

# Day-4

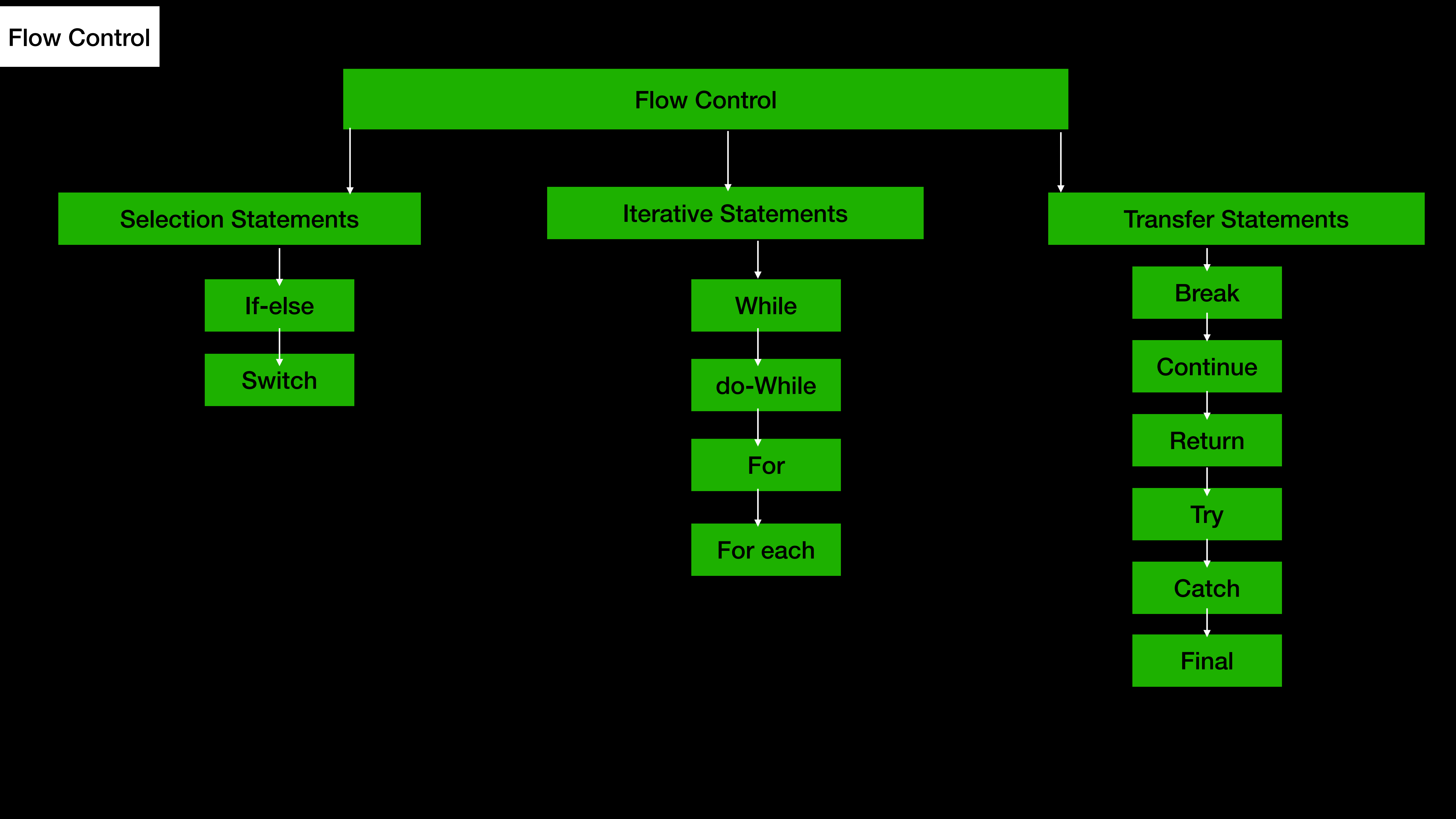
# Agenda

**Flow Control**

**Class**

**Package**

**Constructor**



Flow Control

Selection Statements

If-else

Switch

Iterative Statements

While

do-While

For

For each

Transfer Statements

Break

Continue

Return

Try

Catch

Final

## If-else

The argument to the if statement should be boolean type , if we are providing any other we will get compilation error

### Syntax

```
if(b){  
    //Action if b is true  
}else{  
    // Action if b is false  
}
```

## Switch Statement

If several option are possible then it is never recommended to use if-else , we should go for switch

### Syntax

```
Switch(x){  
  Case 1 :  
    //Action ;  
  Case 2 :  
    //Action ;  
  Case 3 :  
    //Action ;  
  .....  
  .....  
  Default :  
    Default Action ;  
}
```

### Before JAVA : 5

**byte**

**short**

**int**

**char**

### In JAVA : 7

**String**

### After JAVA : 5

**Byte**

**Short**

**Int**

**Char**

**enum**

### while

**If we do not know the no of statement in advance then the best suitable loop is while loop**

### Syntax

```
while(rs.next()){  
    //Logic  
}
```

### do while

**If we want to execute loop body at least once then we should go for do-while**

### Syntax

```
do{  
    //Logic  
}while(b);
```

**Break :  
Will Back at :  
10:05 PM IST**



## for loop

This is the most commonly used loop to retrieve the data from Array or Collections.

### Syntax

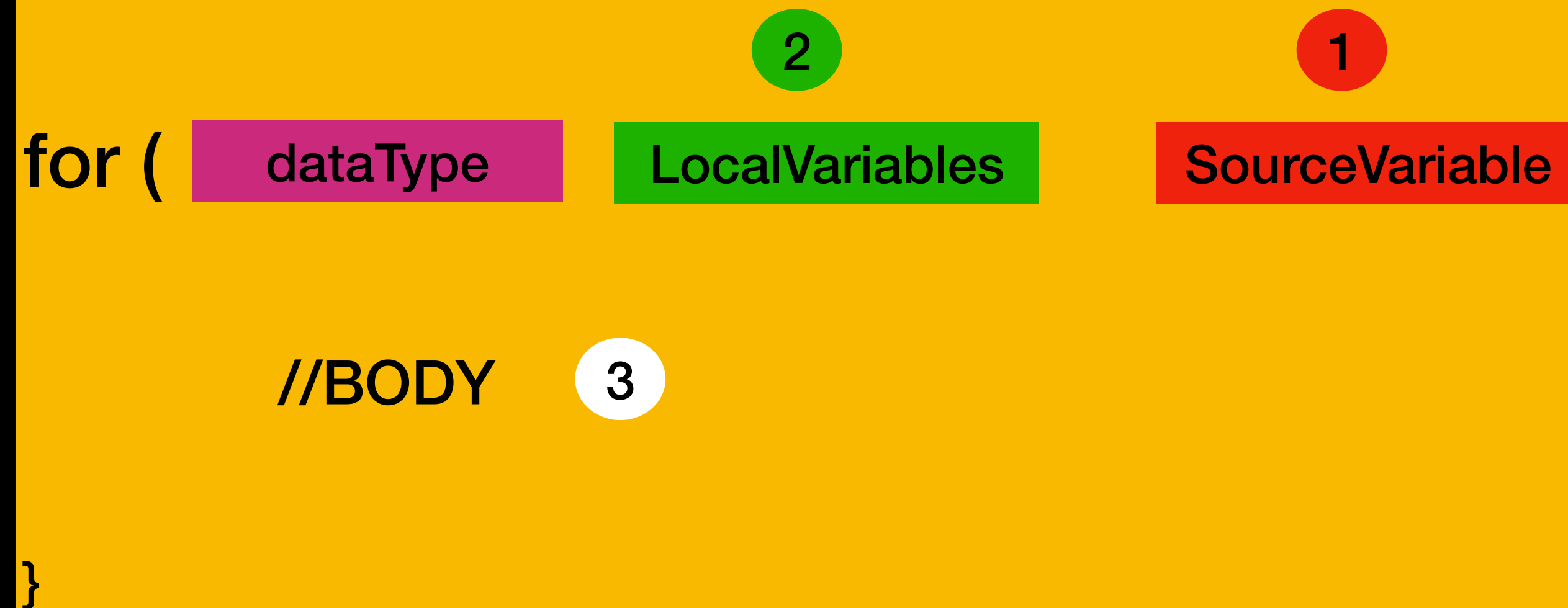
```
for ( 1 initial-Section ; 2 conditional-Expression ; 4 increment/decrement 7 ) {  
  
    3 //BODY 6 9  
  
}
```

for each loop

**This loop is also called as enhanced for loop . Introduced in 1.5V. Most convent loop to retrieve the data from Array & Collections**

## Syntax

```
for ( dataType      LocalVariables      SourceVariable  
      //BODY  
}
```



The diagram illustrates the syntax of the 'for each' loop. It shows the code structure with three numbered annotations: 1 points to the 'SourceVariable' (red box), 2 points to the 'LocalVariables' (green box), and 3 points to the 'BODY' (white circle). The 'dataType' is highlighted in a pink box. The entire code block is set against a yellow background.

Break

**We can use break statement to stop the execution .**

### Continue

**We can use continue statement to skip the current execution & skip for the next execution.**

**When ever we are writing our own java class compulsory we have to provide information about**

**Our class to JVM**

**Whether our class can be accessible from anywhere or not**

**Whether child class creation is possible for our class or not**

**Whether instantiation is possible or not .**

**We can Specify this information by declaring with appropriate modifier . Which is ....**

Public

Final

strictfp

Default

Abstract

**It is Encapsulation mechanism to group related class and interface in to single module.**

**The main purpose of packages are ....**

**To Resolve Naming conflict**

**To provide Security to the class & interface . So that outside person can not access directly**

**It improve the modularity of the application .**

**In any JAVA program there should be only at most one package statement**

**In any JAVA program the first non comment statement should be package statement .**

**Object creation is not enough compulsory we should perform initialization then only that Object is in a position to provide response properly .**

**When ever we are creating an object some piece of the code will be executed automatically to perform initialization . This piece of code is nothing but constructor . Hence the main objective of Constructor is to perform initialization for the newly created object .**

### Rule to define the constructor

**The name of the class and name of the constructor must be matched**

**Return type concept is not applicable for constructor including void also.**

**The only applicable modifier for constructor are : “public, private, protected, default ”**

**If we are not writing any constructor then compiler will always generate default constructor .**  
**If we are writing at least one constructor then compiler would not generate default constructor .**  
**Hence a class can contain either programmer written constructor or compiler generated Constructor but not both simultaneously**



Object

TODO

Method

TODO