3. Program for Java Operators

Objective: Learning java operators

Description and Code: Create a java file and save it as Program3.java and put following code into this file: -

```
// Java Operators

class Program3 {

  public static void main(String[] args) {


  // Java Arithmetic Operators


    // declare variables

    int a = 100, b = 10;


    // addition operator

    System.out.println("a + b = " + (a + b));


    // subtraction operator

    System.out.println("a - b = " + (a - b));


    // multiplication operator

    System.out.println("a * b = " + (a * b));
```

```
// division operator

System.out.println("a / b = " + (a / b));


// modulo operator

System.out.println("a % b = " + (a % b));



//Assignment Operators


 // create variables

int x = 4;

int var;


// assign value using =

var = x;

System.out.println("var using =: " + var);


// assign value using =+

var += x;    // var = var+ x   8

System.out.println("var using +=: " + var);
```

```
    // assign value using =*
    var *= x;  // var = var*x    32
    System.out.println("var using *=: " + var);


    // Relational Operators
// create variables
    int a1 = 7, b1 = 11;

    // value of a1 and b1
    System.out.println("a1 is " + a1 + " and b1 is " + b1);

    // == operator
    System.out.println(a1 == b1);  // false

    // != operator
    System.out.println(a1 != b1);  // true

    // > operator
    System.out.println(a1 > b1);  // false
```

```
// < operator

System.out.println(a1 < b1);  // true


// >= operator

System.out.println(a1 >= b1);  // false


// <= operator

System.out.println(a1 <= b1);  // true



// Logical Operators


// && operator

System.out.println((5 > 3) && (8 > 5));  // true   && AND

System.out.println((5 > 3) && (8 < 5));  // false


// || operator

System.out.println((5 < 3) || (8 > 5));  // true   || OR

System.out.println((5 > 3) || (8 < 5));  // true

System.out.println((5 < 3) || (8 < 5));  // false
```

```
// ! operator

System.out.println(!(5 == 3));  //  !false= true


System.out.println(!(5 > 3));  // !true =false



// Unary Operators

// declare variables

int m = 12, n = 12;

int result1, result2;


// original value

System.out.println("Value of m: " + m);


// increment operator

result1 = ++m;

System.out.println("After increment: " + result1);


System.out.println("Value of n: " + n);
```

```
    // decrement operator
    result2 = --n;
    System.out.println("After decrement: " + result2);

    // Ternary Operator
    int Z = 81;
    String result;

    // ternary operator
    result = (Z == 80) ? "Even" : "Odd";
    System.out.println(result);

  }
}
```

Expected Output:

a + b = 110

a - b = 90

a * b = 1000

a / b = 10

a % b = 0

```
var using =: 4
var using +=: 8
var using *=: 32
a1 is 7 and b1 is 11
false
true
false
true
false
true
true
false
true
true
false
true
false
Value of m: 12
After increment: 13
Value of n: 12
After decrement: 11
Odd
```