

↳ If - else

syntax:

```

if condition:
    statements
else:
    statements

```

]] take 2 no's from user &
print max.betⁿ no's.

* Loops - ① for loop:

syntax - for i in range():

 ↓ initialize

 ---- statement increment

50 natural no's.

② While loop: i=0 ← initialize

syntax: while(condition):

 statements

 i=i+1 ← increment

* [control statements]

↳ break → 25 — X

✓ ↳ continue → skip 1...
 50
 ~~25~~

✓ ↳ pass → no effect of
 condⁿ
 —

* Functions :-

- 1] Built-in function: print, len, ... etc.
- 2] User-defined \Rightarrow
- 3] Anonymous — Lambda
- 4] Recursive Function -

- User-defined Functions :-

`def function-name():
 statements`

parameters

} definition

`function-name()`

Arguments

} calling.

parameters \rightarrow

Arguments \rightarrow

* Anonymous- Lambda

\hookrightarrow a single line function having more than one para.

syntax:

def \rightarrow `function-name = lambda parameters : statements`

calling \rightarrow `function-name()`

↑ arg.

- Day-1] Installation — Python + jupyter notebook + vs code
- Day-2] Data Types + Operators
- Day-3] Conditional statements + loops + functions
- ✓ Day-4] Flask [Installation, Routing, variable Rules, templates,
 ↑
 [Framework] static, template rendering, methods etc]

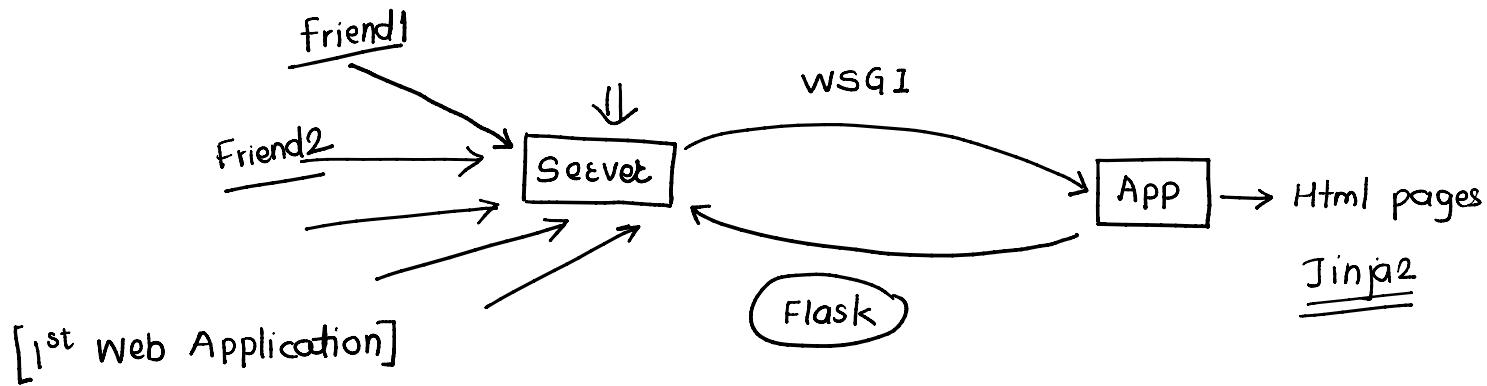
21/Mar/2025

WSGI → Web Server Gateway Interface

Jinja2 → templates → html+css → pages

rendering-

X Environment ✓



Create New Folder

↓
cmd

↓
code .

VS code → [Environment]

↓

[virtual env.]

↓

Terminal

↓

python -m venv env-name

↓

Activation of env....

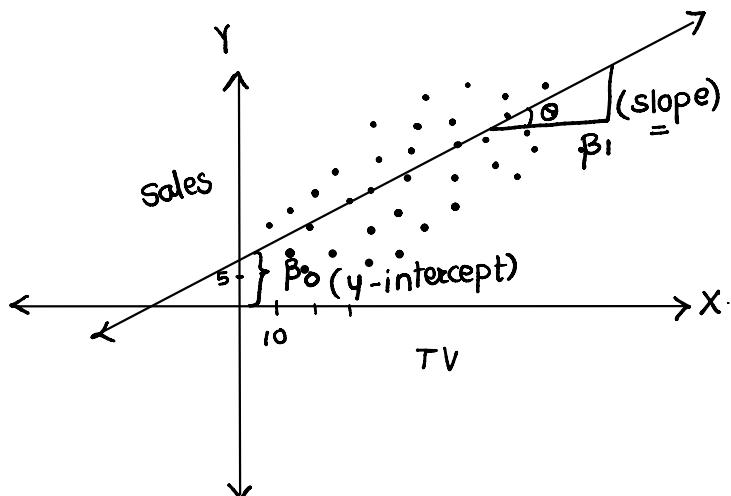
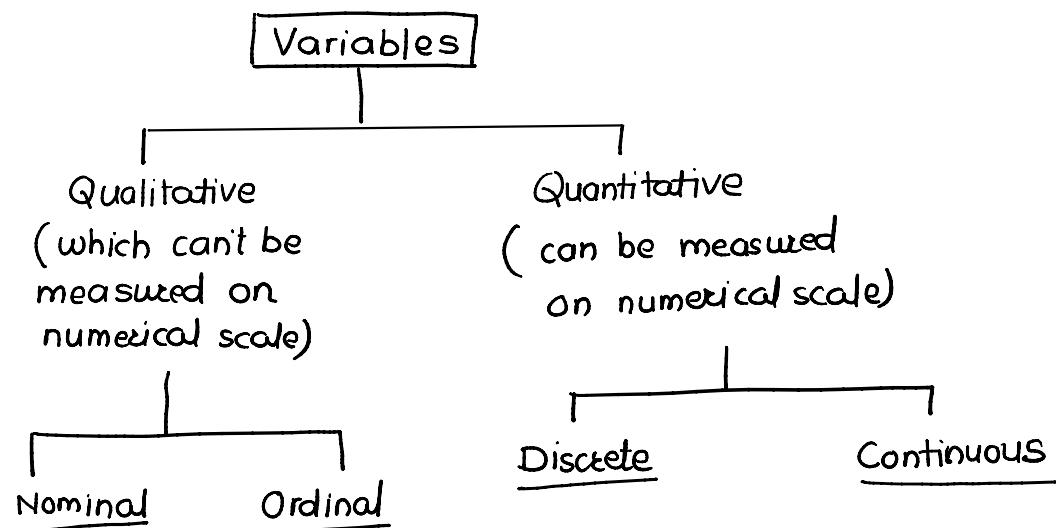
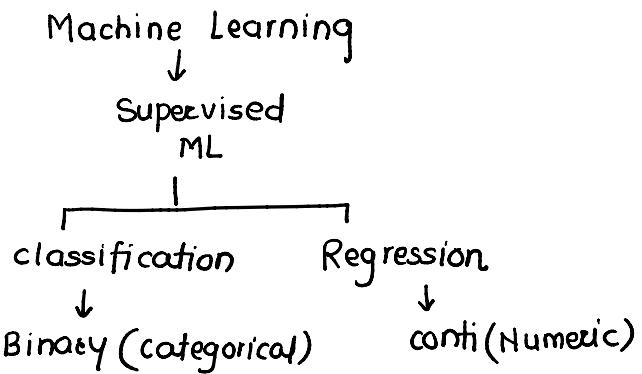
22/Mar/2025

Environment Creation

python virtual
env.

python -m venv —

25/03/2025



dependent
 $y = \beta_0 + \beta_1 x$
independent