**Java For Loops and For Each Loops:**

Looping in programming languages is a feature which facilitates the execution of a set of statements repeatedly.

Syntax:

for(initialization; condition; increment/decrement)

{

Statements;

}

Example:

**package** FPPackage;

**public** **class** ifelse {

**public** **static** **void** main(String[] args) {

**for**(**int** i=0; i<10; i++) {

System.***out***.println(i);

}

System.***out***.println("Completed");

}

}

**For Loops inside For Loops:**

We can also create for loops inside other for loops.

**package** package1;

**public** **class** JavaExamples {

**public** **static** **void** main(String[] args) {

**for** (**int** i=0; i<10; i++) {

System.***out***.println("I am outside loop");

**for**(**int** j=0; j<5; j++) {

System.***out***.println(" -- I am inside loop");

}

}

}

}

**For Each Loop:**

For each loops are mainly used for Arrays and Collections.

For example if we have an array, we can access the elements of array using the following way.

**package** package1;

**public** **class** JavaExamples {

**public** **static** **void** main(String[] args) {

String[] a = {"sunday","monday","tuesday", "wednesday", "thursday", "friday", "saturday"};

**for** (**int** i=0; i<a.length; i++) {

System.***out***.println(a[i]);

}

}

}

We can use a normal for loop with array length in it and loop through the array.

The same can be achieved using for each loop as well.

**package** package1;

**public** **class** JavaExamples {

**public** **static** **void** main(String[] args) {

String[] a = {"sunday","monday","tuesday", "wednesday", "thursday", "friday", "saturday"};

**for** (String item : a) {

System.***out***.println(item);

}

}

}

In the above program we used

for (String item: a)

Here each value of the array will be stored in item which will be looped through.

The syntax for for each loop is

For (datatype of array/collection variable : array/collection)

**Another program to find the sum of elements in array using for each loop:**

**package** package1;

**public** **class** JavaExamples {

**public** **static** **void** main(String[] args) {

**int**[] a = {1,2,3,4,5,6,7,8,9,10};

**int** sum = 0;

**for** (**int** item : a) {

sum = sum + item;

}

System.***out***.println("Sum of array values is "+sum);

}

}