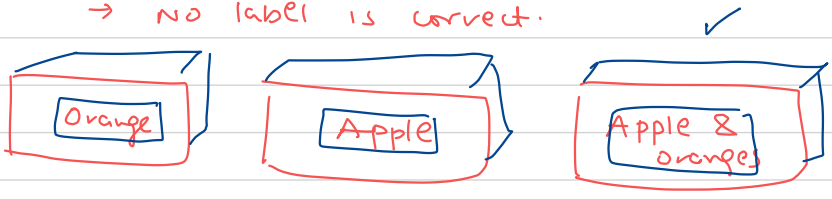
Intro to Java 03

- Installation
- Datatypes → Primitive
  → objects
- Conditional Statements

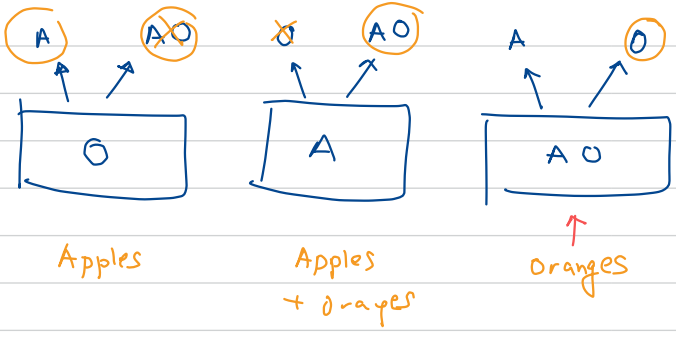
Puzzle

→ All labels are shuffled
→ No label is correct.



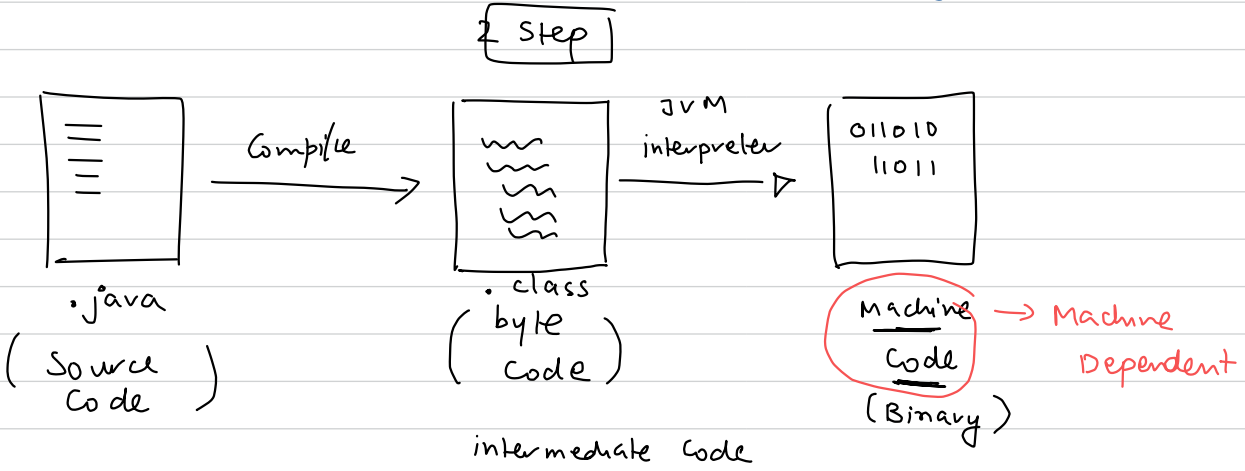
→ Draw one fruit from any box to identify.
→ which box you can pick?

Solution:

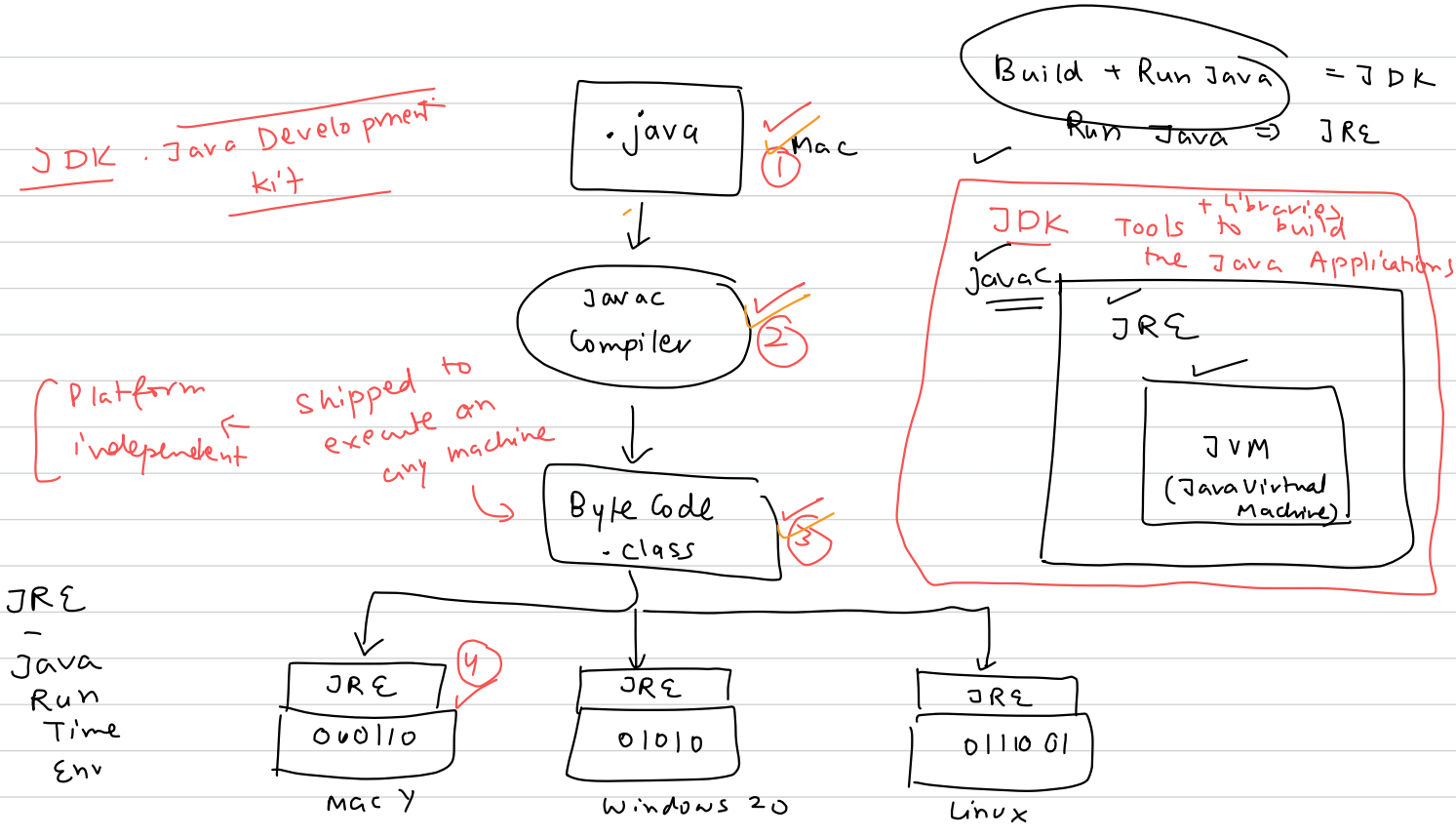


[Introduction to Java]

Flowcharts → Pseudo code → Code (Java, Python, C++, JS)



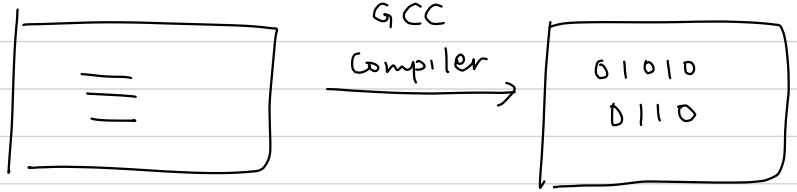
- Java is known to be platform independent


JDK . Java Development kit
.java
Mac
1
Javac Compiler
2
Platform independent
shipped to execute on any machine
Byte Code .class
3
JRE - Java Run Time Env
JRE
000110
4
Mac y
JRE
01010
Windows 20
JRE
01110 01
Linux
Build + Run Java = JDK
Run Java ⇒ JRE
JDK Tools + libraries to build the Java Applications
Javac
JRE
JVM (Java Virtual Machine)

Build Process → many mins

[10 mins
5 mins]

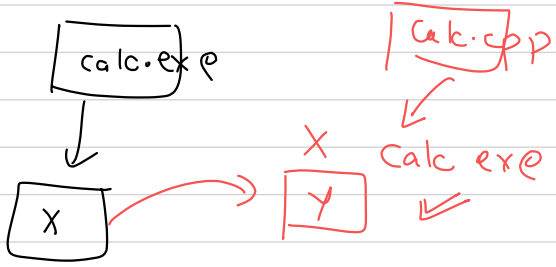
C++



• cpp

• exe

Specific to the machine on which code is compiled.



Intellij → Community Edition

Datatypes

Data

- Primitives — that can't breakdown
  - int — 4
  - float — 3.14
  - char — 'a'
  - boolean — True / False
- objects
  - "Hello" — String

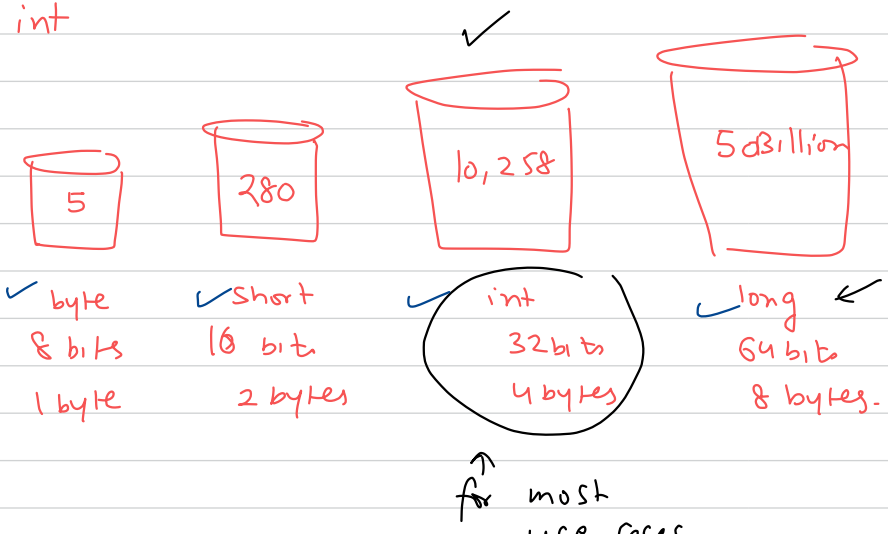
PaintBrush

color.
size
cost.

object

int

Numbers



int = 56

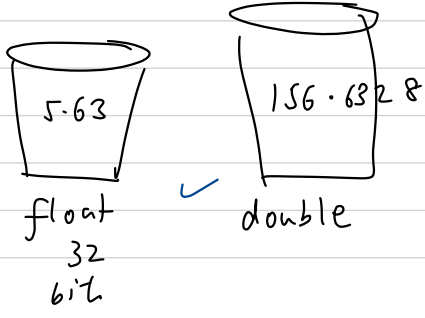
↓

1100 10

char

boolean

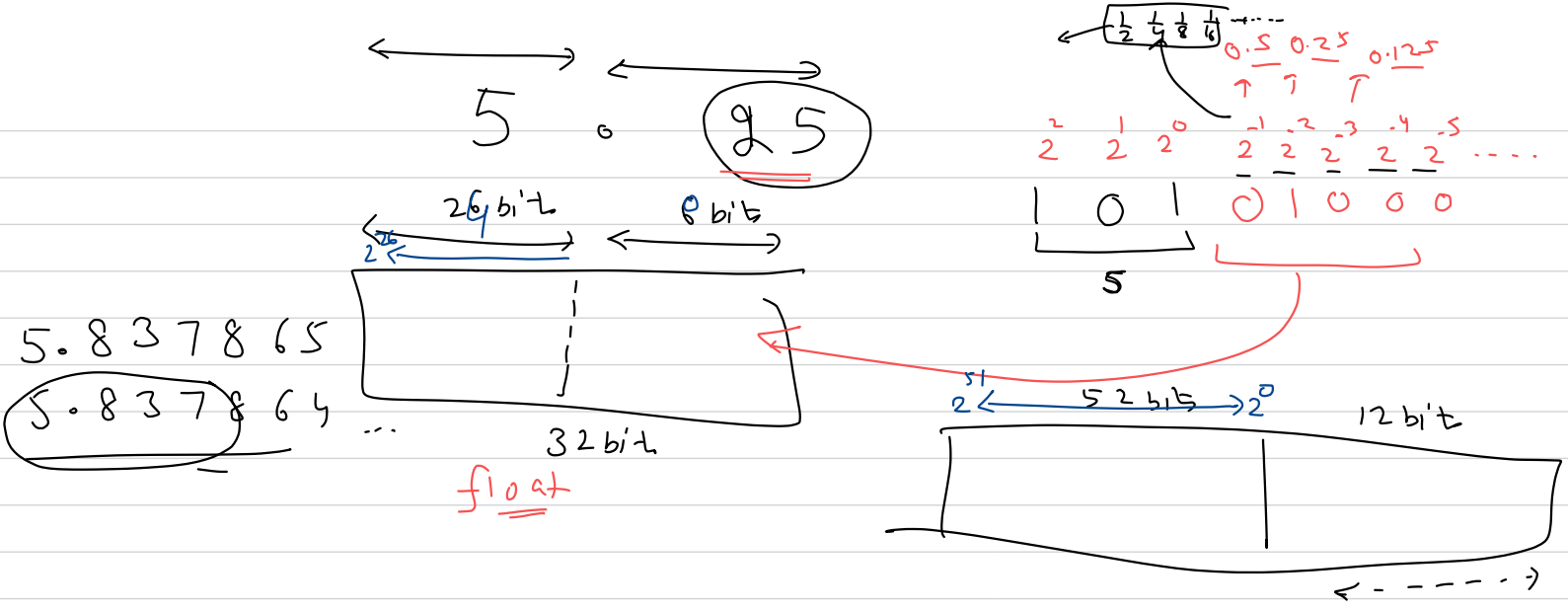
float



5.25

↓

bit?



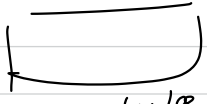
@ - —

- —

A - 65

a - 97

char



2 bytes = 16 bit

int

$x = 5$

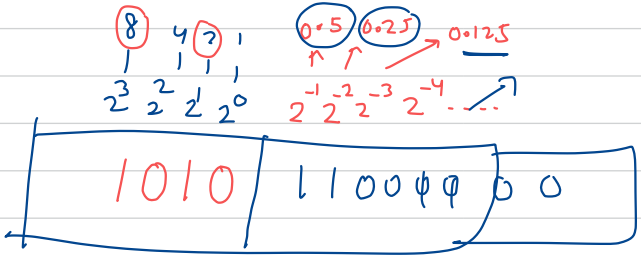
int

$y = 5.5$

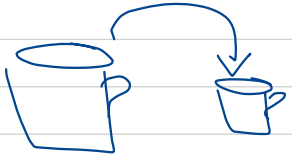
double

long x = 5l;

float y = 5.5f;



0.75 + 0.25

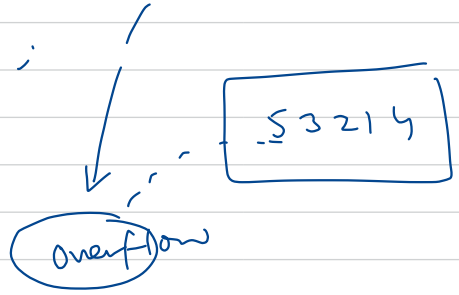


overflow

0.79
− 0.5
0.29
0.25
0.04

long x = 589126 53214

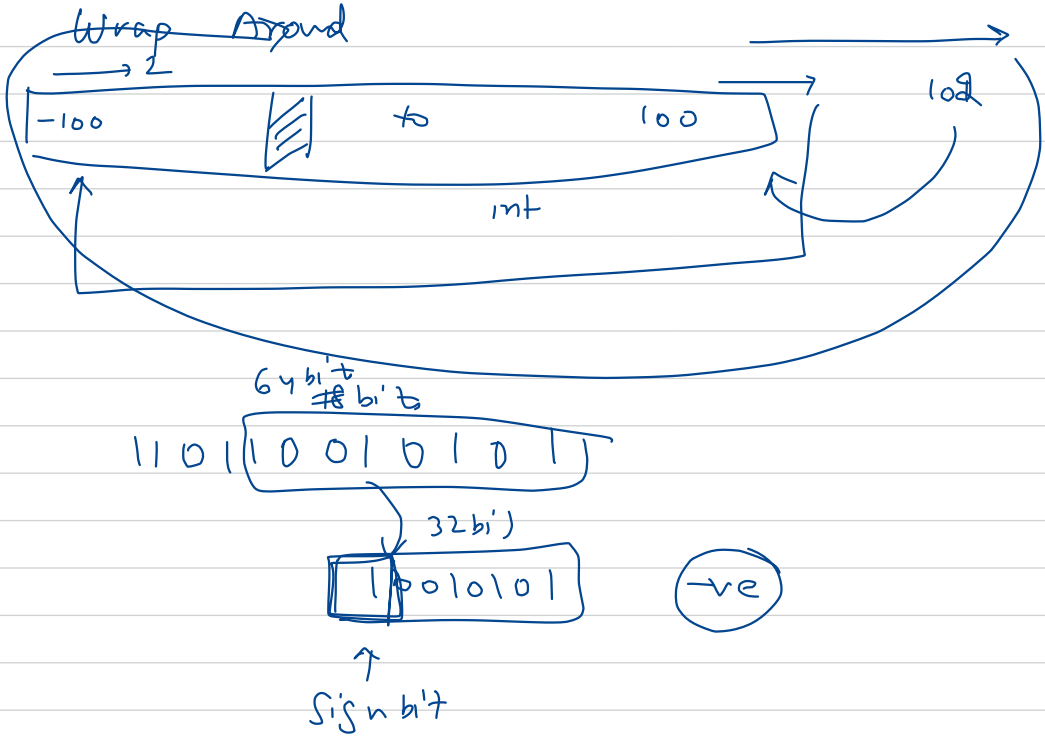
int y = (int) x ;



- Never put a big bucket inside a small bucket

↓

overflow


Wrap Around
-100
to
100
102
int
64 bit
1101 1001 0101
32 bit
1 0010101
-ve
Sign bit

Int a1

Objects

↳ Property

↳ Behaviour / Action

→ Programmer

→ JDK Predefined

Object

Cat

→ Name:
→ Age
→ Color
→ Ht
→ wt

Actions
→ eat()
→ sayMeow()
→ run()
→ jump()

CLASS (Template)

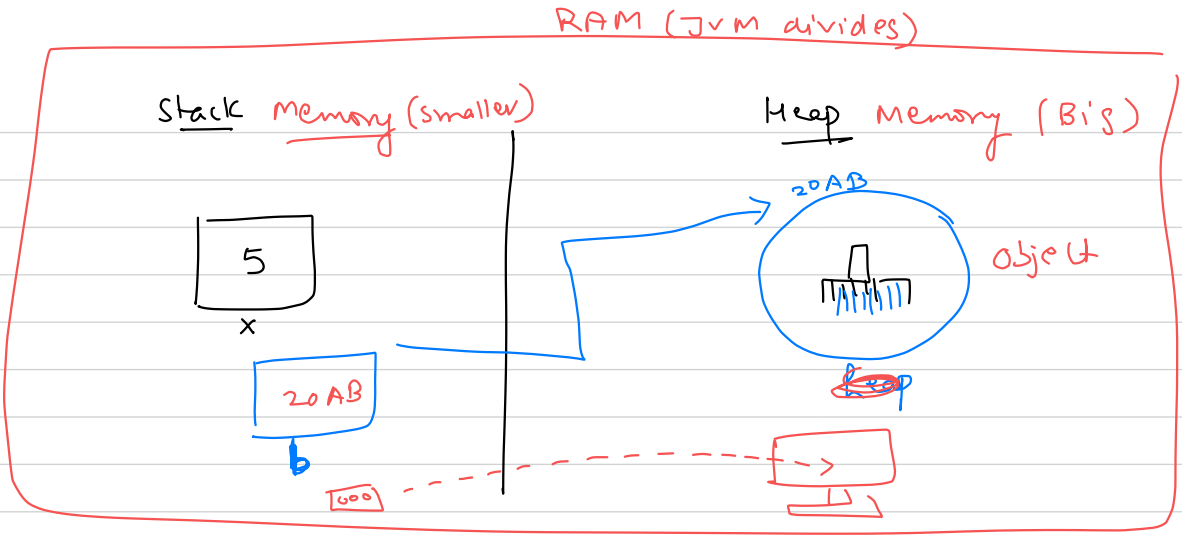
→ Color
→ size
→ type

Actions
→ paint()
→ changeColor()
→ erase()
→ setSize(16);

b.paint()
b.change

PaintBrush b = new PaintBrush("Blue", 5, Regular)

Cat myCat = new Cat("Lucy", 2)




```
int x = 5
```

```
PaintBrush b = new PaintBrush("Blue");
```

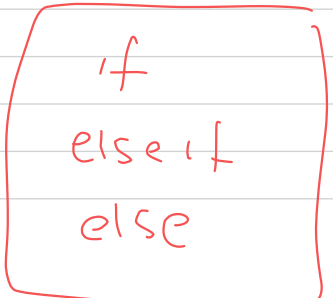
b ← object Reference

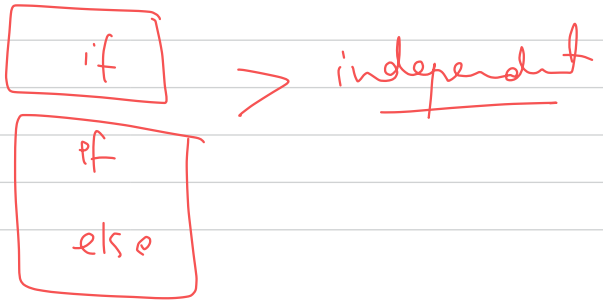
Branching

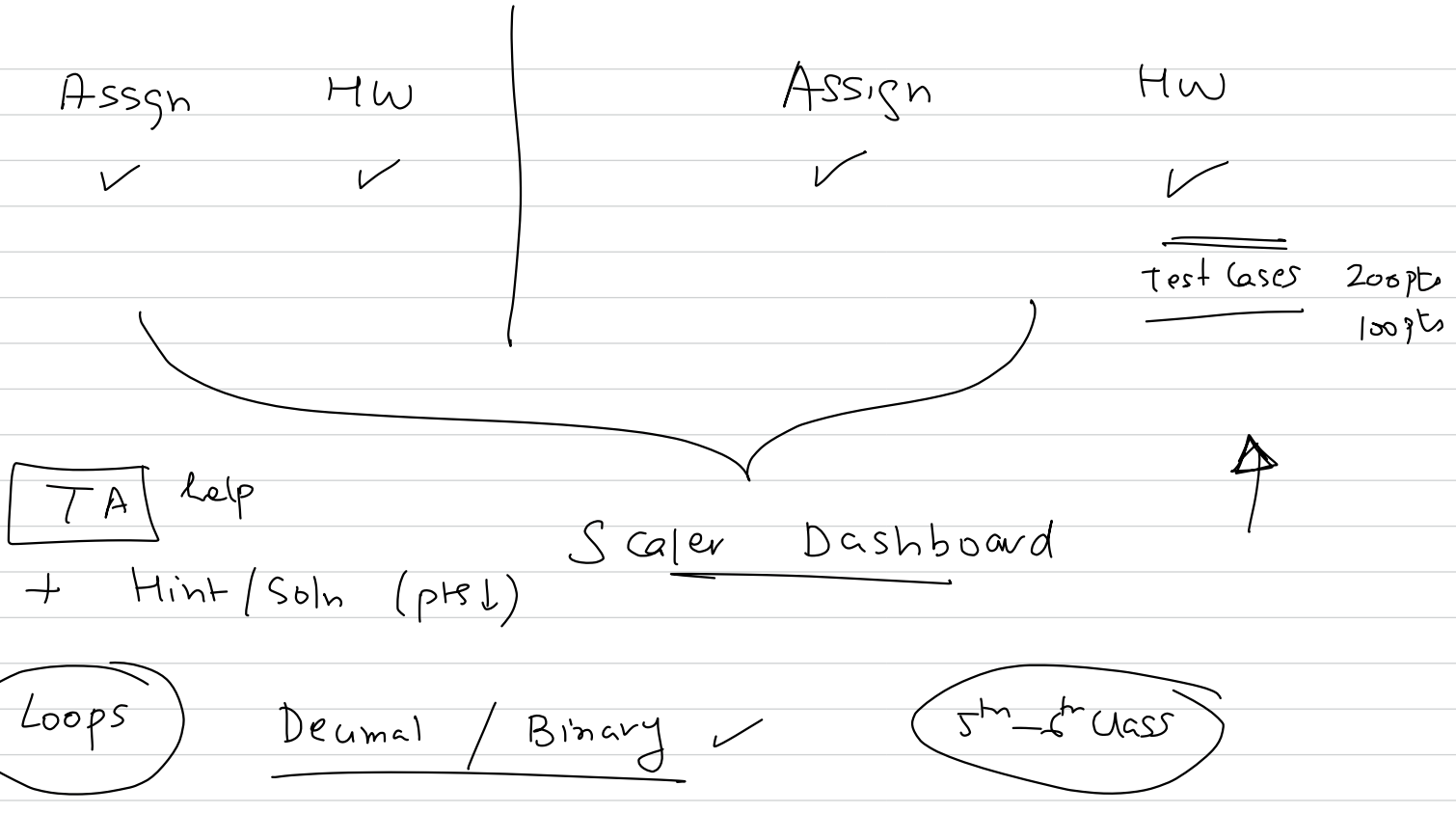
marks = 90

```
if (marks > 80){
    System.out.println(b);
        Sout ("Party");
}
```

single - if



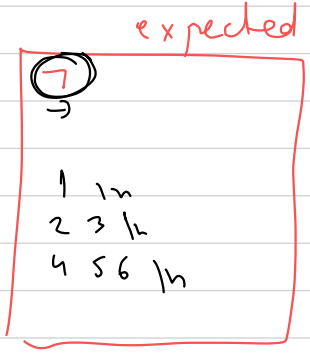


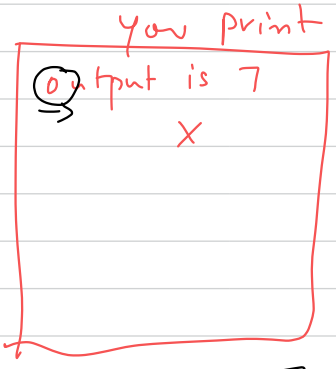

Assgn
HW
Assign
HW
Test Cases
200pts
100pts
TA
help
+ Hint / Soln (pts↓)
Scaler Dashboard
Loops
Decimal / Binary
5th - 6th class

Online judge

↓

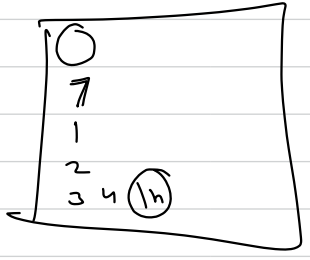
Not intelligent





X wrong Ans

✓



X