Loops

Bitwise Operator Problem

[3,0,1]   length = 3 // 0 to length
//out put -2

//Range - 0 to length //3

//0 1 2 3
[3,0,1]
                    2
                      2 ->
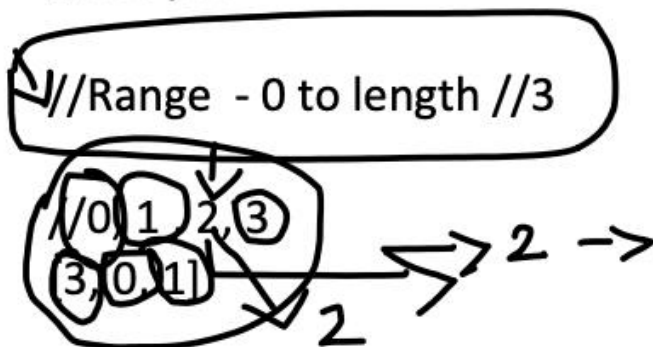
^ - 0101 ^ 0111 = 0010
^ - 0101 ^ 0101 = 0000
5 ^ 5 = 0

Loops

for, while, do-while, for-each

System.out.println(1);
System.out.println(2);
System.out.println(3);

//syntax - for-loop

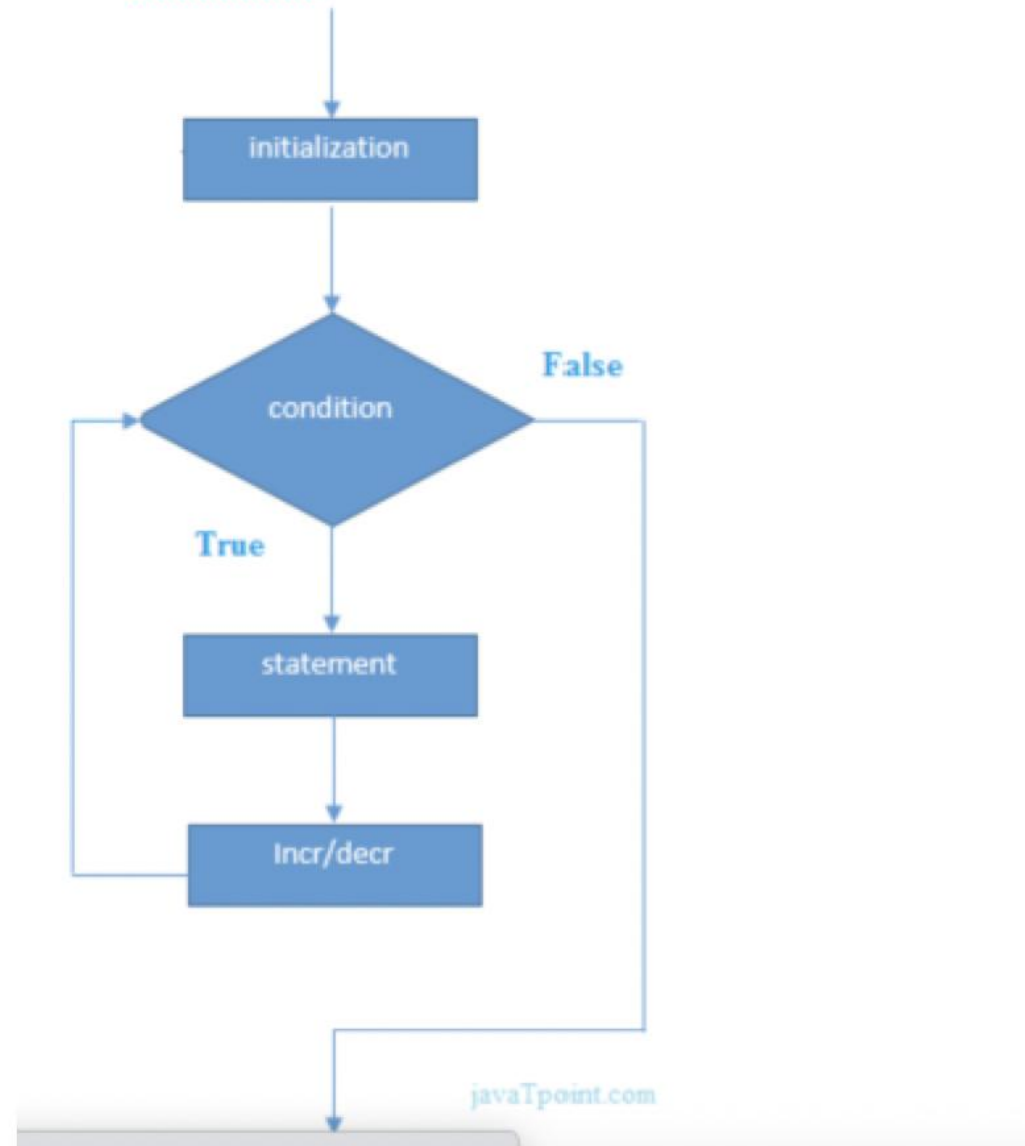for(initialization; condition; incre/decre) {
      //statements
}

```
For(int j =2; j <= 100; j *= 2) {
      System.out.print();
}
```
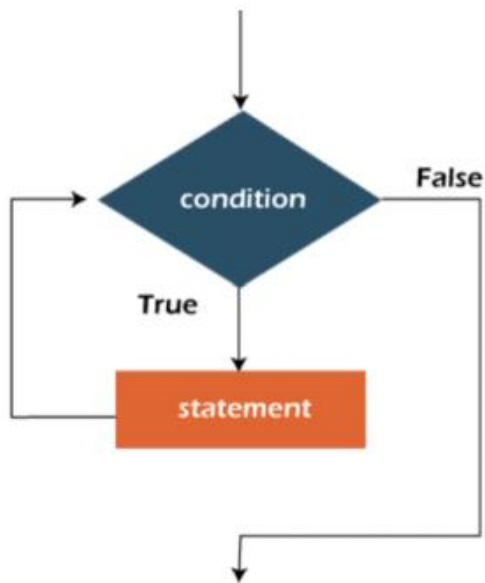
//code statem,ents

//j = 11

//output
1 2 3 4 5 6 7 8 9 10

initialization

condition

True

False

statement

Incr/decr

javaTpoint.com

While loop

Syntax

```
while(condition) {
        //statements
}
```
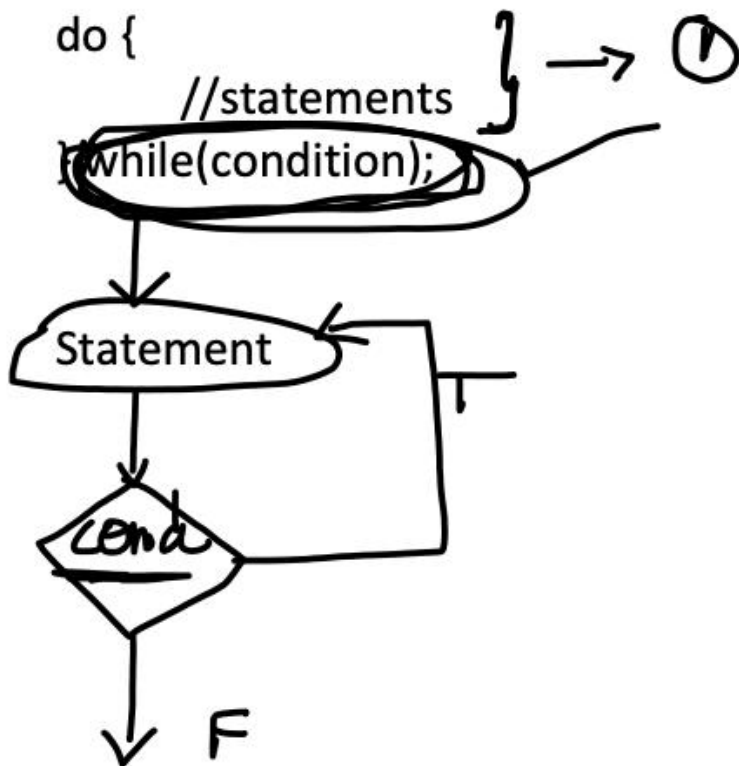


```
//example

Int j = 1;
While(j <= 10) {
        System.out.print(j);
        j++;
}

While(true) {
        //statements
}

//1 2 3 4 5 6 7 8 9 10
```
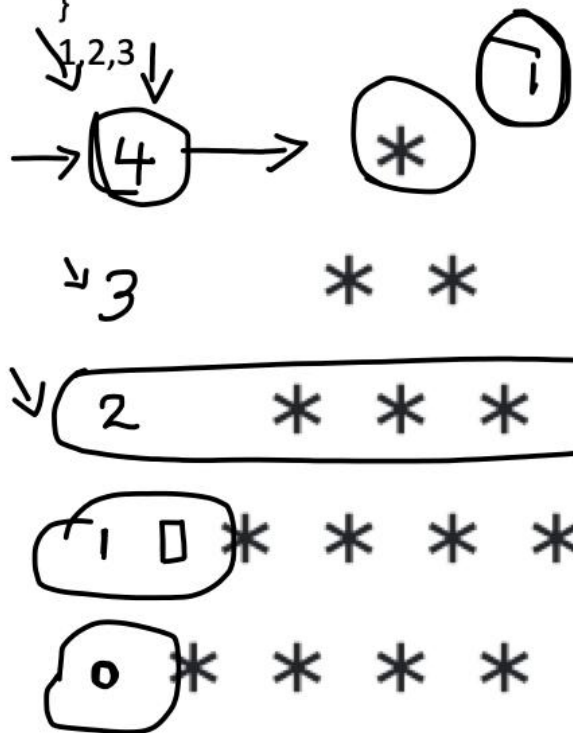
Do - while Loop

```
do {
        //statements
}while(condition);
```



```
Int j = 13;

do {
        System.out.println(j);
        j++;
}while(j <= 10);

//12
//1 2 3 4 5 6 7 8 9 10
```

For Each   0 1 2↓

```
Int[] nums = {1,2,3};
For(int j =0; j <=10; j++) {
        System.out.print(nums[j]); ·
        If(j == 5) {
                Break;
        }
}
//state
```

```
for(int j : nums) {
        System.out.println(j); //1 2 3      5
}
```

1,2,3↓

→ (4) →   *   (1)

↳ 3   * *

(2)   * * *

(1 []) * * * *

(0) * * * * *

(1) (5) - 1 → lines

(2) 5 - 2 = 3

(1) 5 - 3 = 2

```
//num of rows
For(int i = 1; i <= 5; i++) {//i = 6
    For(int j = 5 - i; j >=1; j--) {
            System.out.print(" ");
    }                                    X
    For(int j  = 1; j <= i; j++) {//j= 4
            System.out.print("*");
    }
    System.out.println();
```
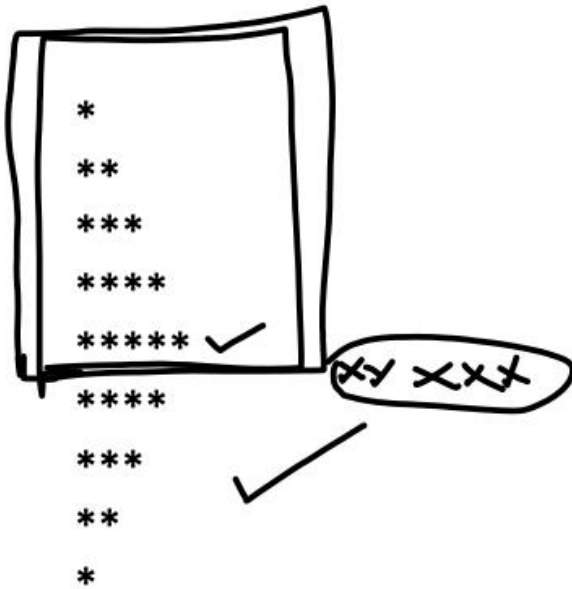
```
*
**
***
****
*****
```

Input = 5

```
*
**
***
****
***** ✓
****
***
**
*
```
xy xxx

Switch Statement

//syntax

```
switch(varName/expression) {
      Case value1:
            Break;
      Case value2:
            Break;
      ...
      ...
      Default:
}
```

/example

```
Int number = 20;
Switch (number) {
    Case 10:
        System.out.println("this is 10");
        ;
    Case 20:
        System.out.println("this is 20");
        break;
    Case 30:
        System.out.println("this is 30");
        ;
    Default:
        System.out.println("default");
}
```

uniq ✓

bre

case 10:

//this is 20

[3,0,1] //0 to length(3) //Possible numbers - 0 1 2 3 - input [3, 0,1]. 0 ^ 1 ^ 2 ^ 3 ^ 3 ^ 0 ^ 1,

//2

5 ^ 5 = 0
6 ^ 6 = 0