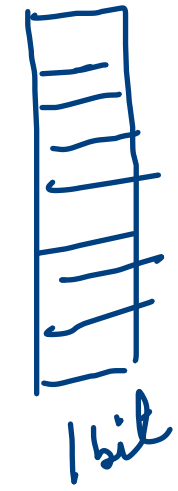
Data Type

int a = 1; (4 bytes)

1 byte = 8 bit (32 bits)

Type	Size
→ int	4 bytes
→ short	2 bytes
→ long	8 bytes
→ byte	1 byte
→ double	8 bytes
→ float	4 bytes
→ boolean	1 byte
→ char	2 byte



Ex.

int a = 10;

byte b = 11;

long l = 117;

double d = 10.5 } decimal

float f = 1.5f }

Char c = ' a ';

boolean b1 = true/false;

1/0

```java
// Online Java Compiler
// Use this editor to write, compile and run your Java code online

class HelloWorld {
    public static void main(String[] args) {

        int a = 10;
        byte b = 11;
        long l = 117;
        double d = 10.5;
        float f = 1.5f;
        char c = 'a';
        boolean rahul = true;

        System.out.println(a);
        System.out.println(b);
        System.out.println(l);
        System.out.println(d);
        System.out.println(f);
        System.out.println(c);
        System.out.println(rahul);

    }
}
```

```
java -cp /tmp/hoHTDXvAkf/HelloWorld
10
11
117
10.5
1.5
a
true

=== Code Execution Successful ===
```

Range of Data Types →

-2147483648 to 2147483647

COBOL and Java Data Types

Java Primitive Type	Description	Java Data Range
int	signed 32 bits	**-2147483648 to 2147483647**
long	signed 64 bits	-9223372036854775808 to 9223372036854775807
float	32 bits	1.40239846e-45f to 3.40282347e+38f
double	64 bits	4.94065645841246544e-324 to 1.79769313486231570e+308

Ground Rules while creating variables

→ keep variable names logical

→ variable names can't start from numbers.

Eg. ~~int 1 x~~

→ ~~SumOfTwo~~

→ Camel Case Eg. sumOfTwo , arraySum

Arithmetic Operators

BODMAS

+ , - , * , / , %

- int, int → int
- int, double → double 2+1.5 = 3.5

double, double → double