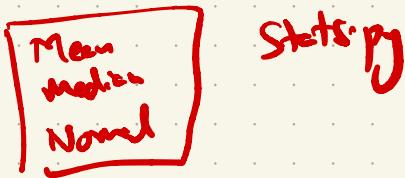
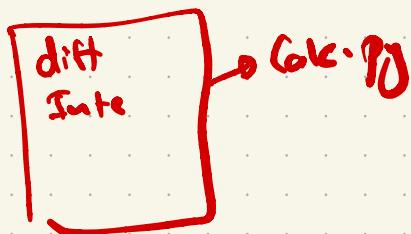
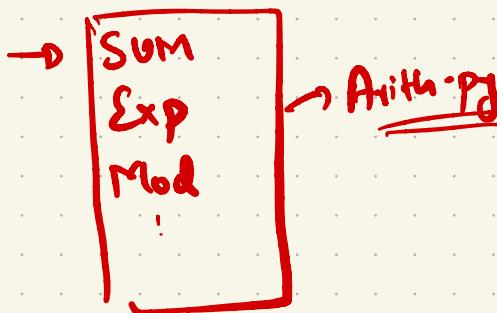




Modules & Exception Handling

- Agenda
- Modules
 - Random Numbers
 - Exception handling
 - Try Catch | Try Except
 - Raising Custom Errors

⇒ Modules ??



⇒ Function

↓
Collection of Function [Python File]

↓
Collection of selected Modules
Python File

↓
Collection of [package]
Module

Inbuilt functions → Inbuilt modules → Inbuilt packages

Python do not reimport packages' modules

=> .py
Is python file

- Ipyh ✓ This is not a python file.
- Python Notebook files
- Python Code
- Their own Formatting
- Plain Text --

Do DS create their own module

Yes → Almost every major company

have production package

Hawkins → open source 11m model from facebook

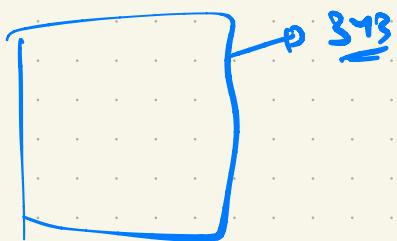
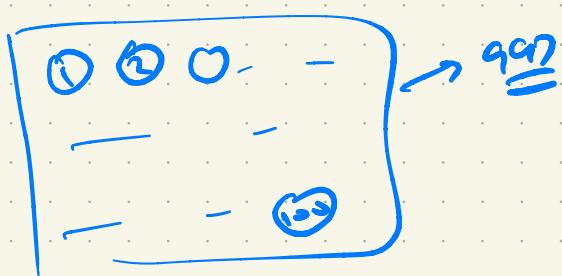
=> Random() → generating numbers random

For a lot of
practical
purposes

→ we need random
numbers always

everyday,
every laptop
a
new date
would appear

Stats



\Rightarrow If we supply a seed value

↳ Code will generate random number
but in same order everytime.

How Randomization works →

If I need to define the function

→ we need to know all interval steps

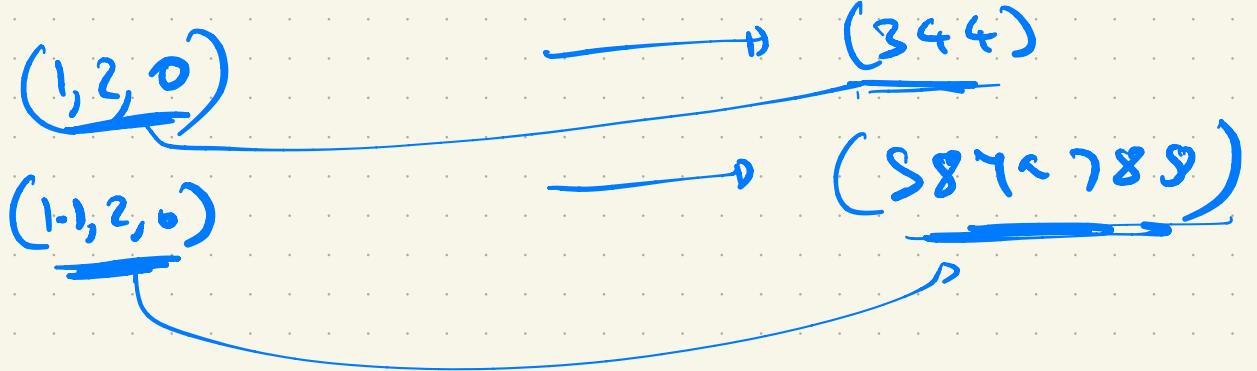
\Rightarrow All functions \rightarrow mathematical operation

x y z } $\rightarrow f(x,y,z)$ \rightarrow differential value every time.

$$\frac{1+2}{1-2}$$

→ Many mathematical functions were created

Even a minute change in input → drastically change the output



Maths → will always return the same value
for same input

Father here asking 3 variables → Just ask 2 and don't tell
the user what 3rd variable you will use.



→ Time Stamp → why not use timestamp

user {
Start →
End →

randomize
(Mutation)

↑
(Time)
~~
Code supply
this

Code is supplying
any date
↓
Seeding.

Current timestamp
is default!

Seed → replaces the default

Epoch time →

milliseconds
Since

1 Jan 1970 UTC

unix time

1712766625

Seconds

mil

ms

all program



later
than starting from 1 Jan 1970

→ 
101
102
103
104
105

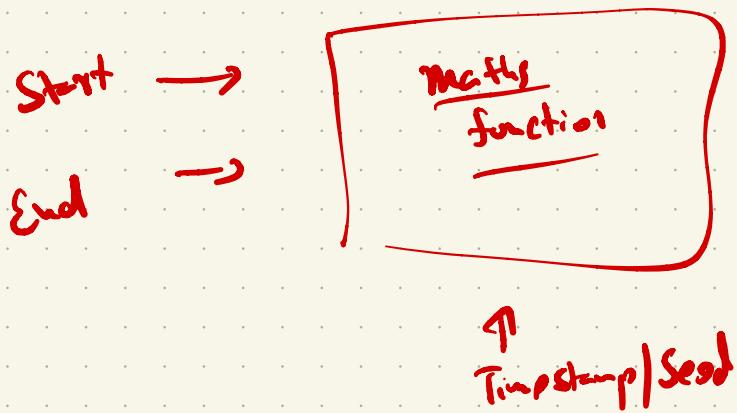
⇒ If you don't give seed
timestamp is used → this always changes.

⇒ If you give seed
seed is used
It only changes when a random function is called.

⇒ How does seed work across the devices

→ Python version should be same

↳ (the function used inside random function is same)



⇒ Any issue in the code, data, which causes the program to break

If the cause is known to Python



Exception

If cause is not known to Python



Error

An unknown Error occurred
Exiting.

- Deployment
- Using NLP libraries

⇒ Debug / fix

	0	0	
	0		

Learn EMI
Salary

Code

If Exception
do this

else
Continue

⇒ Python goes line by line

if ($a == 5$):
_____ X $\underline{a=3}$

elif ($a \geq 10$):
_____ Y

elif ($a < 5$):
_____ Z

Syntax

try

→ Except Zero

→ Except Except

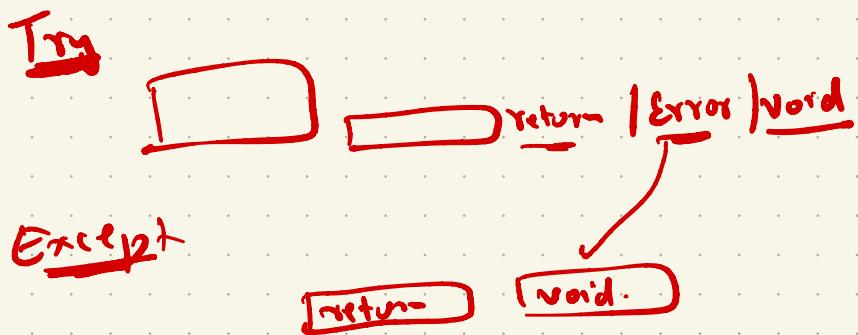
⇒ Exception handling

→ Either the data is large

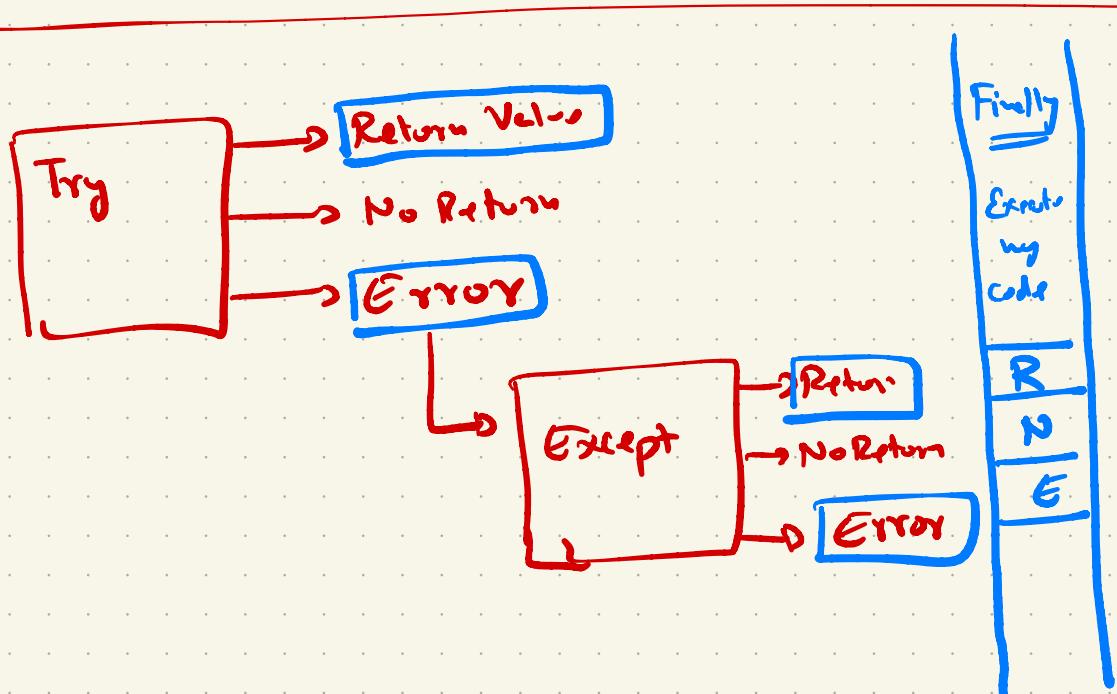
→ User inputs are analyzed

→ In web scraped data

Finally gets executed always after the try or
block except block.



finally before returning any Error or output from
the try & Except blocks run
finally →



⇒ * Finally is executed after try and except

⇒ * Return | Error
or
Finally

>>>

Return | Error
in
try | Except

g = {1, 2, 3, 4}

x = {2}

[{1, 2}, {2, 2}, {2, 33}, {2, 4}, {1, 2, 3, 4}]

array = [1, 2, 3]

reduce { func, array, set() }

(p) + $\frac{1}{x}$

[1, 1]

p

+ $\frac{2}{x}$

((1, 2), (2), [1, 1])
p + $\frac{3}{x}$

(1, 2, 3) (2, 3) (1, 3), (1, 2), (2) (1)

Collab : <https://colab.research.google.com/drive/1Now37shlvFCR4AO50XdYbAHACwjiOUfg?usp=sharing>