

# Classes

Python

— data types

↙ str

— int

↘ float

↙ booleans

List

dictionaries

functions

libraries

≡

chunk  
piece of code →

block of  
instructions



≡ 1000 lines

File 1 → 300

File 2 → 700 lines

import

import random;

random.random()

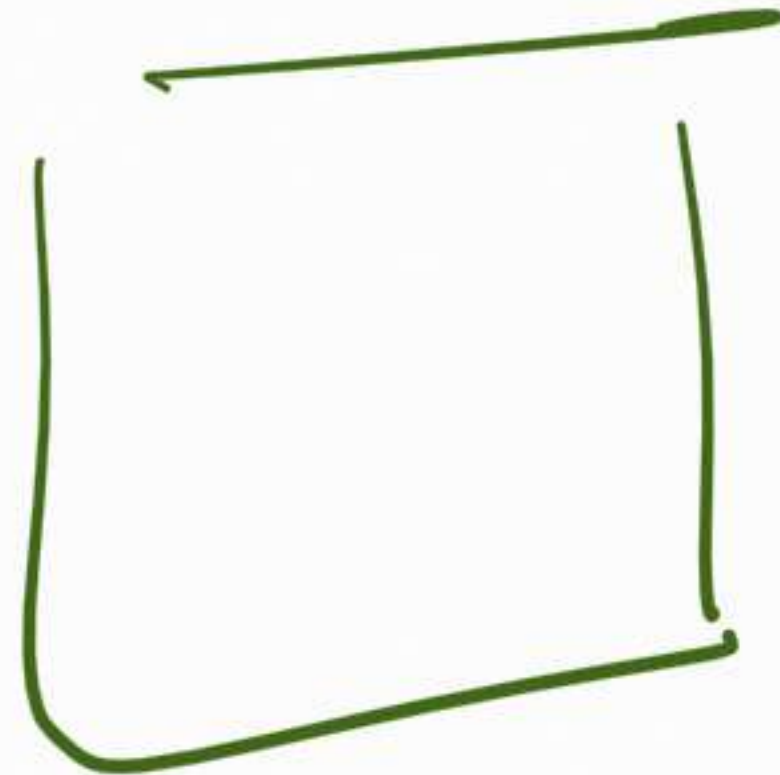
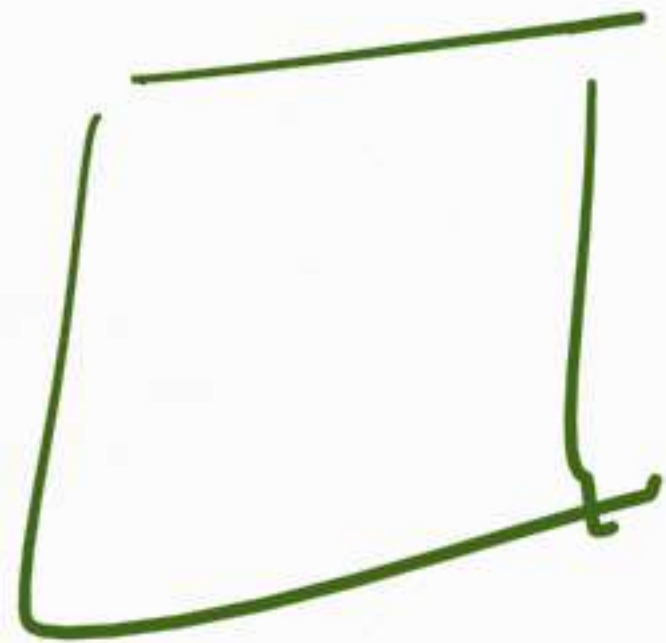
uniform

randint

python  
libraries



Libraries: way to manage functions




import library; ←  
print library.main\_fn()  
↑ use

library.py  
| def main\_fn():  
| return True  
|  
|

Stateless  
vs. stateful.

State  
- http is a stateless protocol.  
rev → |

a1  
a2  
a3  
a4

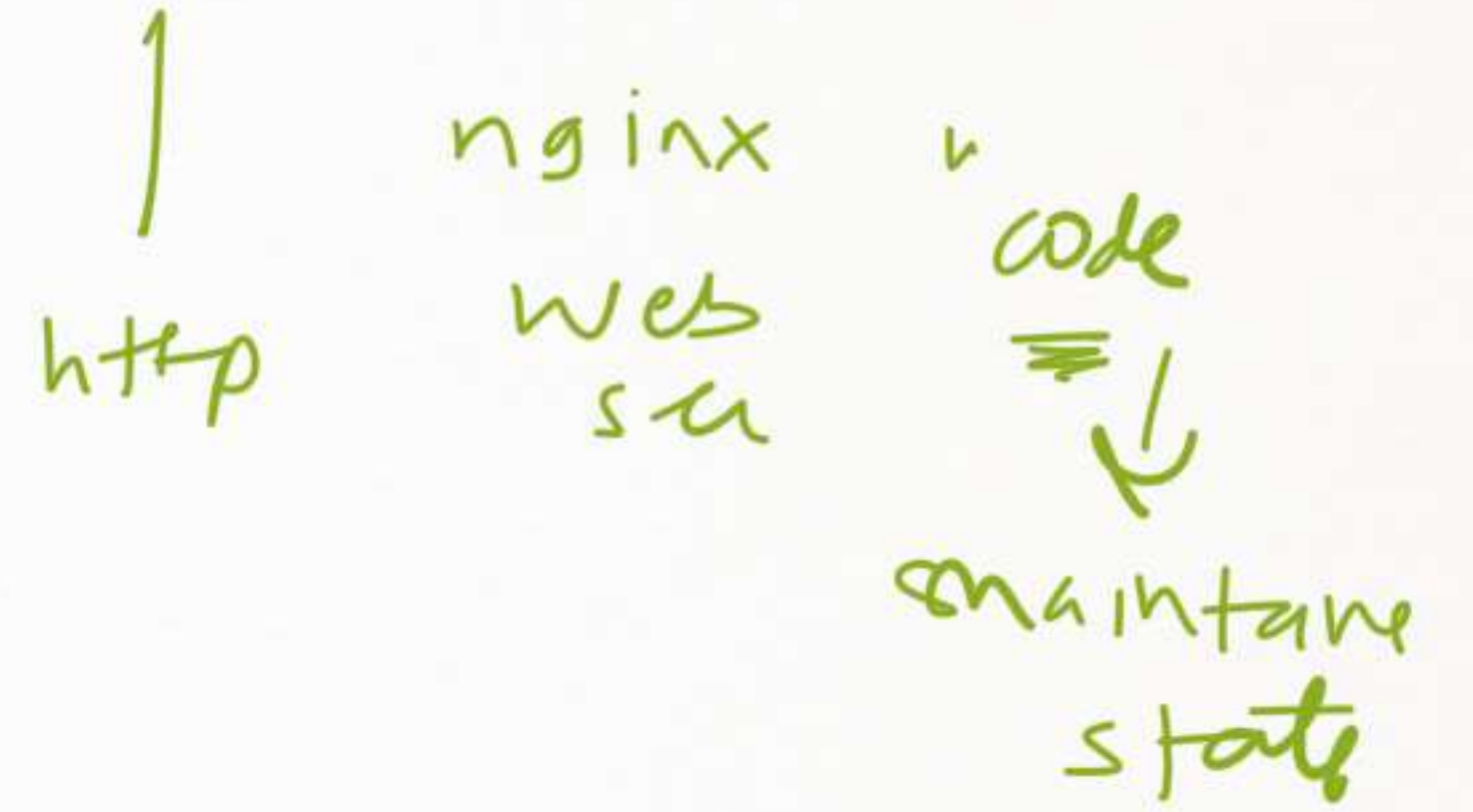


does "b" try to  
remember "details"  
about the person "b"  
is talking to



hi

hello .



tumhari age

27 ← State

tum to mujhe bade ho  
hain

tum kaha ke ho

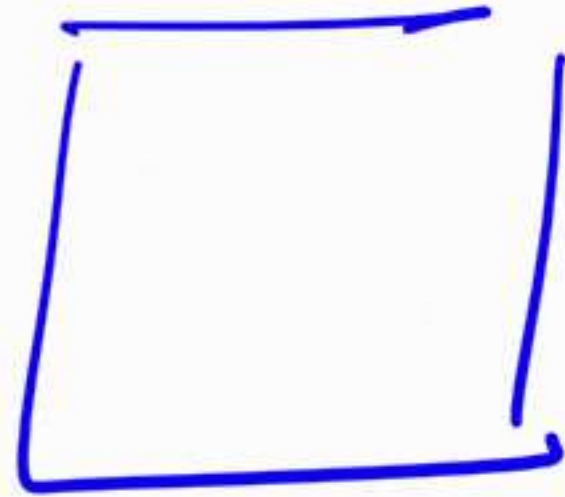
Gurgaon

Gurgaon mei 27 km ke 17 lac baadke hain

← answer

Library

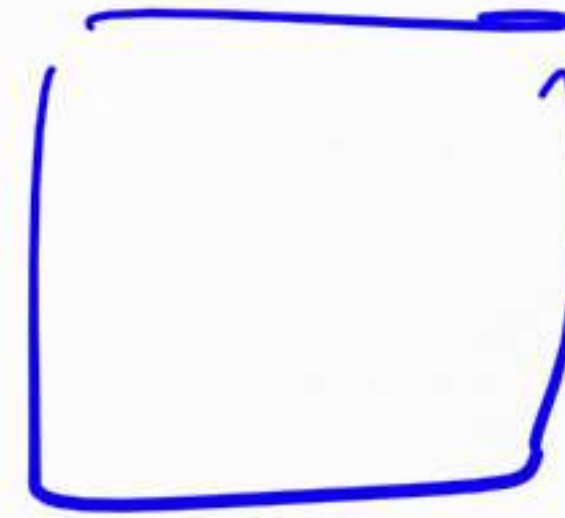
stateless  
implementation



f1. → use

Classes

— maintain  
state



f2. →



import



Kya f2 is "f1"

ki state pata hai?

kei bhi info



import random

random.random() ;  
stateless



2) library functions

very imp

use

meri information hai

a = [1, 2, 3, 4]

state ✓

a

pop()

a

append()

a

extend([3, 4])

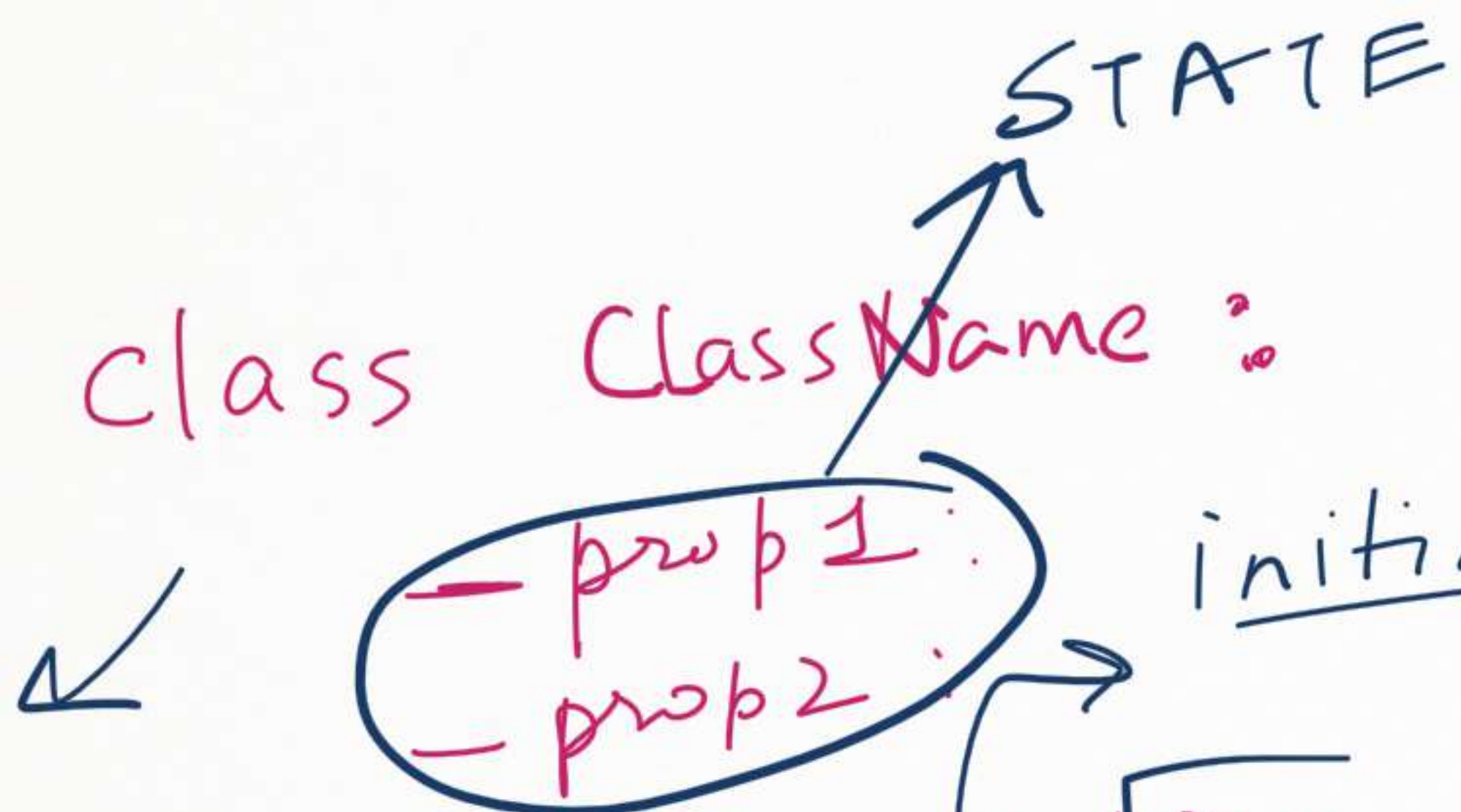
Object functions



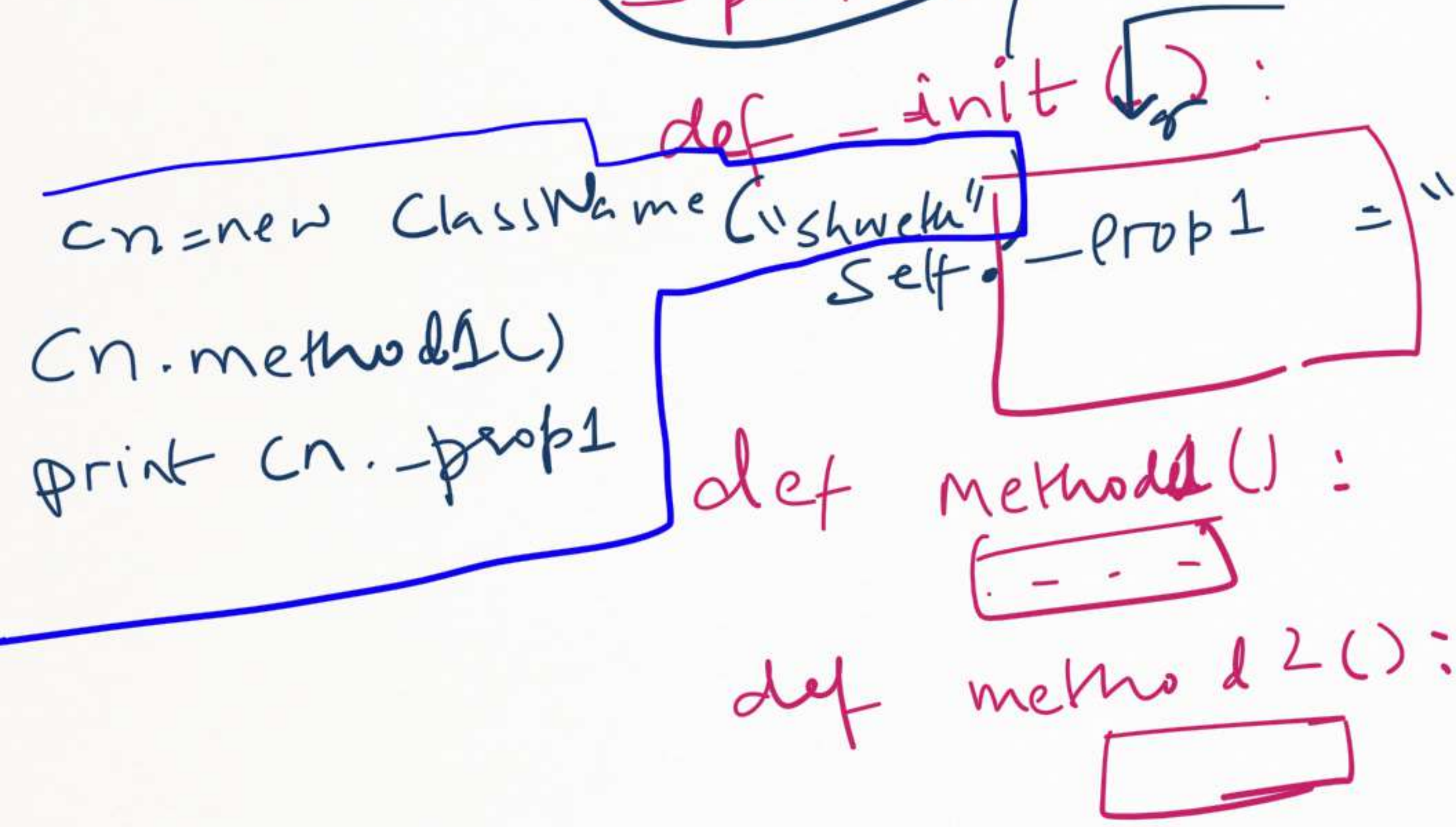
Object ka use  
extend.

3)





Variables  
are  
called  
properties



functions  
are called  
method



```
class NgGirl:
```

```
    - name = ""  
    - nakhree = []  
    - state = ""  
    - bf = []
```

age = 0

```
def init(self, name, state):
```

```
    self.-name = name
```

```
    self.-state = state
```

```
def addNakhra(self, nakhra):
```

```
    -nakhree.append(nakhra)
```

```
def isEligibleForBf():
```

```
    if self.-state == 'Delhi' && self.-age > 10:
```

```
        return True
```

isse hum us object  
ki properties access  
kare hain

state

ye object ki  
properties hai

self uss object ka  
"reference" hai

self.age = age



```

self.addNakhus(" ")
elif self._state == "Naryana" && self._age >= 18:
    return True

```

```

elif len(self._nakhus) > 5:
    return True

```

Kalpana = new Ng Girl ("kalpana", "mp", 27)

Kalpana.isEligibleForBF()

Kalpana.addNakhus("sharmate\_reh")

↓  
addNakhus(Kalpana, "Sharmate\_reh")

How to  
use a  
- class

- 1) declare an object
- 2) have fun 



CLASSES

OBJECT / instance

iski property Girl.



isko bhi  
mil jata hai

Ng Girl

↑ inherit from

Student  
↑ inhe,  
Alumni

INHERITANCE

ABSTRACTION



POLYMORPHISM.



# DATABASE

db = new

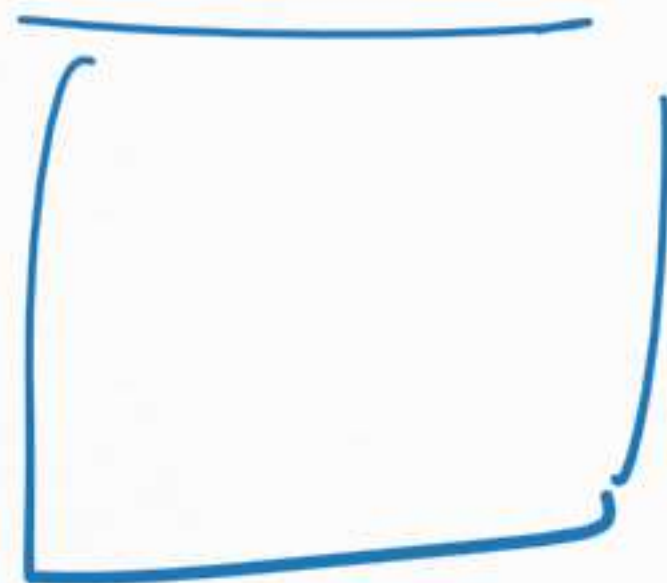
PickleDB("hello.db")

db.get("key-name")

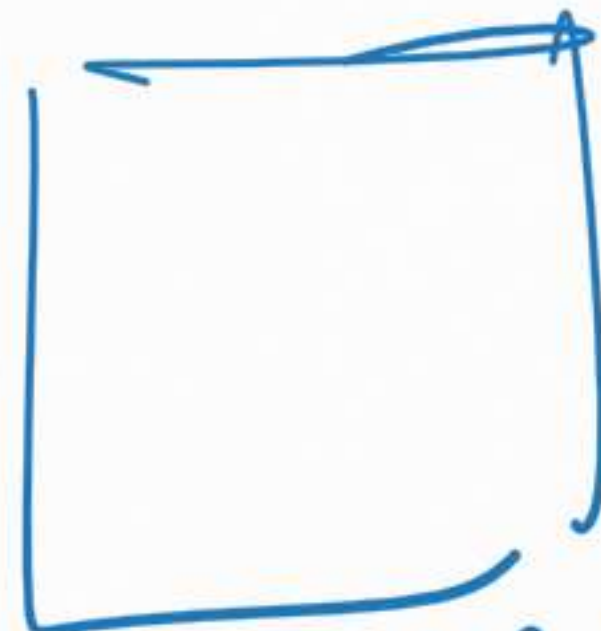
db.set(key, value)

db.dump()

Object par  
functions →



use



MeraDB.py.

— fileName = "hello.json"

— autoLoad = False

— jsonObj = {}



```
[ db1 = new MerxDb ("1.db")  
  db2 = new MerxDb ("2.db")
```

```
[ db1.set ("key", "value 1")  
  db2.set ("key", "value 2")
```

```
[ db1.get ("key")  
  db2.get ("key")
```