



TODAY'S AGENDA

- For and While Loops
- Switch Case
- Static Array (One Dimensional and Two Dimensional)
- Dynamic Array

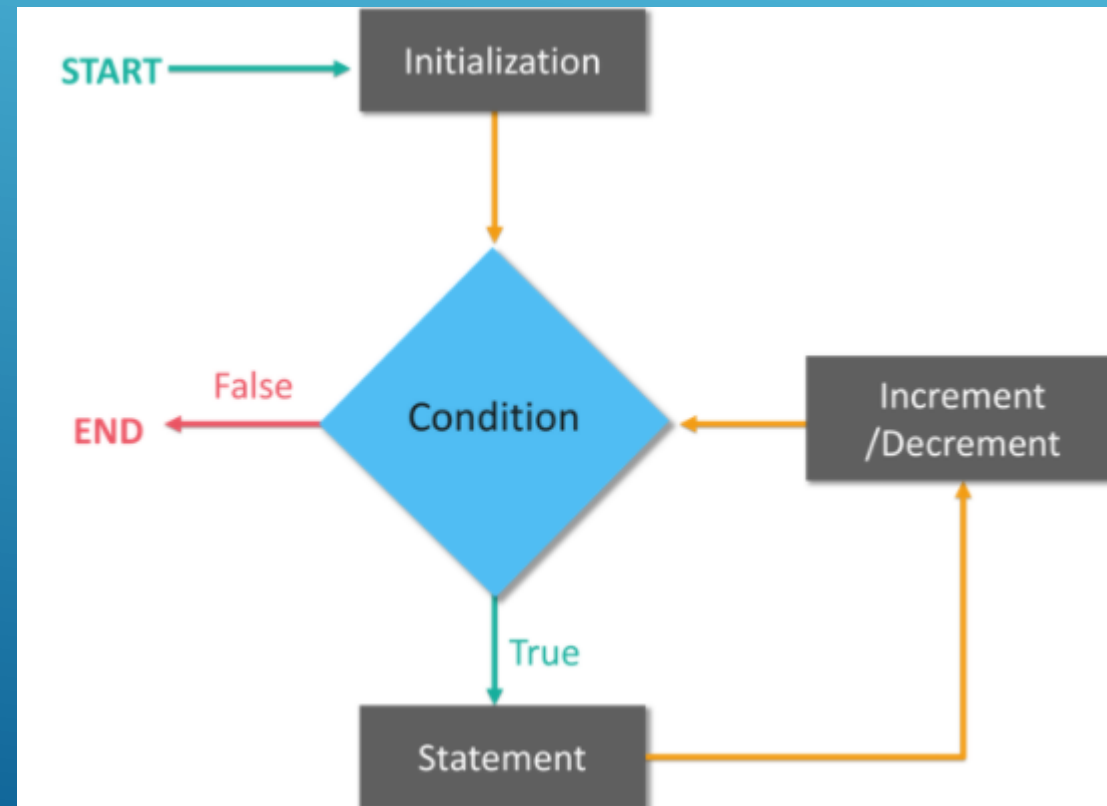
```
hp body_class="fb-root"></div>
function(d, s, id) {
, fjs = d.getElementsByTagName(s)[0];
getElementById(id)) return;
.createElement(s); js.id = id;
c = "//connect.facebook.net/en_US/sdk.js#xfb
arentNode.insertBefore(js, fjs);
ent, 'script', 'facebook-jssdk'));</script>
="page" class="site">
class="skip-link screen-reader-text" href="
header id="masthead" class="site-header" role
<div class="site-branding">
<div class="navBtn pull-left">
<?php if(is_home() && $xpanel['ho
<a href="#" id="openMenu"><i clas
<?php } else { ?>
<a href="#" id="openMenu2"><i cl
<?php } ?>
</div>
<div class="logo pull-left">
<a href="<?php echo esc_url( ho

</div>
<div class="submit-btn hidden-xs h
<a href="<?php echo get_page_
</div>
<div class="user-info pull-right
<?php
if ( is_user_logged_in() ) {
if ( current_user;
```

FOR LOOP



- Programmers usually use loops to execute a set of statements. For loop is used when they need to iterate a part of the programs multiple times. It is particularly used in cases where the number of iterations is fixed!
- Flow diagram :





Syntax

```
for (statement 1; statement 2; statement 3) {  
    // code block to be executed  
}
```

Statement 1: condition before the code block is executed

Statement 2: specifies the condition for execution of the code

Statement 3: condition once the code has been executed

Example

```
public class MyClass {  
    {  
    public static void main(String[] args) {  
    {for (int i = 0; i < 5; i++) {  
    System.out.println(i);  
    }  
    }  
    }}
```

Output

0
1
2
3
4

NESTED FOR LOOP



- If you have a for loop inside a for loop, you have encountered a Java nested for loop. The inner loop executes completely when the outer loop executes.

Example

```
public class Example{  
    public static void main(String[] args) {  
        for(int i=1;i<=3;i++){  
            for(int j=1;j<=3;j++){  
                System.out.println(i+" "+j);  
            }  
        }  
    }  
}
```

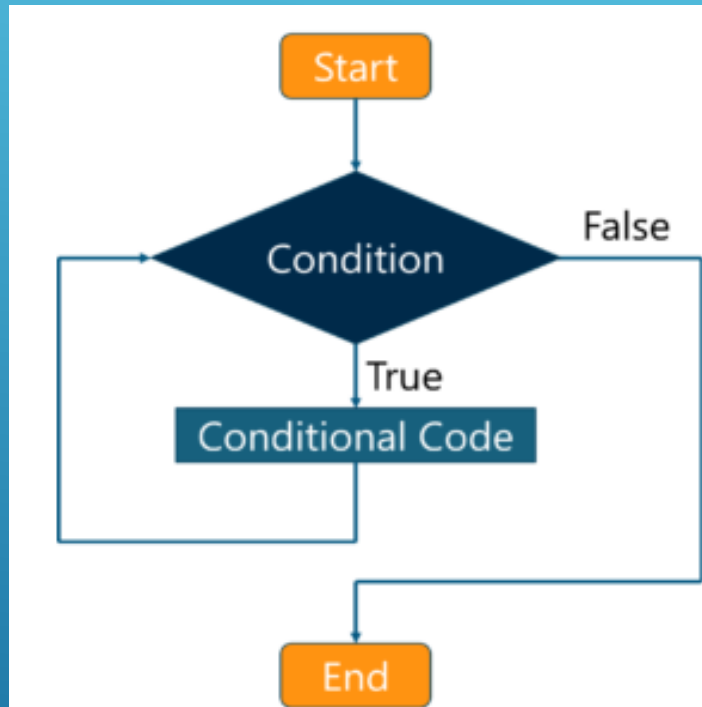
Output

```
1 1  
1 2  
1 3  
2 1  
2 2  
2 3  
3 1  
3 2  
3 3
```

WHILE LOOP



- The Java while loop is used to iterate a part of the program again and again. If the number of iteration is not fixed, then you can use while loop.



Example

```
class Example {  
    public static void main(String args[]){  
        int i=10;  
        while(i>1){  
            System.out.println(i);  
            i--;  
        }  
    }  
}
```

Output

10
9
8
7
6
5
4
3
2

Syntax

```
while (condition) {  
    // code block to be executed  
}
```

INFINITE WHILE LOOP



- The moment you pass 'true' in the while loop, the infinite while loop will be initiated.

Syntax

```
while (true){  
    statement(s);  
}
```

Example

```
class Example {  
    public static void main(String args[]){  
        int i=10;  
        while(i>1)  
        {  
            System.out.println(i);  
            i++;  
        }  
    }  
}
```

Switch Case

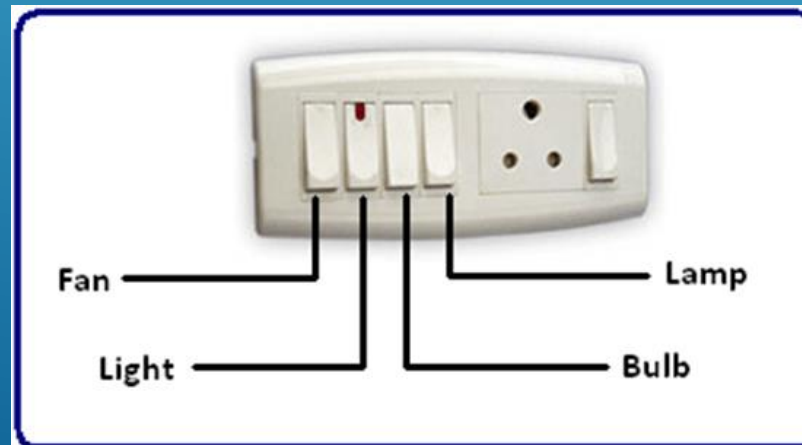


Java Switch Statement

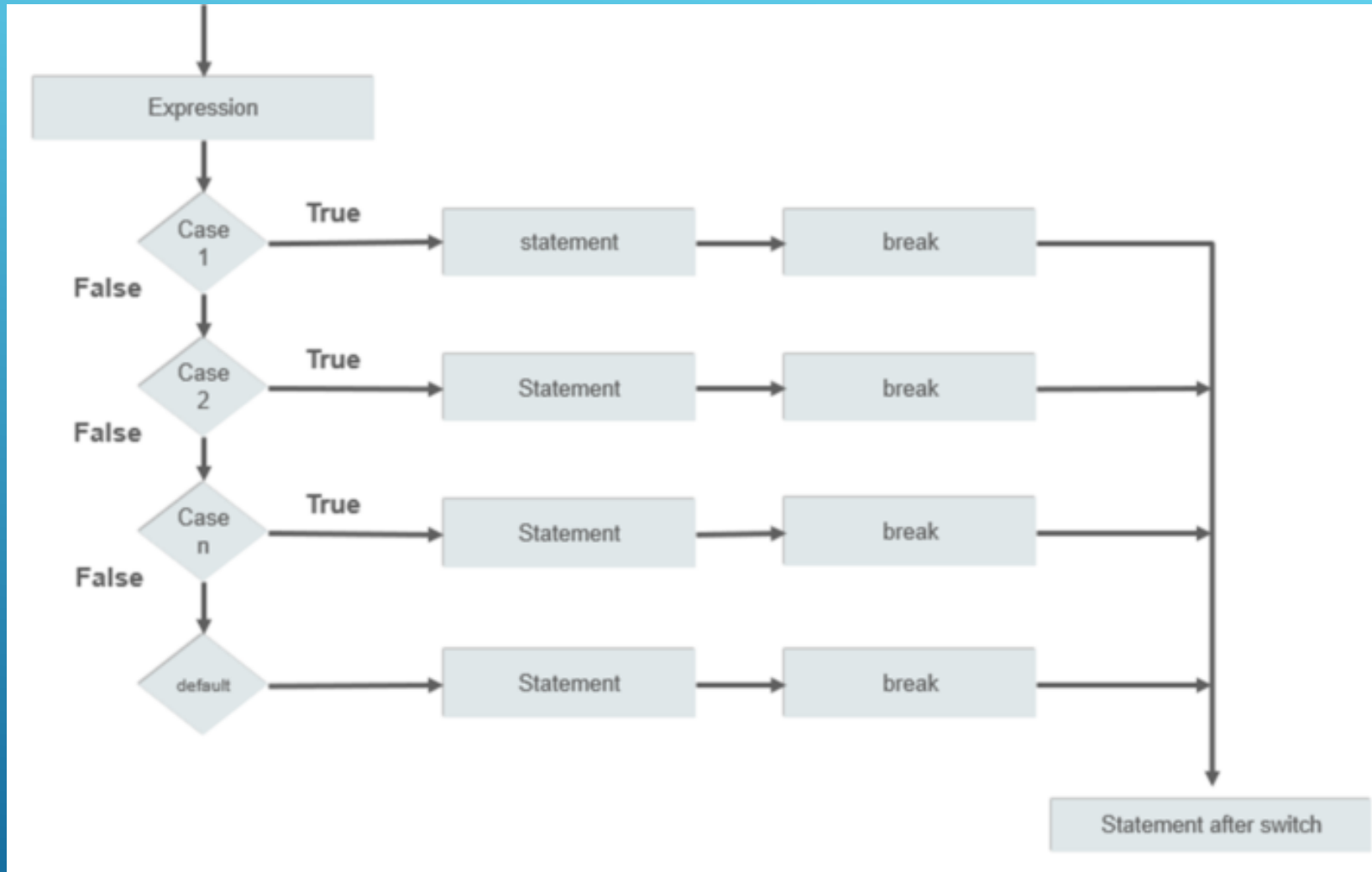
- It is like a conditional statement which tests multiple values and gives one output. These multiple values that are tested are called cases.
- It is used when we have a number of options/choices and we may need to perform a different task for each choice.

Break Statement In Switch Case

- Break statement is used to control the flow of the execution, as soon as the expression is satisfied the execution moves out the switch case block.



Switch Case



Arrays



- Array is an object which contains fixed number of elements of a similar data type under same variable.

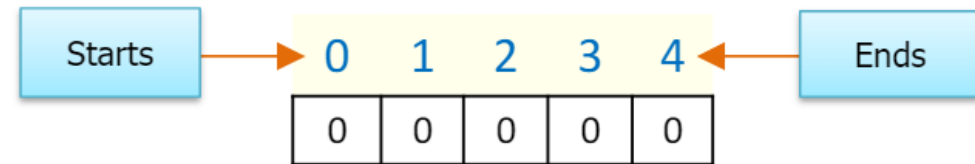
Array can be declared in multiple ways:

1 →

data type size of array

```
int[] a = new int[5];
```

Index has to be given
in square brackets

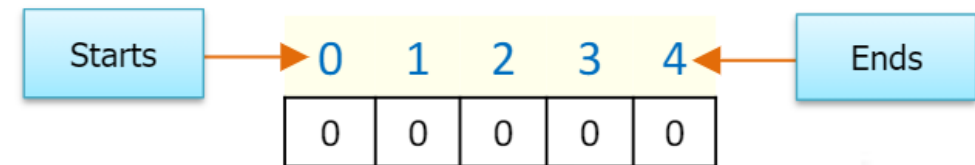


2 →

data type size of array

```
int a[] = new int[5];
```

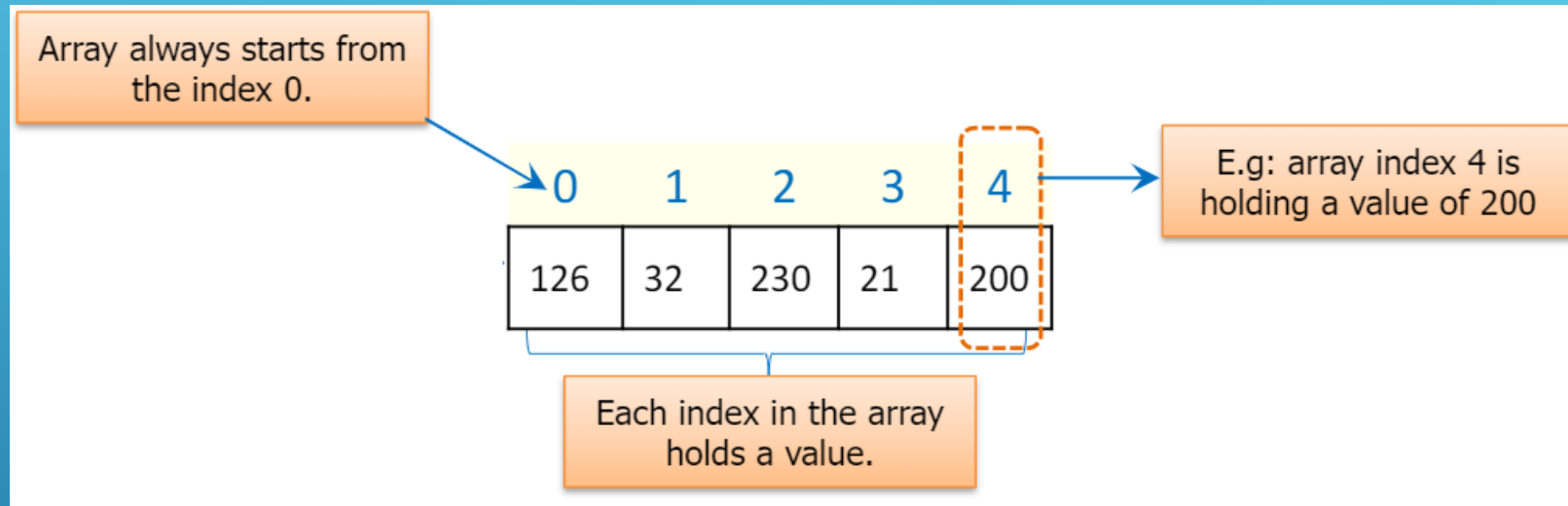
Index has to be given
in square brackets



Arrays



- Array in Java is index based, the first element of the array is stored at 0th index and 2nd element is stored at 1st index and so on.



- Static Arrays (int, String, object)
- Two Dimensional Array (Table/Matrix)
- Dynamic Array (Array List)

Array List



- The difference between a normal array and an ArrayList in Java, is that the size of an array cannot be modified (if you want to add or remove elements to/from an array, you have to create a new one). While elements can be added and removed from an ArrayList whenever you want.
- Example:
 - Population of UK
 - Cricket scorecard – career runs for batsman who keeps making runs.

HOMEWORK



Switch Case:

- 1. Write a program to print a specific month in the calendar for a given value.

For Loop:

- 2. Write a program to print 10 even numbers and 10 odd numbers.
- 3. Write a program to generate tables of 10.



HOMework



While Loop:

- 4. Write a program to print 10 even numbers and 10 odd numbers.
- 5. Write a program to generate tables of 9.

Do While Loop:

- 6. Write a program to print 10 even numbers and 10 odd numbers.
- 7. Write a program to generate tables of .

Deadline: Wednesday Midnight Latest

