Day-3.1

Agenda

Array
Flow Control

Array

An array in an indexed collection of fixed no of homogeneous data element

The main advantage of array is we can represent multiple values under the same name.

But the main limitations of array is once we can create an array there is no chance

Of increasing/decreasing size based on our requirements .

Types of Array

- Single Dimension Array
- Double Dimensions Array or 2D Array
- Triple Dimensions Array or 3D Array

Array Deceleration

Single Dimension Array

1. int[ ] a;
2. int a [ ];
3. int [ ]a;

Double Dimensions Array or 2D Array

1. int[ ] [ ] a;
2. int [ ] [ ] a;
3. int a[ ] [ ] ;
4. int[ ] a[ ] ;
5. int[ ] [ ]a ;
6. int [ ]a [ ] ;

Triple Dimensions Array or 3D Array

1. int[ ] [ ] [ ] a;
2. int a[ ] [ ] [ ];
3. int [ ][ ][ ] a;
4. int[ ] [ ][ ]a ;
5. int[ ] a[ ] [ ] ;
6. int[ ] [ ] a [ ] ;
7. int[ ] [ ] [ ] a;
8. int[ ] [ ] a[ ];
9. int [ ] [ ]a[ ];
10. int [ ] a [ ][ ];

Array Construction

Single Dimension Array

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

Double Dimensions Array or 2D Array

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

Triple Dimensions Array or 3D Array

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

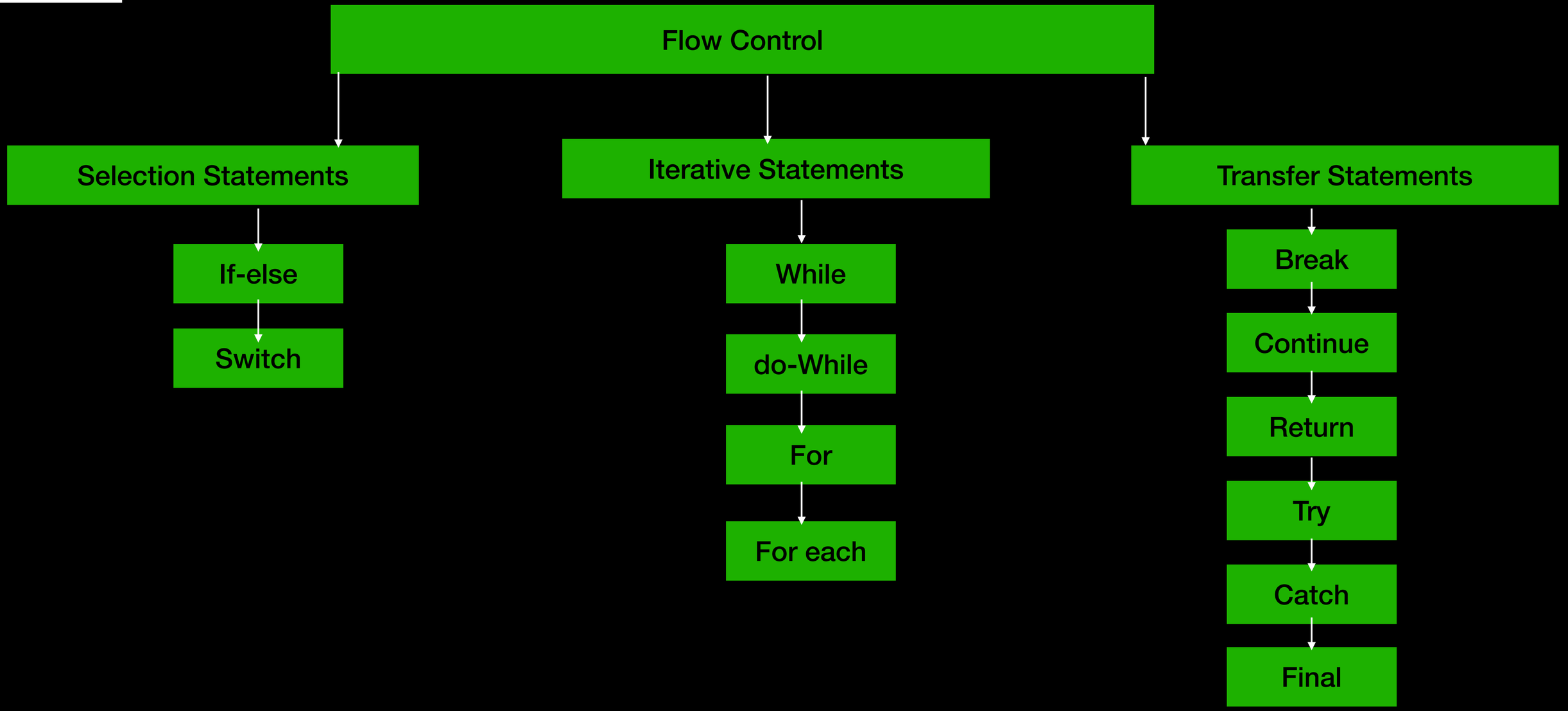
Array Operation

1. Insert

2. Search/Find

2. Search

Flow Control



Flow Control

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
}
```

Flow Control

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

Flow Control

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);
```

for loop

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

Syntax

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