Aarnav Jindal

Product Manager - Scaler

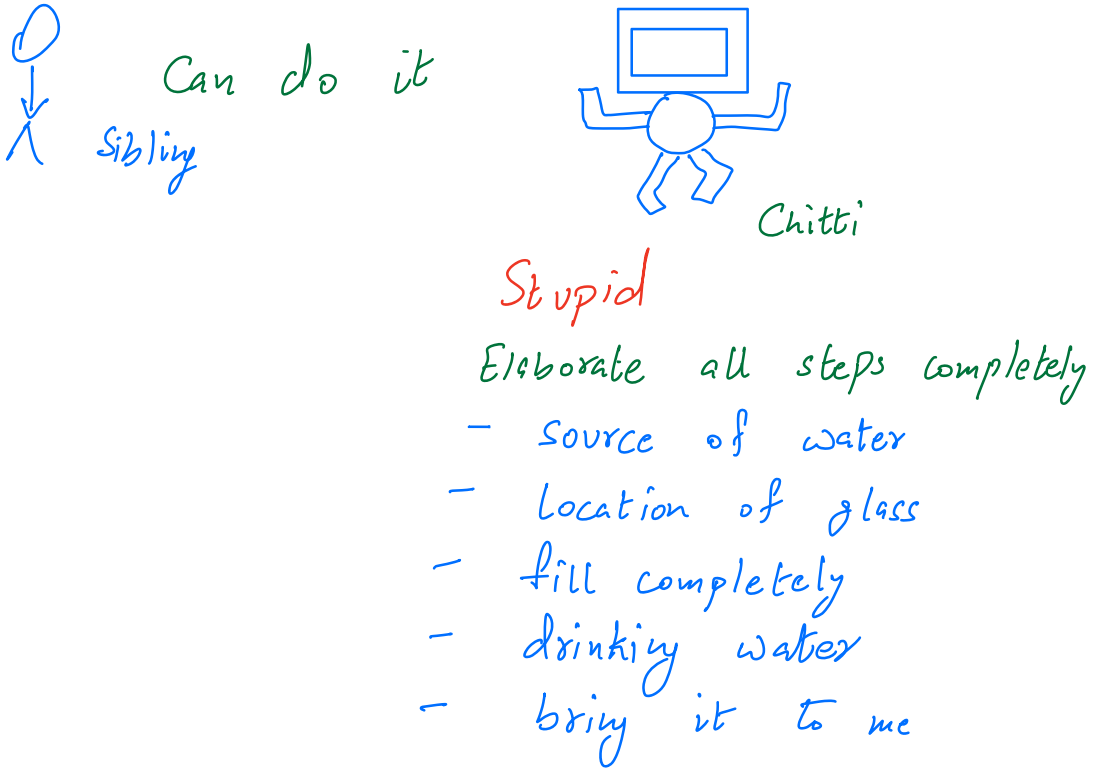
Ex SDE Visa, CureFit, Coding Blocks

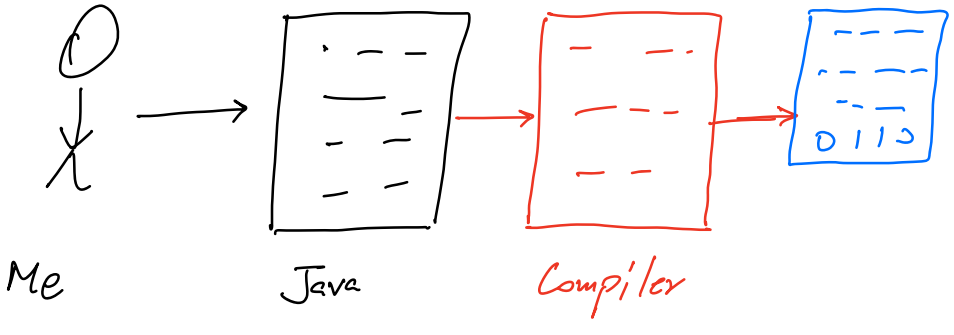
5 Million downloads on Apps on Apple & Google

Teaching since 4 years

Codess.Cafe founder - Placed people in FAANG in UK, Germany, Singapore etc

Starting at 9:05pm





 Switch (Billions)

ON (1) OFF (0) ⇒ Language of computer

Syntax

Set of rules

Wrong grammar

- I is teaching from my student. ✗
- I am teaching maths. ✓

Java also has rules → Syntax

Compiler → Compilation error

Data types

Ice Water Water Vapour

Bucket Bottle Cylinder

Why different containers ??

Java ⇒ Numbers, Text

1) int
2) long
3) float

⇒ Numbers without decimals / integers

10, -2, 0, -119876, 1111111

4) double → Numbers with decimal value

3.14, −1.25, −1.876588765

Integers

Small numbers ⇒ less memory ⇒ int

Big numbers ⇒ More memory ⇒ Long

Decimal numbers

Small numbers ⇒ less memory ⇒ float

Big numbers ⇒ More memory ⇒ double

Strings

"Hello" "Hello world!"

"10" → Yes ⇒ String

10 → No ⇒ int

10.1 → float

$-10^9 \approx -2^{32} \leq$ int $\leq 2^{32} - 1 \approx 10^9$

$-2^{64} \leq$ long $\leq 2^{64} - 1$

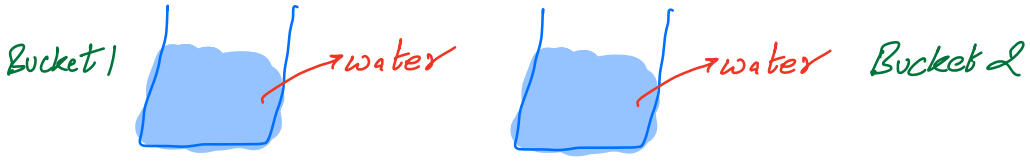
$1.4 \times 10^{-45} \leq$ float $\leq 3.4 \times 10^{38}$

$4.9 \times 10^{-324} \leq$ double $\leq 1.7 \times 10^{308}$

Boolean

True / False

Variables



By giving label

2 integers

label name ⇒ variable name

Container ⇒ Variable

Water_Bucket bucket1

int x;

x [15] integer [20] integer y

```
int x;
int y;
```

Writing variables

```
int x;
x = 10;  // x bucket holds value 10
x = "Hello"; // Error
int x = 10; // Make a bucket and put
                10 in it

long y;
y = 1000 000 000 000l; // London - l

float z;
z = 1.23f; // Finland - f

double w;
w = 1.22222 33334 44;

boolean v;
v = True;
v = False;
```