Starting at 9:04pm

```
System.out.print();  // Error
```

Always need to give value to print

```
System.out.println();  // Prints a new line
System.out.print("123");  // 123
System.out.print("2x5");  // 2x5
```

Data Types

	ice	water	vapour
	solid	liquid	gas
container :	Ice Bucket with holes	Glass	Cylinder

Data printed ⇒ Numbers, Text

Numbers
- Integer (int) } Integers
- long (long) }
- Float (float) & Decimal

↳ Double (double)

Integers ⇒ {$-\infty, \ldots, -2, -1, 0, 1, 2, \ldots, \infty$}
Decimals ⇒ {2.03, -3.15, -7.555555, 8.63}

Coffee shop

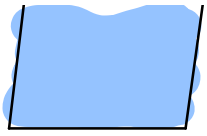
Coffee mls ⇒ 30, 40, 70, 90 mL

$-10^9 \cong -2^{31} \leq int \leq 2^{31}-1 \cong 10^9$
$-10^{18} \cong -2^{63} \leq long \leq 2^{63}-1 \cong 10^{18}$

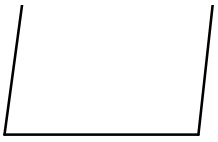
float ⇒ Holds less data [less precision]
double ⇒ Holds more data [more preision]

Text ⇒ String

Typecasting

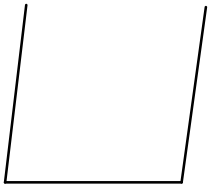


100 mL

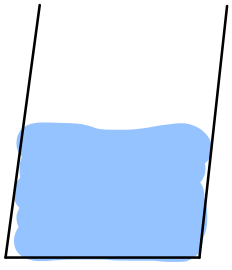


200 mL

Can pour in 200 ml bucket



100 mL



≤ 100mL

200 mL

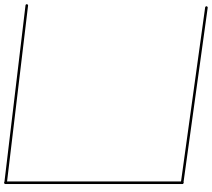
Can pour in 100 ml bucket

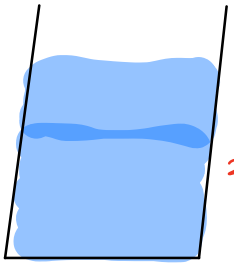
int ⟶ long

long ⟶ int

Putting data from one type of container into another type of container

Overflow





≥ 0

100 ml 200 ml

Yes ⇒ When Q ≤ 100 ml

No ⇒ When Q > 100ml

Water will overflow

Long ⟶ int

(10^{12})

Overflow will happen

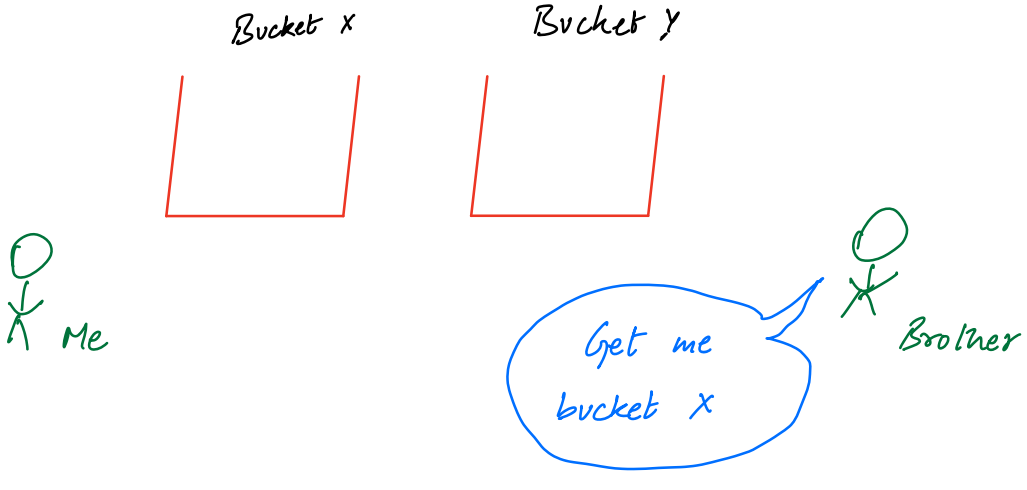
Store random value

Payments : Transfer X from AC1 to AC2

$X = 10^{12}$

int instead of long

Variables



Multiple buckets of int, long, float, double

Declaration

```
int x;      long l;      float f;
int y;      double d;
```

Initialisation

```
x = 10;          l = 5000000;
y = -5;          f = 1.25;
                 d = -123.456789;
```

Declare + Initialise

```
int x = 10;
int y = -5;
```

Break - 10:05 pm

Code : https://www.interviewbit.com/snippet/ef95a183d3aa5c29b1d6/