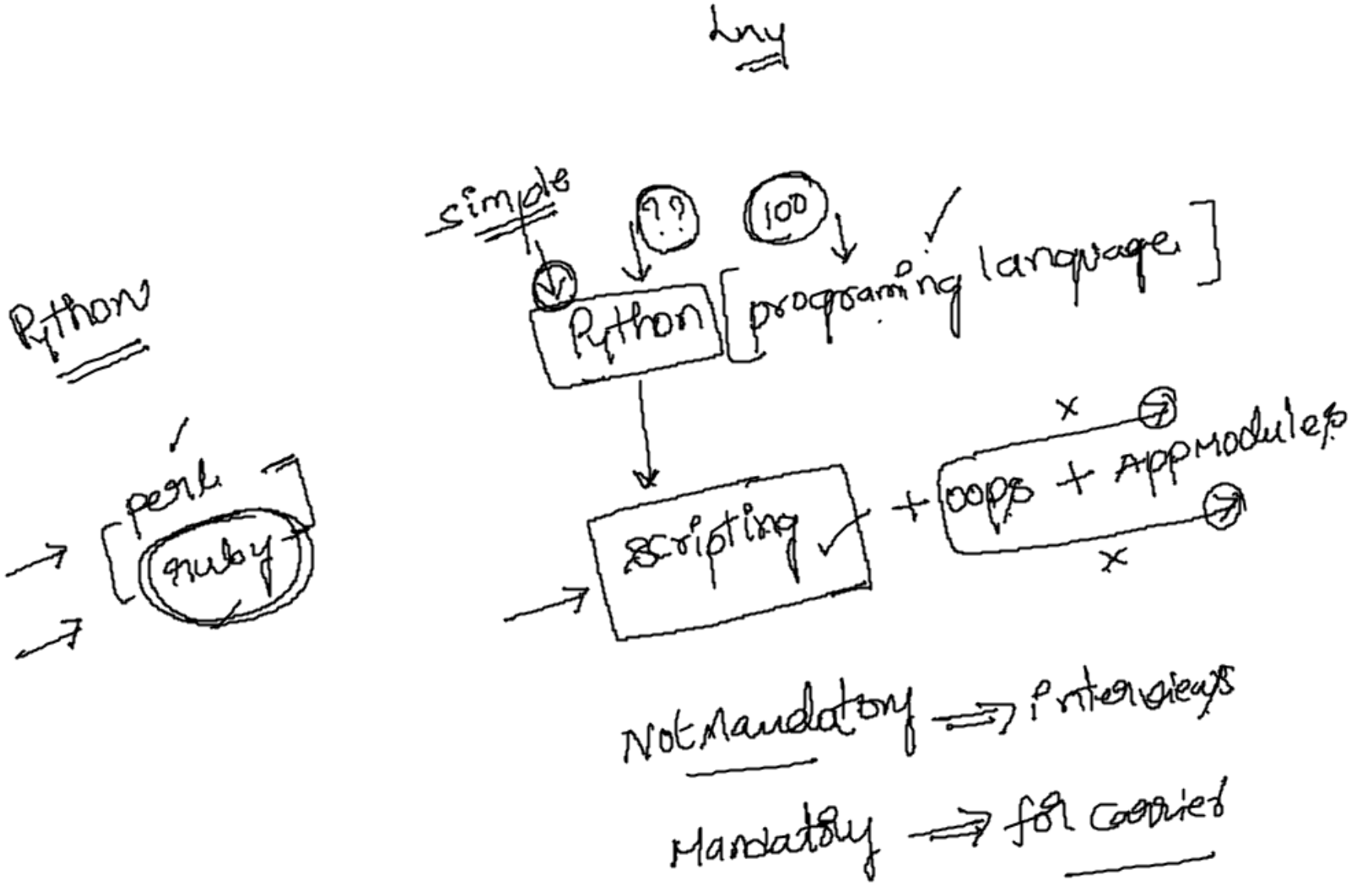

Intro
simple
??
100
Python
programming language
Python
perl
ruby
scripting
+
oops + appmodules
x
x
Not mandatory ⇒ interviews
Mandatory ⇒ for carried

startline

shell

```
#!/bin/bash
```

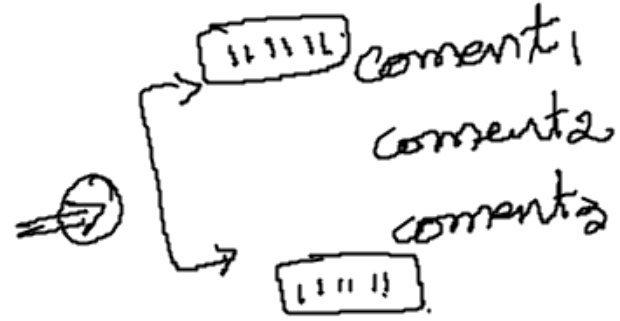
Python

```
#!/usr/bin/Python
```

Comment

```
# comment line1
```

```
# comment line1
```



variable

```
var1 = 10
str1 = "something"
```

```
var1 = 10
str1 = "something"
```

Shell

Access → echo $var1

↓

o/p var1 value

Python

print var1

↓

o/p: of var1 value

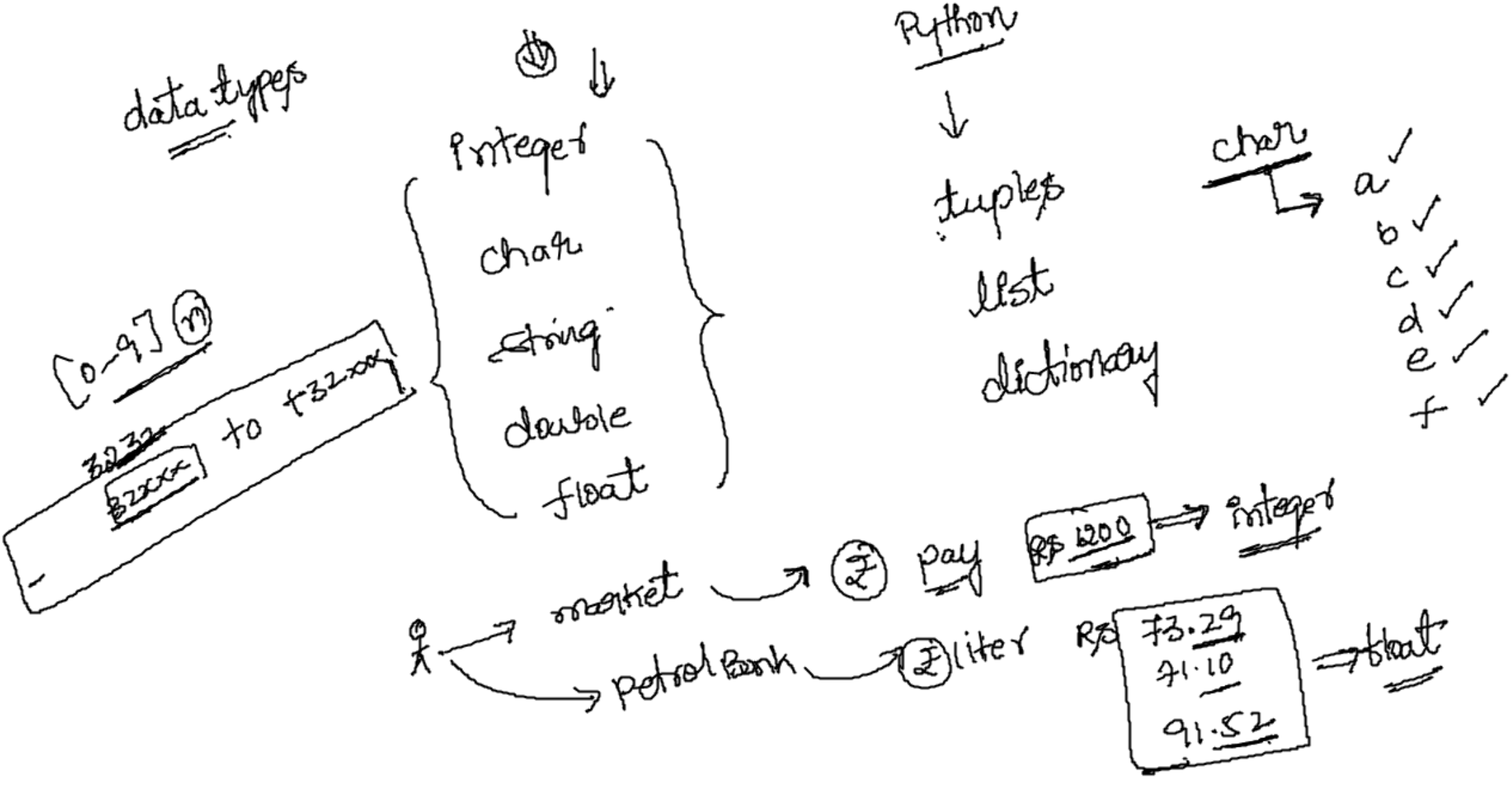
Python
- 2.x → print var1
- 3.x → print(var1)

$a = 10 ; b = 20$

print a, b ⇒ o/p: 10 20

desired o/p:- ⇒ "my value of a is", 10 "and value of b is", 20

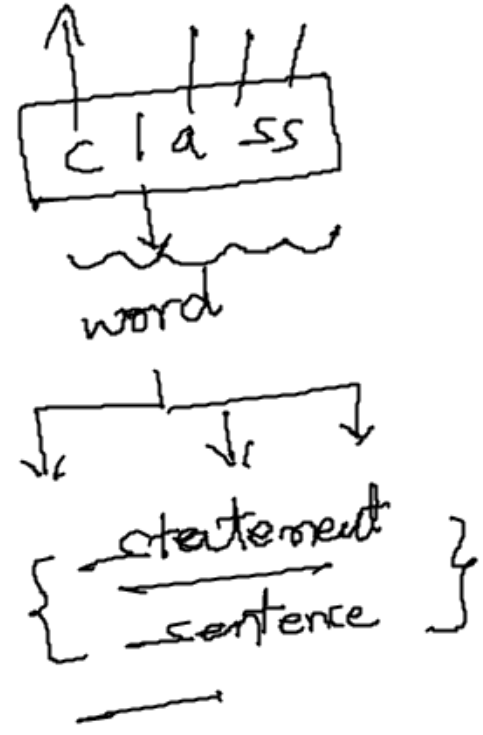
∴ "my value of a is", a, and value of b is", b


data types
Integer
char
string
double
float
[0-9]
-32768 to +32xxx
Python
tuples
list
dictionary
char
a
b
c
d
e
f
market
pay
Rs 4200
integer
petrol Bank
liter
Rs
73.29
71.10
91.52
float

string → Any English word

* Group of characters *

var1 = "Hi Team welcome to dept"



list :-

0 1 2 3 4

lis1 = [10, 20, 30, 40, 50]

print lis1 ⇒ 20 (O/P)

lis1 = 20 ⇒

O/P

30

Index value ⇒ 0 1 2 3 4

lis1	10	20	30	40	50

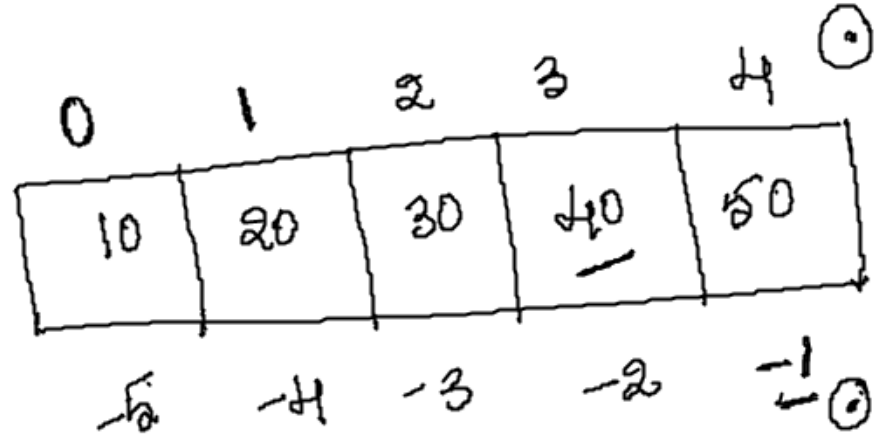
O/P

lis1[2] ⇒ 30

lis1[3] ⇒ 40

lis1[4] ⇒ 50

lis1 =



o/p

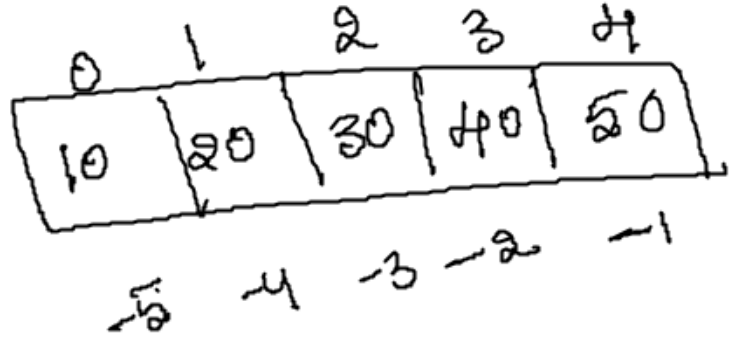
lis1[3] (or) lis1[-2] ⇒ 40

lis1[4] (or) lis1[-1] ⇒ 50

tuple

tup1 = (10, 20, 30, 40, 50)

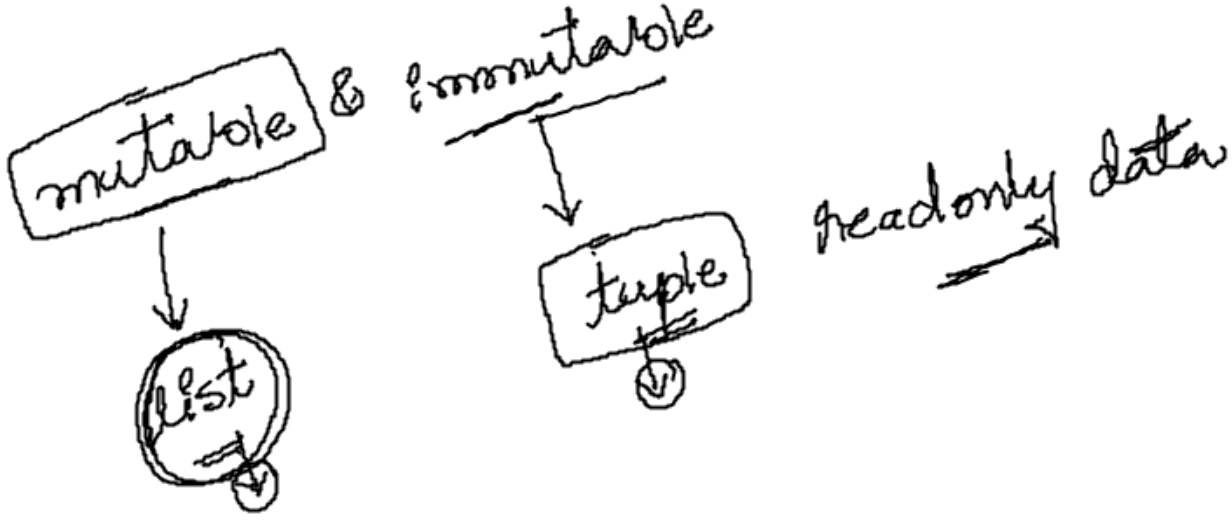
tuple ≠ list



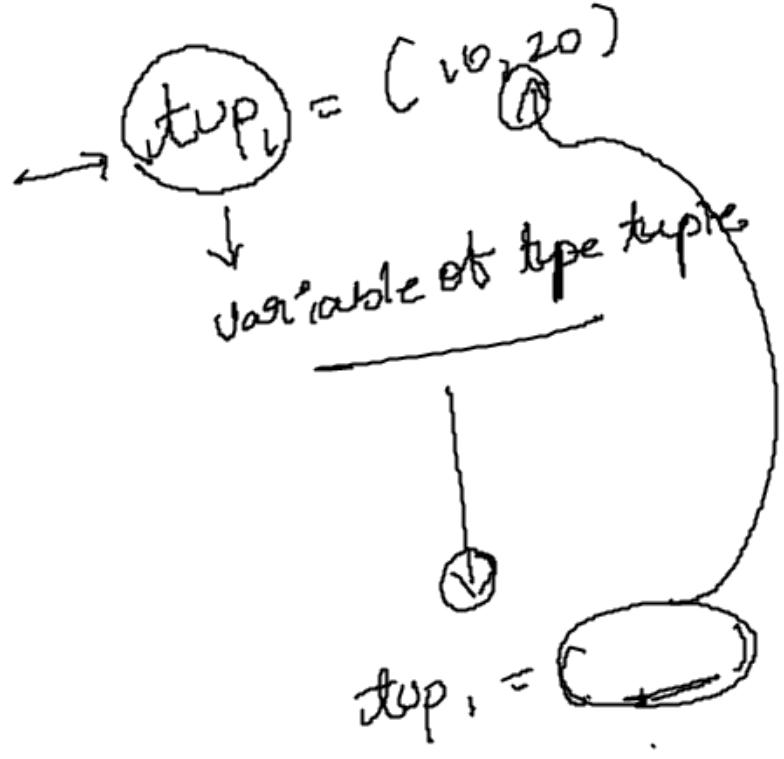
tup1[2] & tup1[-3]

O/P

30


mutable
&
immutable
list
tuple
readonly data

dictionary



dictionary ⇒ [key & value]

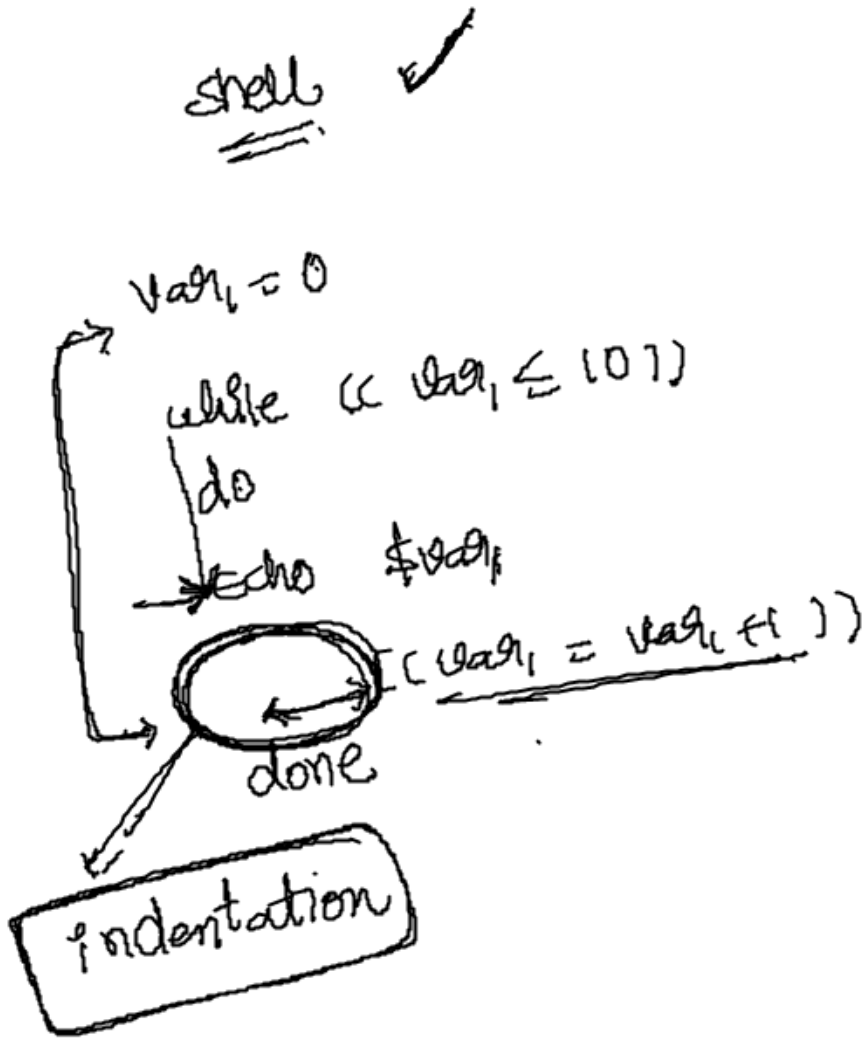
unique

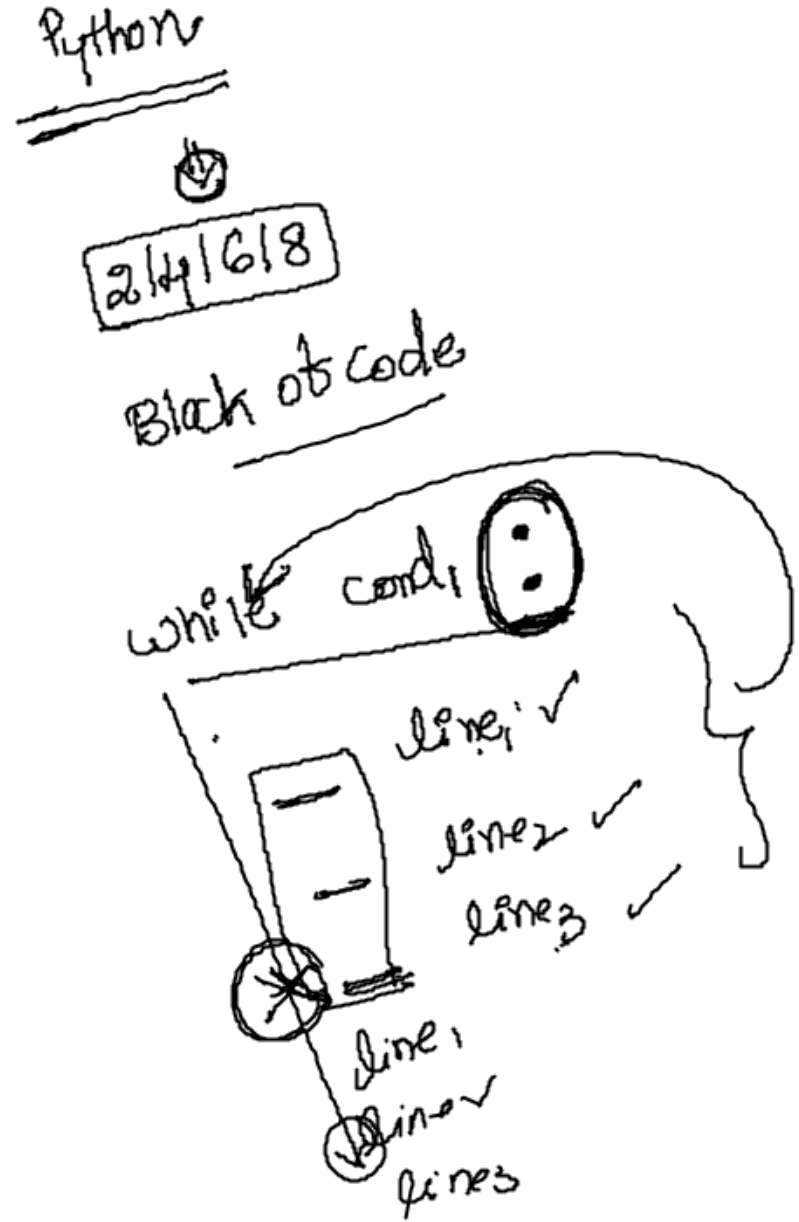
dict1 = {
"key1" : value1,
"key2" : value2,
"key3" : value3
}

o/p

dict1["key2"] ⇒ value2

dict1["key3"] ⇒ value3


shell
var1 = 0
while ((var1 <= 10))
do
echo $var1
((var1 = var1 + 1))
done
indentation


Python
2|4|6|8
Block of code
while cond1
line1
line2
line3
line1
line2
lines

Conditional shell

```
if Cond1
then
  line1
  line2
else
  line3
  line4
fi
```

Python

Simple

```
if cond1:
    line1
    line2
```

indentation: 2|4|6|8

(If-else)

```
if cond1:
    line1
    line2
else:
    line3
    line4
```

Shell

```
if cond1
then
    line1
elif cond2
then
    line2
else
    line3
fi
```

Python

```
if cond1:
    line1
elif cond2:
    line2
else:
    line3
```

operators

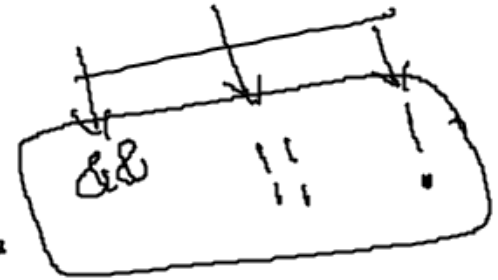
Relational → >, <, <=, >=, !=

Boolean → true, false

Arthimetic → +, /, -, *, %.

Conditional → and, or, not

Shell →



Reading a value

Integer values

```
var1 = input("text")
```

string values

```
str1 = raw_input("text")
```

Python 3
↓
(input)

① → score of a student

```
if score <=100 and score >= 80:
    print "Grade A"
elif score <= 79 and score >= 60:
    print "Grade B"
elif score <= 59 and score >= 35:
    print "Just passed"
else:
    print "failed"
```

loops (while, for)

No.'s 1 to 1000 {1..1000} (shell)

range(10) ⇒ [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

range(5) = [0, 1, 2, 3, 4]

range(1,5) = [1, 2, 3, 4]

range(1,6) = [1, 2, 3, 4, 5]

{1...20}

range(5) = [0, 1, 2, 3, 4]

range(1,5) = [1, 2, 3, 4]

range(1,10,2) = [1, 3, 5, 7, 9]

(2) numbers

range(0, 11, 2)

[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

[0, 2, 4, 6, 8, 10] (12)

(0, 11, 2)