Welcome Everyone

DSA
- → Refresher → Revising Java / Learning Java } → 1 month
- → Intermediate → Basic DSA → 1mm2
  - → Implementation of DSA → 4 month
- → Advance → Implementation of DSA

Language (Java)
- → OOPs
- → Memory
  - → Etc

Projects
- → elective
- Backed / frontend

LLD & MLD

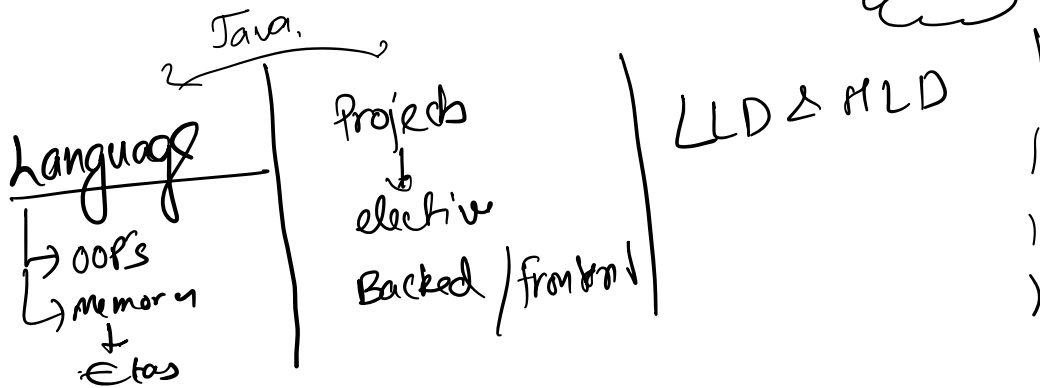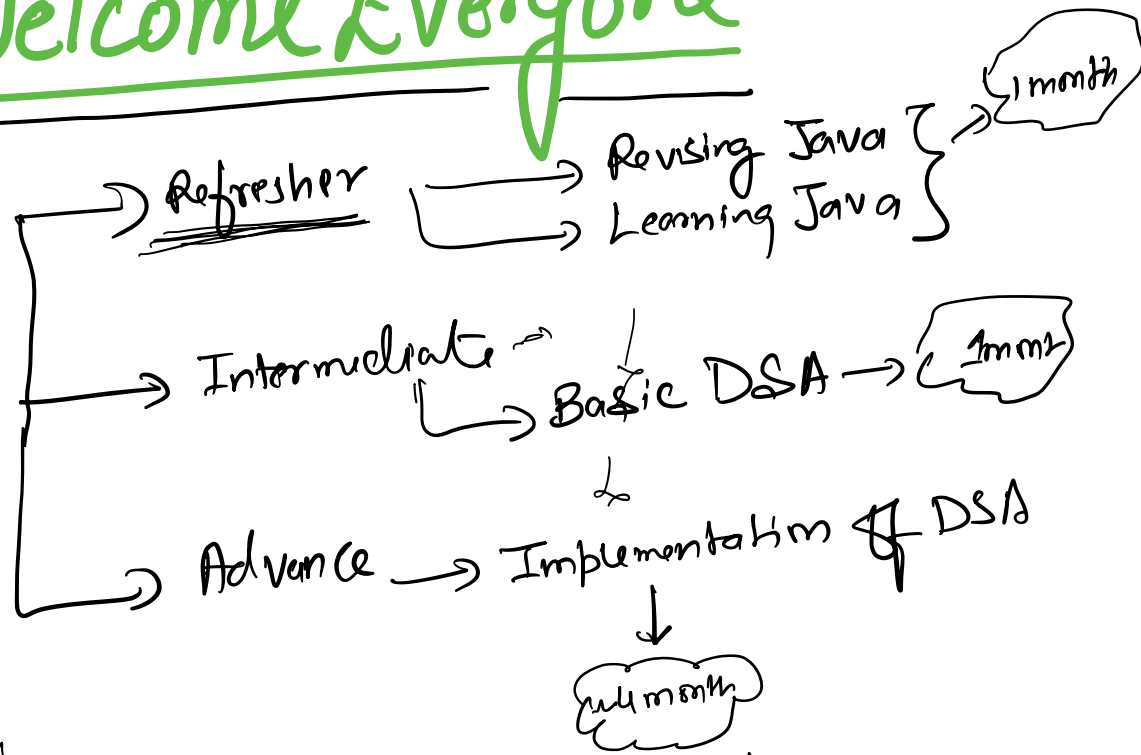## Structure Of Class

→ 9:05 pm Sharp

→ reply private - Q/Ans

→ Question → Chat, Question

Start : 9:15 pm
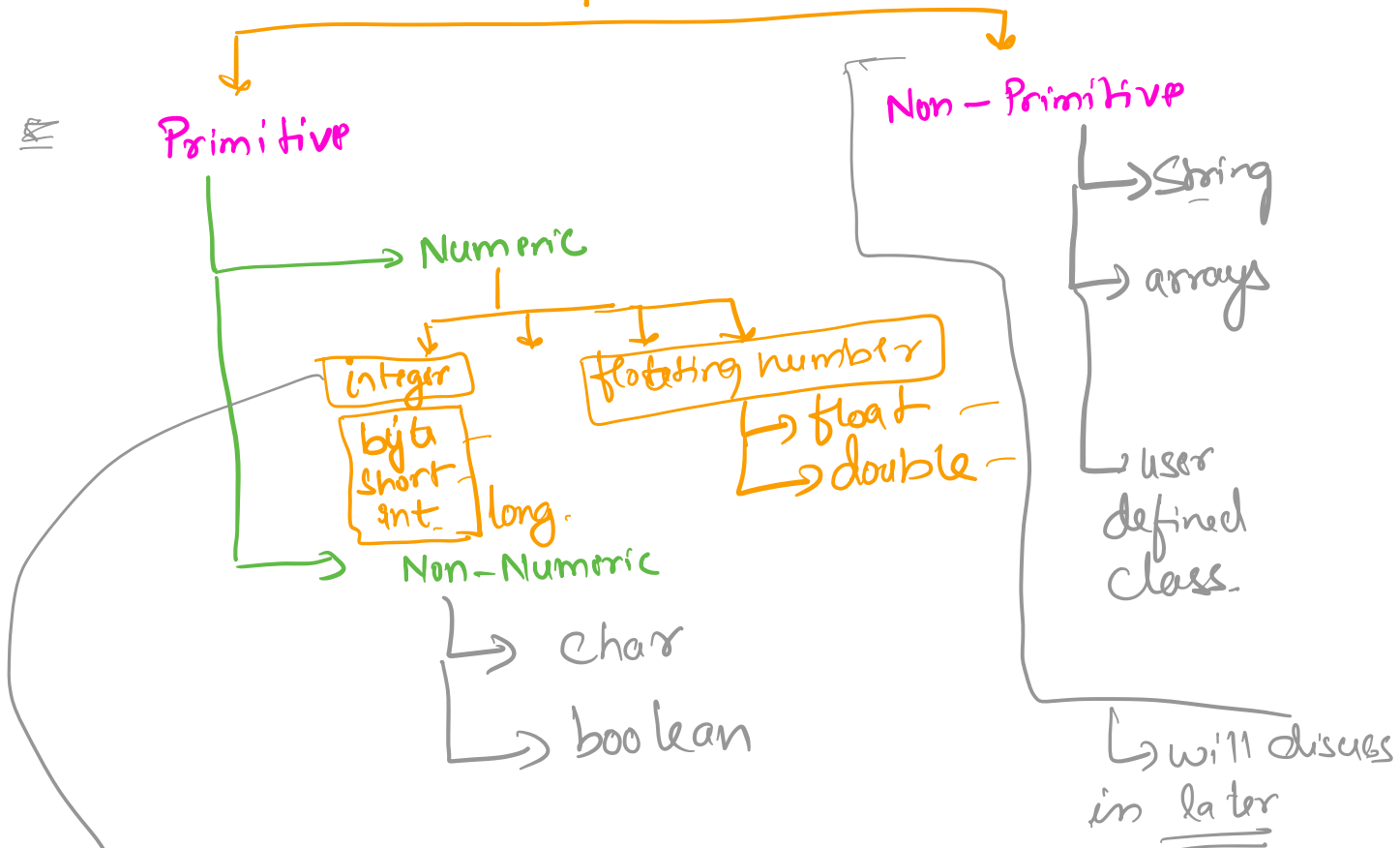
REFRESHER CLASSES.

1> Intro [Today's Class] —
2> If - else
3> while
4) For
5> Patterns
6) Functions
7> 1d array
8> 2d array
9> Arraylist
10> Strings
11> Hashmap & HashSet

DATA TYPES

Primitive

→ Numeric

integer → byte, short, int, long.

floating number
↳ float
↳ double

→ Non-Numeric
↳ char
↳ boolean

Non-Primitive
↳ String
↳ arrays
↳ user defined class.
↳ will discuss in later

Integer :→ whole number.

$\llcorner\!\!\to$ Byte $[-2^7$ to $2^7-1]$

$\llcorner\!\!\to$ Short $[-2^{15}$ to $2^{15}-1]$

✓ * $(-10^9$ to $10^9)$

$\llcorner\!\!\to$ int $[-2^{31}$ to $2^{31}-1]$

✓ * $(-10^{18}$ to $10^{18})$

$\llcorner\!\!\to$ long $[-2^{63}$ to $2^{63}-1]$

Floating Number :— Decimal

$\llcorner\!\!\to$ float $\simeq 7$ decimal number

3.00000 precision

$\llcorner\!\!\to$ double $\simeq$ 15 decimals

Strings $\longrightarrow$ " string. "

$\llcorner\!\!\to$ list of characters

Case 1

50ml
(int)

100ml.
(long)
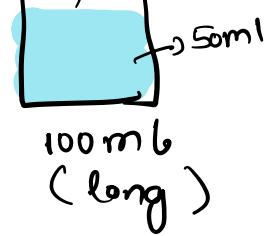
Case 2

50 ml
(int)

100 ml
(long)

Case 3

50 ml
(int

→ 100 ml water

100 ml.
(long)
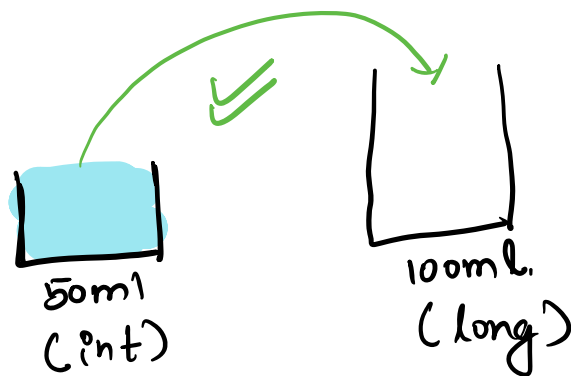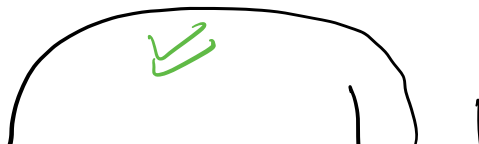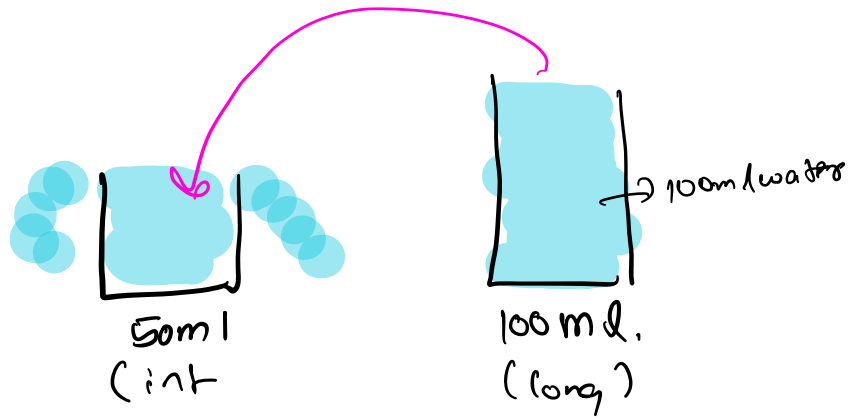
1 → you can typecast from smaller datatype to bigger type.

2 → you can typecast from bigger datatype to smaller datatype considering the value is in range of smaller datatype.

3 → you cannot typecast from bigger to smaller if range is above smaller datatype

example 1

```
int i = 5;
long I = i;
```

```
Sysout (I);        ans = 5
```

example 2

```
long I = 100,000,000,000L;
int i = I;
Sysout (i);
         └→ error  ⟹  lossy
                        conversion
```

example 3

```
long I = 1000 L;
int i = I;
sysout (i);
         └→ error will be
                   there.
```