

Data type

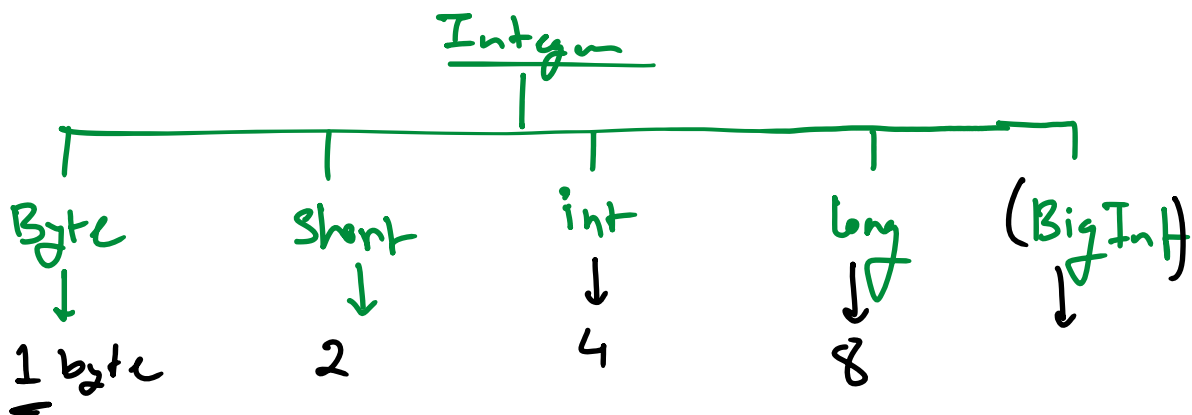
0 - 9 \rightarrow Integer

Float \Rightarrow 1.9 \rightarrow Float/Double

"String" \rightarrow String

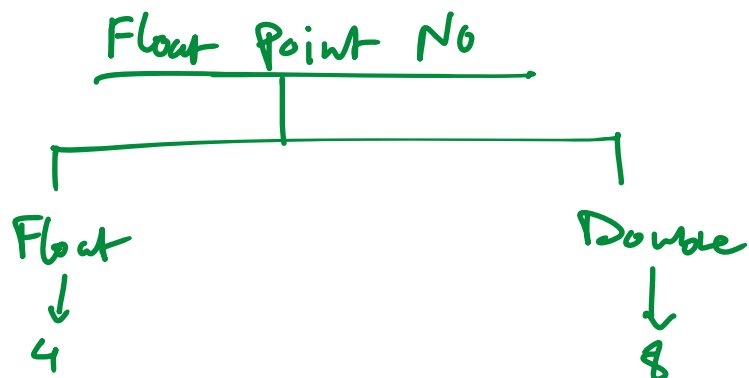
'A' 'B' \Rightarrow Char

T/F \Rightarrow Boolean



(-127 \rightarrow 128) (-34287 \rightarrow 34288)

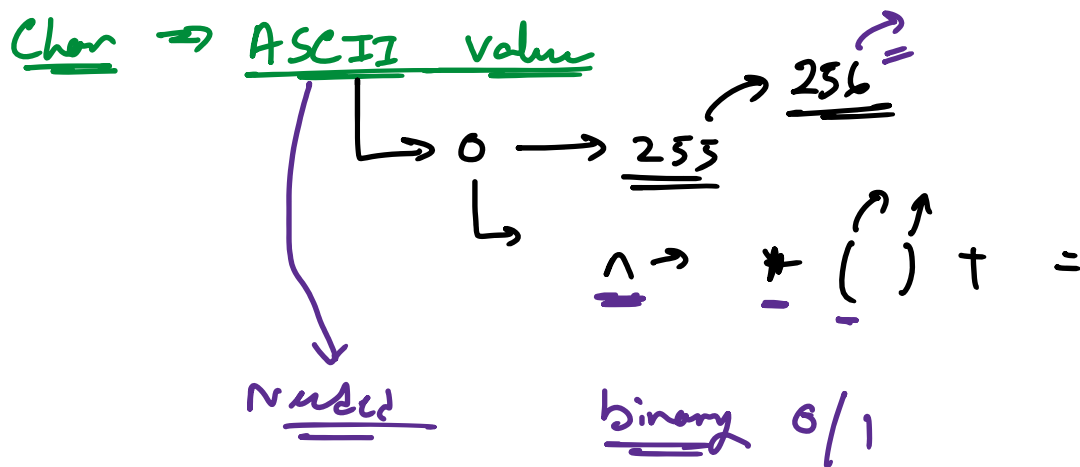
\Downarrow
Range



Char \Rightarrow 1

boolean \Rightarrow 2

String \Rightarrow \checkmark



\downarrow A B C \rightarrow (A-2) 65 \rightarrow 90 (a-2) 97 \rightarrow 122

A B C
65 66 67

64 32 16 8 4 2 1
1 0 0 0 0 0 1

65 \rightarrow 1000 0101
66 \rightarrow 1000 0110
67 \rightarrow 1000 0111

Operators

Math \rightarrow +, -, *, /, %

binary \rightarrow &, |, ^, <<, >>

①, %

10 | 1001 | (100)

binary \Rightarrow &, |, ^, <<, >>

logical \Rightarrow &&, ||, !
 \downarrow \downarrow \downarrow
And Or Not

Condition = <, >, !=, ==

$10 < 12 \Rightarrow T/F$

$!(10 < 12) \Rightarrow T/F$

$12 > 10 \Rightarrow T/F$

$(10 > 12 \&\& 13 < 15) \Rightarrow T/F$

$(10 > 12 || 13 < 15) \Rightarrow T/F$

binary

& \Rightarrow

$$\begin{array}{r} 100000 | \\ \& 1000010 \\ \hline 1000000 \Rightarrow 64 \end{array}$$

15
66

1 \Rightarrow 1

0 \Rightarrow 0

or \Rightarrow 1 \Rightarrow

$1+0=1$

$1+1=1$

$$\begin{array}{r} 100000 | \\ 1 1000010 \\ \hline 1000011 \\ 64 \quad 21 \end{array}$$

$1*0=0$

$1*1=1$

$$\begin{array}{r} 64 \\ 2 \\ 1 \\ \hline 67 \Rightarrow C \end{array}$$

(^) XOR \Rightarrow

$$\begin{array}{r} 100000 | \\ \wedge 1000010 \\ \hline 0000011 \end{array}$$

$1 \wedge 1 = 0$

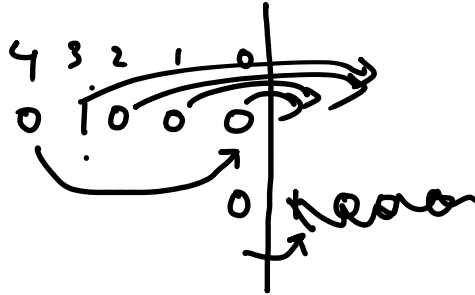
$0 \wedge 0 = 0$

$$1 \wedge 0 = 1$$

$$0 \wedge 1 = 1$$

$\ll \Rightarrow$ Left shift \rightarrow $0001 \Rightarrow 1 \ll 4 \Rightarrow \underline{10000}$

$\gg \Rightarrow$ Right shift \Rightarrow $1000 \Rightarrow 1 \gg 4 \Rightarrow 0$



H.w

1. $2347 \Rightarrow$ WAP to find 3rd digit?
 \downarrow
 $\rightarrow 3$

7771048

2. Any number WAP to find 2 bit of that no?

3. WAP to check even odd no?

*4. WAP to Find 4th bit and change 4th bit to 0?

$7 \Rightarrow$ $\begin{matrix} 4 & 3 & 2 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 \end{matrix} \Rightarrow$

$16 \Rightarrow$ $\begin{matrix} 1 & 0 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{matrix} \Rightarrow \ll, \&, \wedge$

$\begin{matrix} 1 & 0 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 0 \end{matrix}$

$660000 \Rightarrow !20$

$1 \& 0 = 0$

1 * 1 = 1

```
// int age = 20;
///  
///  
///  
// if(age <= 14) {  
//     System.out.println("Child");  
// } else if(age <= 18) {  
//     System.out.println("Grandchild");  
// } else {  
//     System.out.println("Grand");  
// }  
//  
// // ternary operator ?  
//  
// System.out.println(age <= 14 ? "Child" : "Grandchild");  
  
// int num = 10;  
  
// System.out.println(num != 10 ? num + 2 : num + 5);  
//  
//  
// String ans = (num != 11) ? (num == 20) ? "equal 20" : "not equal  
20" : "not equal 10";  
//  
// System.out.println(ans);
```

// Loop

// while, do while, for

```
/*System.out.println("index 1");  
System.out.println("index 2");  
System.out.println("index 3");  
System.out.println("index 4");  
System.out.println("index 5");  
System.out.println("index 6");  
System.out.println("index 7");  
System.out.println("index 8");*/
```

```
// init  
// condition  
// incre / decre
```

```
// int i=1;
```

// while loop

```
/*  
while(i <= 8) {  
    System.out.println("Index " + i);  
    i++;  
}  
*/
```

// for loop

```
/*  
for( ; i<=8; ) {  
    System.out.println("Index " + i);  
    i++;  
}  
*/
```

// do while

```
/*  
do {  
    System.out.println("Index " + i);  
    i++;  
} while(i < 9);
```

```

*/

// Switch cass

// Scanner sc = new Scanner(System.in);
// System.out.println("Enter your name : ");
// String name = sc.nextLine();
//
// switch (name) {
//     case "krupa":
//         System.out.println("good boy");
//         break;
//     case "shikha":
//         System.out.println("good girl");
//         break;
//     default:
//         System.out.println("not matched");
// }

/*
Scanner sc = new Scanner(System.in);

System.out.println("Enter your age : ");
int age = sc.nextInt();
sc.nextLine();
System.out.println("Enter your name : ");
String name = sc.nextLine();

System.out.println(age);
System.out.println(name);

*/

Scanner sc = new Scanner(System.in);

for(int i=0; i<10; i++) {
    System.out.println("Enter Your name");
    String name = sc.nextLine();

    System.out.println(name);
}

```