Master Core Java in 30 days

Day-5

Loops (or) Iterative Statements
While
Do-while
For Loop

Core Java

@6:30 PM Today

Iterative statements

when we need to repeatedly execute a block of statements in java programming Language using iterative statements.

There are four types of Loops

- While loop
- Do-while Loop
- For Loop
- For each Loop

Depending upon the position of a control statement in program, looping statement in java is classified into two types:

1. Entry controlled loop
2. Exit controlled loop

In an **entry control loop in java,** a condition is checked before executing the body of a loop. It is also called as a pre-checking loop.

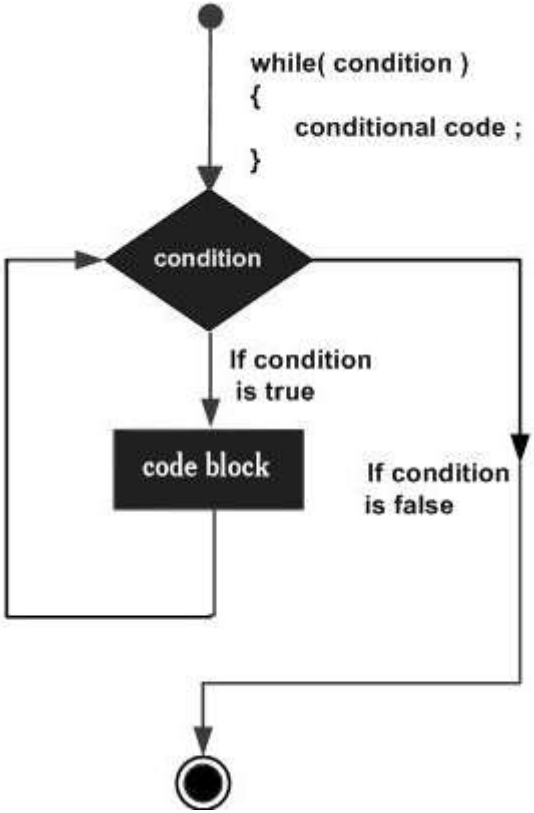
In an **exit controlled loop**, a condition is checked after executing the body of a loop. It is also called as a post-checking loop

While is an entry control loop, in while loop the condition or an expression is evaluated first.

If it evaluates true then only the body of the statement is executed once.

Syntax:

```
While (Expression)
{
Statements;
}
```


while(condition)
{
conditional code ;
}
condition
If condition
is true
code block
If condition
is false

do-while Loop

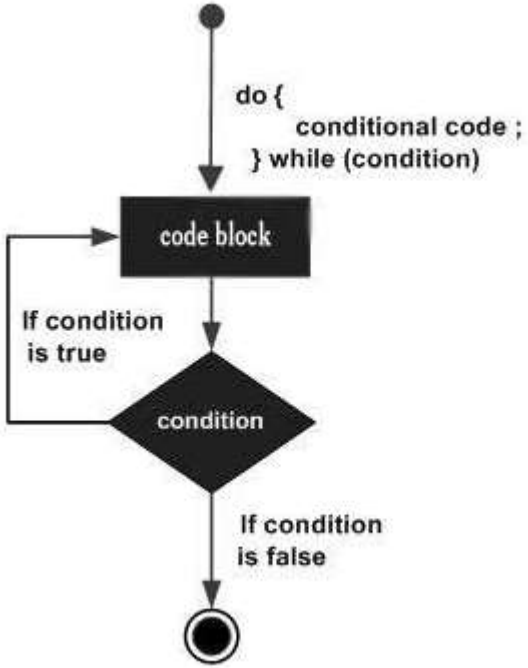
It is said to be an exit control loop, In do-while loop the block of statements execute first then the expression is evaluated

If the expression evaluated true then the body of loop executes again

In do-while loop the statements are executed at least once.

Syntax:

```
do
{
 statements;
} while (expression/condition);
```


do {
conditional code ;
} while (condition)
code block
If condition
is true
condition
If condition
is false

For loop

For Loop is also an entry control loop.

Which initialisation conditional and increment and decrement part in the same place.

Syntax

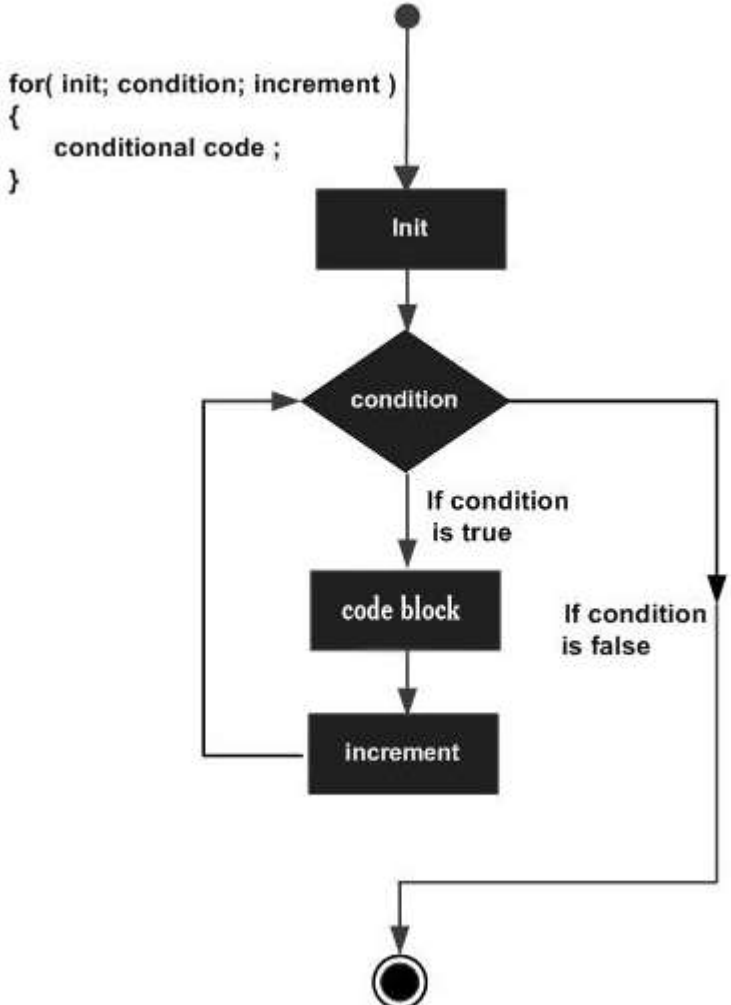
```
for ( init; condition; increment )
{
 statement(s);
 }
```

For loop

- The **init** step is executed first, and only once. This step allows you to declare and initialize any loop control variables.
- Next, the **condition** is evaluated. If it is true, the body of the loop is executed. If it is false, the body of the loop does not execute and the flow of control jumps to the next statement just after the 'for' loop.
- After the body of the 'for' loop executes, the flow of control jumps back up to the **increment** statement. This statement allows you to update any loop control variables.
- The condition is now evaluated again. If it is true, the loop executes and the process repeats itself (body of loop, then increment step, and then again condition). After the condition becomes false, the 'for' loop terminates.

For Loop

```
for( init; condition; increment )
{
    conditional code ;
}
```



For each loop

The Java for-each loop or enhanced for loop is introduced since J2SE 5.0. It provides an alternative approach to traverse the array or collection in Java

Syntax

```
for(data type variable : array | collection)
{
body of for-each loop
}
```

For each loop

- The drawback of the enhanced for loop is that it cannot traverse the elements in reverse order.
- Here, you do not have the option to skip any element because it does not work on an index basis.
- Moreover, you cannot traverse the odd or even elements only.

Tech-tutorials 2k21

Thank You

Please Subscribe, Like and Share
My videos