Loop Statements

In programming, sometimes we need to execute the block of code repeatedly while some condition evaluates to true. However, loop statements are used to execute the set of instructions in a repeated order.

- 1. for loop
- 2. while loop
- 3. do-while loop

1. Java for loop

In Java, <u>for loop</u> is similar to \underline{C} and $\underline{C++}$. It enables us to initialize the loop variable, check the condition, and increment/decrement in a single line of code. We use the for loop only when we exactly know the number of times, we want to execute the block of code.

2. Java for-each loop

Java provides an enhanced for loop to traverse the data structures like array or collection. In the for-each loop, we don't need to update the loop variable. The syntax to use the for-each loop in java is given below.

```
for(data_type var : array_name/collection_name){
//statements
}
```

3. Java while loop

The <u>while loop</u> is also used to iterate over the number of statements multiple times. However, if we don't know the number of iterations in advance, it is recommended to use a while loop.

4. Java do-while loop

The <u>do-while loop</u> checks the condition at the end of the loop after executing the loop statements. When the number of iteration is not known and we have to execute the loop at least once, we can use do-while loop.

It is also known as the exit-controlled loop since the condition is not checked in advance. The syntax of the do-while loop is given below.

do

{

//statements				
} while (condition);				
Jump Statements				
Jump statements are used to transfer the control of the program to the specific statements. other words, jump statements transfer the execution control to the other part of the program				
1.Java break statement				
As the name suggests, the <u>break statement</u> is used to break the current flow of the program and transfer the control to the next statement outside a loop or switch statement.				
2. Java continue statement				
Unlike break statement, the <u>continue statement</u> doesn't break the loop, whereas, it skips the specific part of the loop and jumps to the next iteration of the loop immediately.				