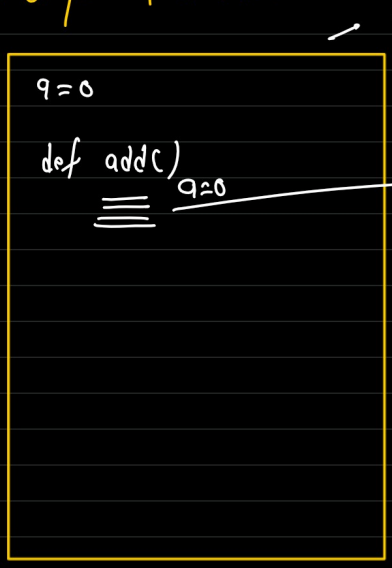
31-01-2026

Agenda :

* Scope of a variable (Global & local)
* Function arguments (*args, **kwargs)
* libraries, pip & PYPI
* OS library
* File operation

* Scope of a variable



* variable defined in a function is called as local variable of that function.
* once the function ends, the variable is forgotten.

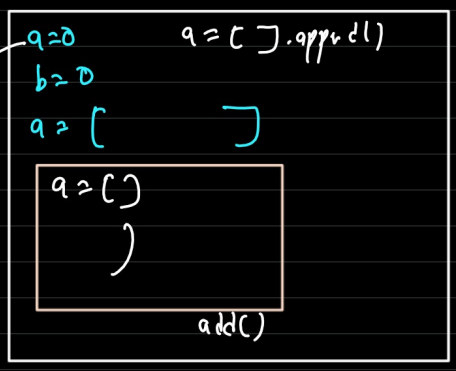
```
a = 0

def add():
    a = 2
    a+=1
    print(a)

print(a)
add()
```

a → address

a → address




```
a= [ ]
def add ( ):
    a=()
    a.append ( "123" )
```

```
def add(*a):
    print(type(a))
    print(a)
    sum = 0
    for i in a:
        sum+=i
    print(sum)
```

add(1,2,3,4,5,6)

q = (1,2,3,4,5,6)

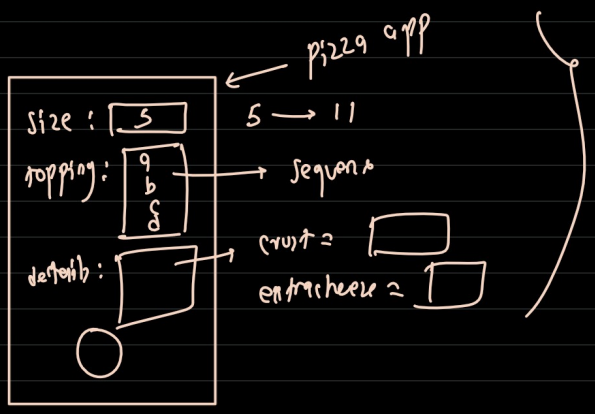
*qbc

3 argument → Tuple

```
def add_v2(a,b,*more_values):
    print(type(a))
    print(a)
    print("="*10)
    print(type(b))
    print(b)
    print("="*10)
    print(type(more_values))
    print(more_values)
```

add_v2(1,2,3,4,5,6,7,8,9,10)

10 values



libraries, Pip & PyPI

Developer → Task → Code for to-do list

- add →
- remove → function()
- edit →
- reminders →

pip → library → PyPI (warehouse)

.py → to-do list code

library → ArniTodo

→ Activate the env:

→ uv pip freeze

→ pip install library-name

playstore → Apps → PyPi

Apps ← download

↓ → pip → pip install

code

↓

library

→ Basic (completed)

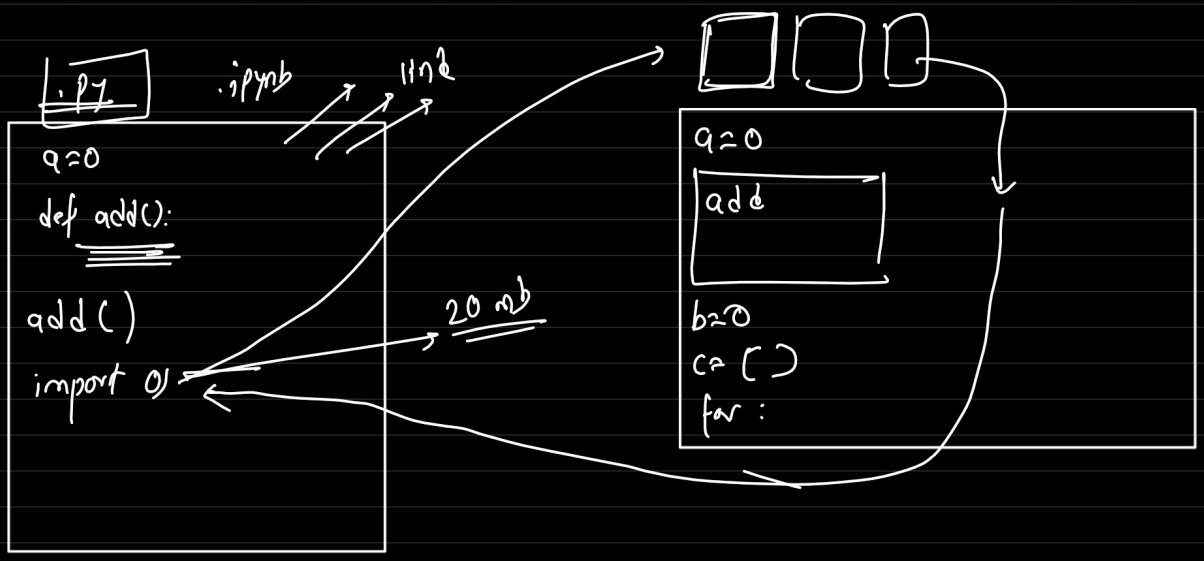
OS library

↳ open files

→ navigate through OS files

→ see folder structure & files

→ check where we are in the OS



OS → funct()
methods()

→ use of all this in Machine learning?

ML
↓
input → intelligent formula → output

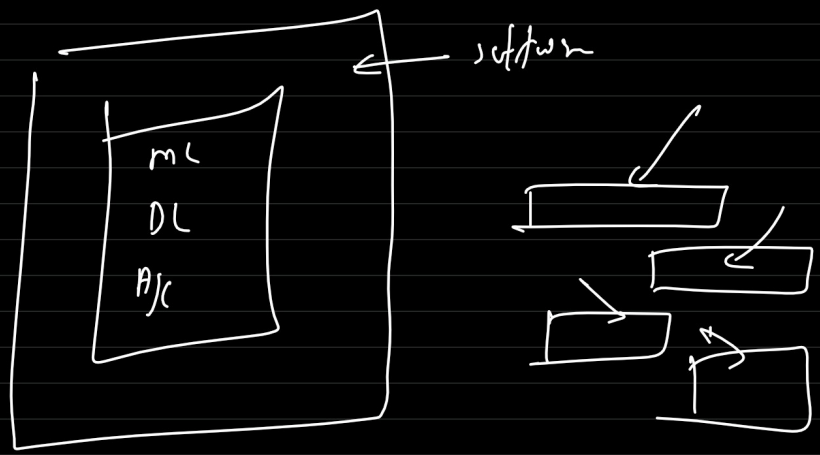
→ [function intelli fn.]

[week day] → [weather forecast fun] → Tomm weather
↓
saved → Company → app

input
↓
app → process →
↓ formula
OS ↑ saved in files

Programs

X Develop



pen prog

os.getcwd()

os.listdir()

os.path.join( )

File operations:

→ f = open(file_path) .txt → 28mb

f.read()

→ f = open(.txt)

→

→

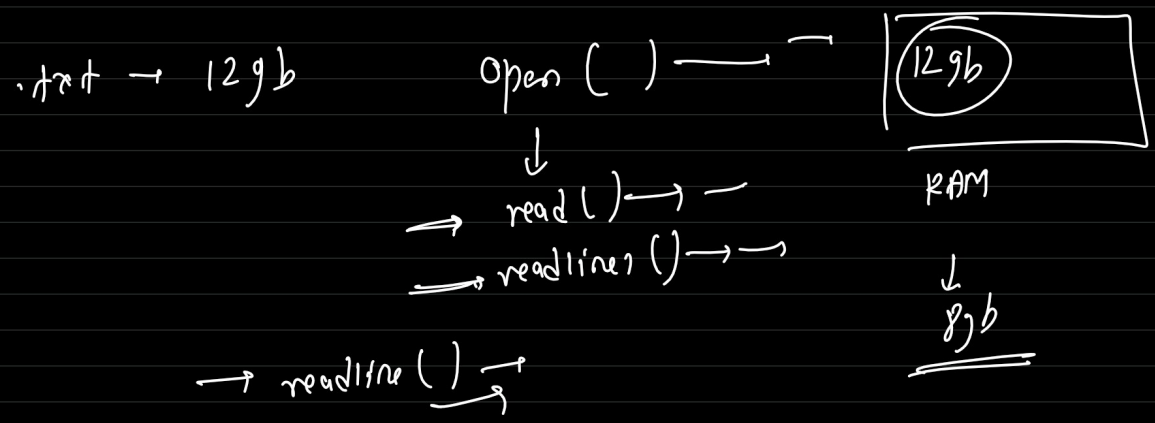
To open & read file:

f = open("path")

f.read() → reads everything at once

f.readlines() → read line by line & store each line as list value.

f.readline() → read line by line & moves pointer.


.txt → 12gb
open ( )
12gb
read ( )
readline ( )
readline ( )
RAM
8gb