JAVA Control Structures

```
if(condition)
{
//code to be executed
}
```

```
class IfExample
{
    public static void main(String[] args)
      {

        int age=20;

        if(age>18)
          {
            System.out.print("Age is greater than 18");
          }
      }
}
```

```
if(condition)
  {
      //code if condition is true
   }
else
{
   //code if condition is false
}
```

```
class IfElseExample
 {
   public static void main(String[] args)
    {
     int number=13;
     if(number%2==0)
       {
         System.out.println("even number");
       }
     else
       {
         System.out.println("odd number");
       }
    }
}
```

if-else-if ladder Statement

```
class IfElseIfExample {
public static void main(String[] args) {
    int marks=65;

    if(marks<50){
        System.out.println("fail");
    }
    else if(marks>=50 && marks<60){
        System.out.println("D grade");
    }
    else if(marks>=60 && marks<70){
        System.out.println("C grade");
    }
    else if(marks>=70 && marks<80){
        System.out.println("B grade");
    }
    else if(marks>=80 && marks<90){
        System.out.println("A grade");
    }else if(marks>=90 && marks<100){
        System.out.println("A+ grade");
    }else{
        System.out.println("Invalid!");
    }
}
}
```

Switch-case

```
switch(expression)
{
case value1:
 //code to be executed;
 break;  //optional
case value2:
 //code to be executed;
 break;  //optional
......

default:
 code to be executed if all cases are not matched;
}
```

```
class switchExample {
    public static void main(String[] args) {

        int week = 4;
        String day;

     switch (week) {
            case 1:
                day = "Sunday";
                break;
            case 2:
                day = "Monday";
                break;
            case 3:
                day = "Tuesday";
                break;
            case 4:
                day = "Wednesday";
                break;
        case 5:
                day = "Thursday";
                break;
            case 6:
                day = "Friday";
                break;
            case 7:
                day = "Saturday";
                break;
            default:
                day = "Invalid day";
                break;
        }
        System.out.println("The day is " + day);
    }
}
```

While loop

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

Java Infinitive While Loop

```
while(true){
//code to be executed
}
```

Example:

```
class WhileExample2
{
public static void main(String[] args)
 {
    while(true){
        System.out.println("infinitive while loop");
    }
}
}
```

ctrl +c to break loop

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

}
```

```
class DoWhileExample2
{
public static void main(String[] args)
 {
    do{
        System.out.println("infinitive do while loop");
    }while(true);
}
}
```

For loop

```
for(int i=1;i<=10;i++)
{
System.out.println(i);
}
```

```
//infinite for loop

for(; ;)
{
System.out.println(i);
}
```

```
public class BreakExample
{
public static void main(String[] args)
 {

    for(int i=1;i<=10;i++)
     {
        if(i==5)
       {

            break;
        }
        System.out.println(i);
    }
}
}
```

```
class ContinueExample
{
public static void main(String[] args)
{

    for(int i=1;i<=10;i++)
     {
        if(i==5)
       {

            continue;//it will skip the rest statement
        }
        System.out.println(i);
    }
}
}
```

Output:

```
1
 2
 3
 4
 6
 7
 8
 9
10
```