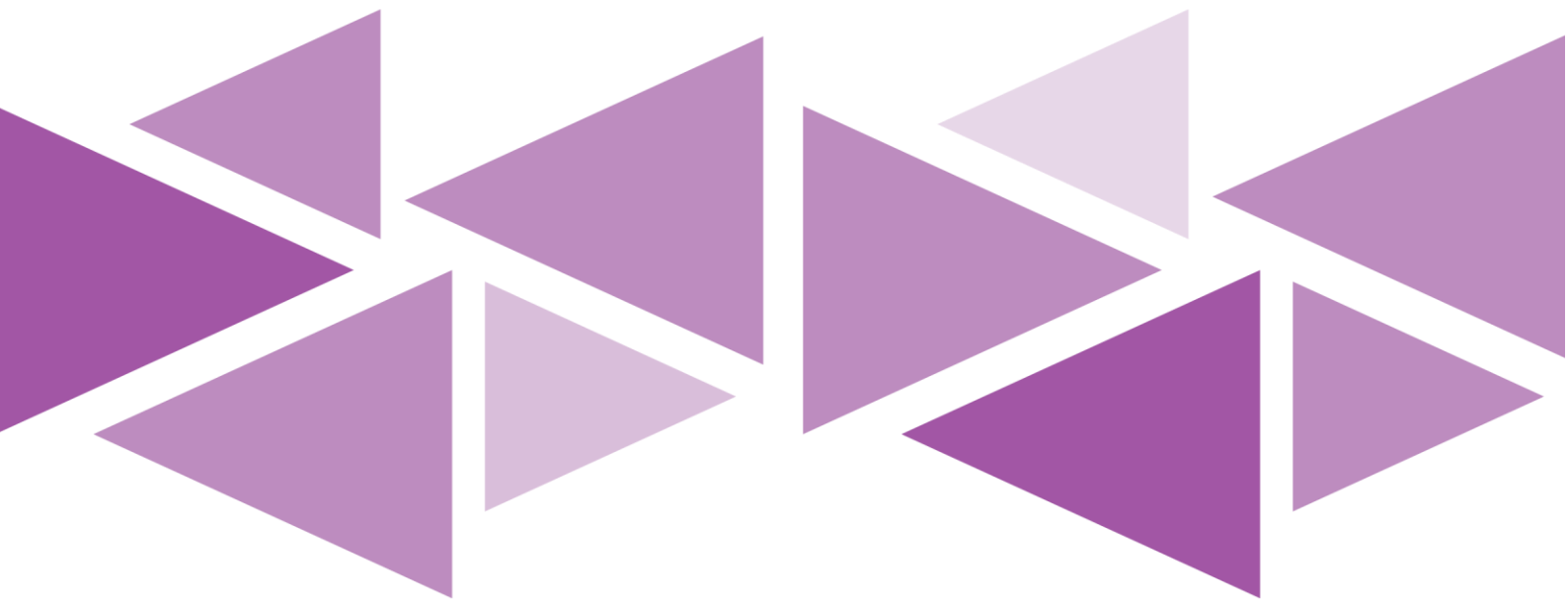


# **NESTED CONDITIONAL & LOOPING CONTROL CONSTRUCTS ASSIGNMENT**

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**Submitted by  
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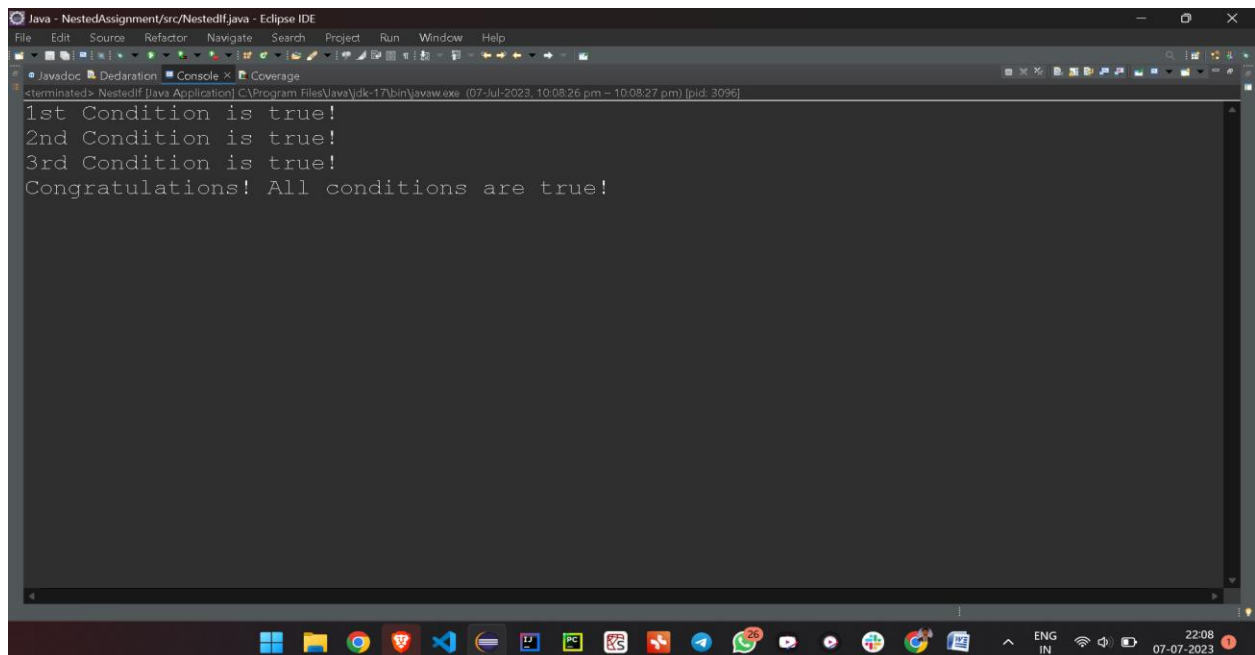
# Nested if Conditional Control Construct

**Conclusion:** Nested if conditional control construct is permitted.

**Code:**

```
public class NestedIf {
    public static void main(String[] args) {
        boolean i = true;
        boolean j = true;
        boolean k = true;
        if (i) {
            System.out.println("1st Condition is true!");
            if (j) {
                System.out.println("2nd Condition is true!");
                if (k) {
                    System.out.println("3rd Condition is true!");
                    System.out.println("Congratulations! All
conditions are true!");
                }
            }
        }
    }
}
```

**Output:**

A screenshot of the Eclipse IDE interface. The top menu bar includes File, Edit, Source, Refactor, Navigate, Search, Project, Run, Window, and Help. Below the menu bar, there are tabs for Javadoc, Declaration, Console, and Coverage. The Console tab is active, displaying the output of the program: "1st Condition is true!", "2nd Condition is true!", "3rd Condition is true!", and "Congratulations! All conditions are true!". The status bar at the bottom shows the system tray with various icons and the date/time "22:08 07-07-2023".

```
<terminated> NestedIf (Java Application) C:\Program Files\Java\jdk-17\bin\javaw.exe (07-Jul-2023, 10:08:26 pm - 10:08:27 pm) [pid: 3096]
1st Condition is true!
2nd Condition is true!
3rd Condition is true!
Congratulations! All conditions are true!
```

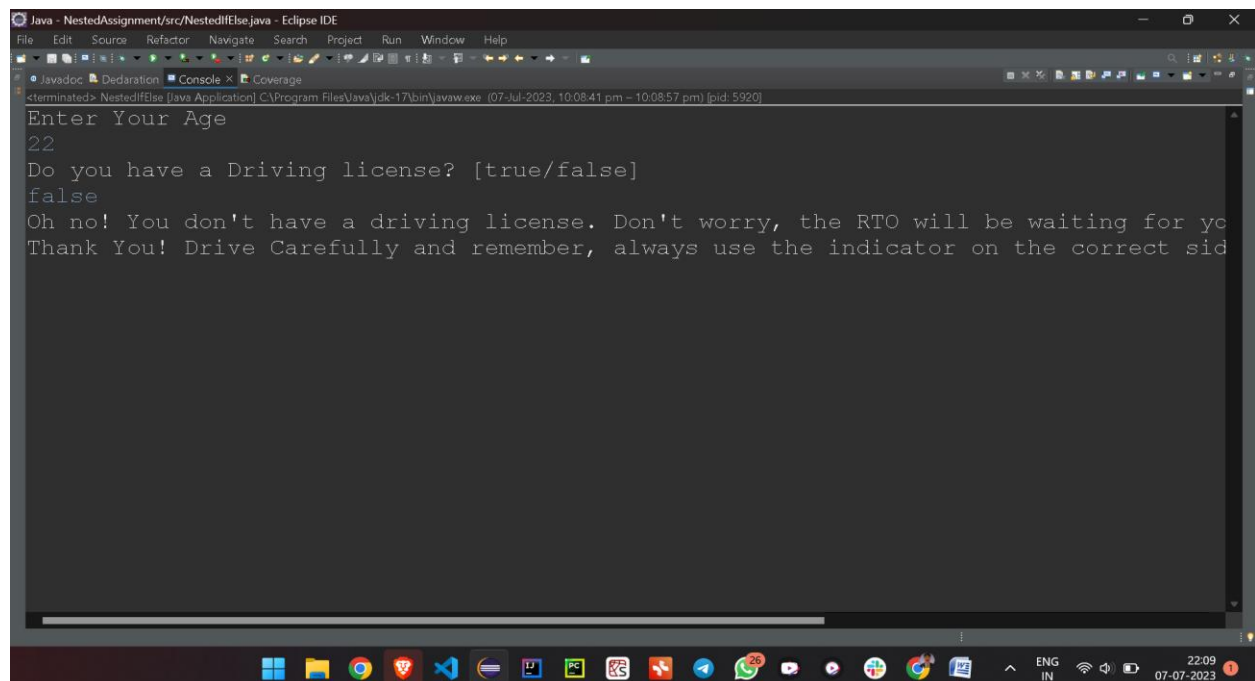
# Nested if-else Conditional Control Construct

**Conclusion:** Nested if-else conditional control construct is permitted.

**Code:**

```
import java.util.Scanner;
public class NestedIfElse {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter Your Age");
        int age = sc.nextInt();
        if (age > 18) {
            System.out.println("Do you have a Driving license? [true/false]");
            boolean dl = sc.nextBoolean();
            if (dl) {
                System.out.println("You're all set to become the next Fast and Furious star! Just remember to bring your own explosion effects!");
            } else {
                System.out.println("Oh no! You don't have a driving license. Don't worry, the RTO will be waiting for you with a red carpet and confetti cannons!");
            }
        } else {
            System.out.println("Your age should be more than 18. Don't worry! While you wait to become the next Vin Diesel, practice your driving skills in Sai Driving School.");
        }
        System.out.println("Thank You! Drive Carefully and remember, always use the indicator on the correct side.");
    }
}
```

**Output:**



```
Java - NestedAssignment/src/NestedIfElse.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Javadoc Declaration Console X Coverage
terminated> NestedIfElse [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (07-Jul-2023, 10:08:41 pm - 10:08:57 pm) [pid: 5920]
Enter Your Age
22
Do you have a Driving license? [true/false]
false
Oh no! You don't have a drivinglicense. Don't worry, the RTO will be waiting for yc
Thank You! Drive Carefully and remember, always use the indicator on the correct sid
```

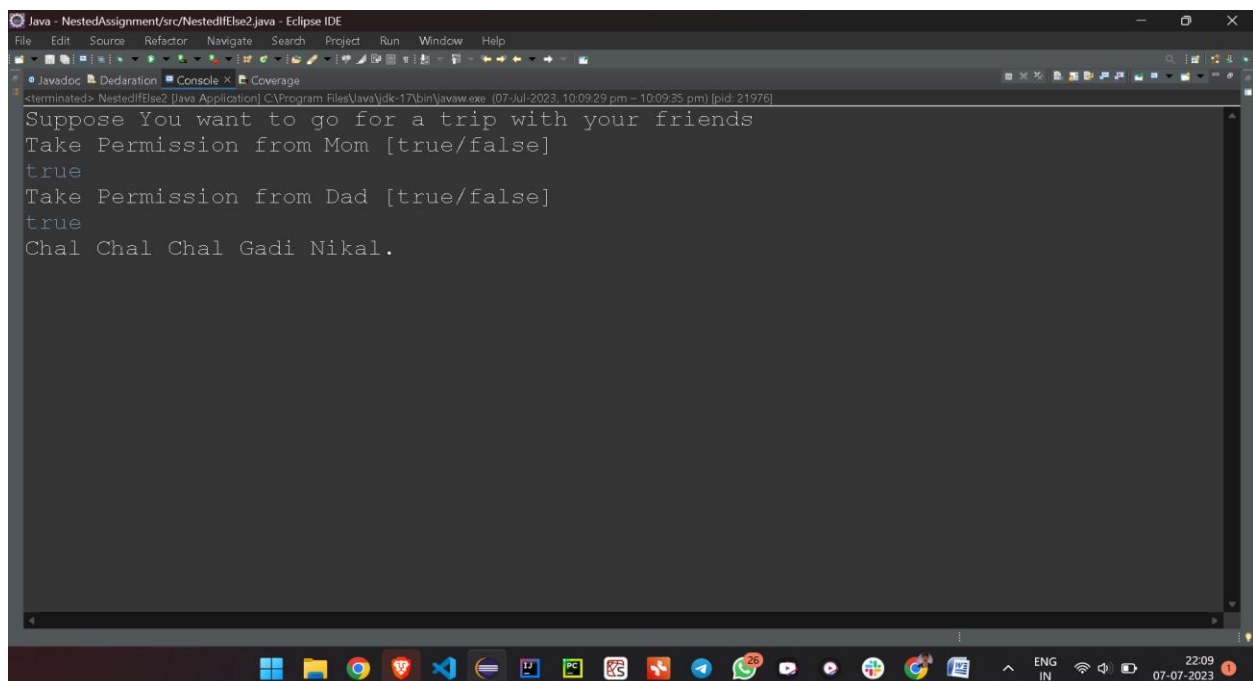
# Nested if-else Conditional Control Construct

**Conclusion:** Nested if-else conditional control construct is permitted.

**Code:**

```
import java.util.Scanner;
public class NestedIfElse2 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Suppose You want to go for a trip with your friends");
        System.out.println("Take Permission from Mom [true/false]");
        boolean mom = sc.nextBoolean();
        System.out.println("Take Permission from Dad [true/false]");
        boolean dad = sc.nextBoolean();
        boolean trip = true;
        if (mom == trip && dad == trip) {
            System.out.println("Chal Chal Chal Gadi Nikal.");
        } else {
            if (mom == trip && dad != trip) {
                System.out.println("Mom : Ask Your Dad, if dad says yes go....");
            } else {
                System.out.println("Dad : Ask Your Mom, if mom says yes go.....");
            }
        }
    }
}
```

**Output:**



```
Java - NestedAssignment/src/NestedIfElse2.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Javadoc Declaration Console X Coverage
terminated> NestedIfElse2 (Java Application) C:\Program Files\Java\jdk-17\bin\javaw.exe (07-Jul-2023, 10:09:29 pm) [pid: 21976]
Suppose You want to go for a trip with your friends
Take Permission from Mom [true/false]
true
Take Permission from Dad [true/false]
true
Chal Chal Chal Gadi Nikal.
```

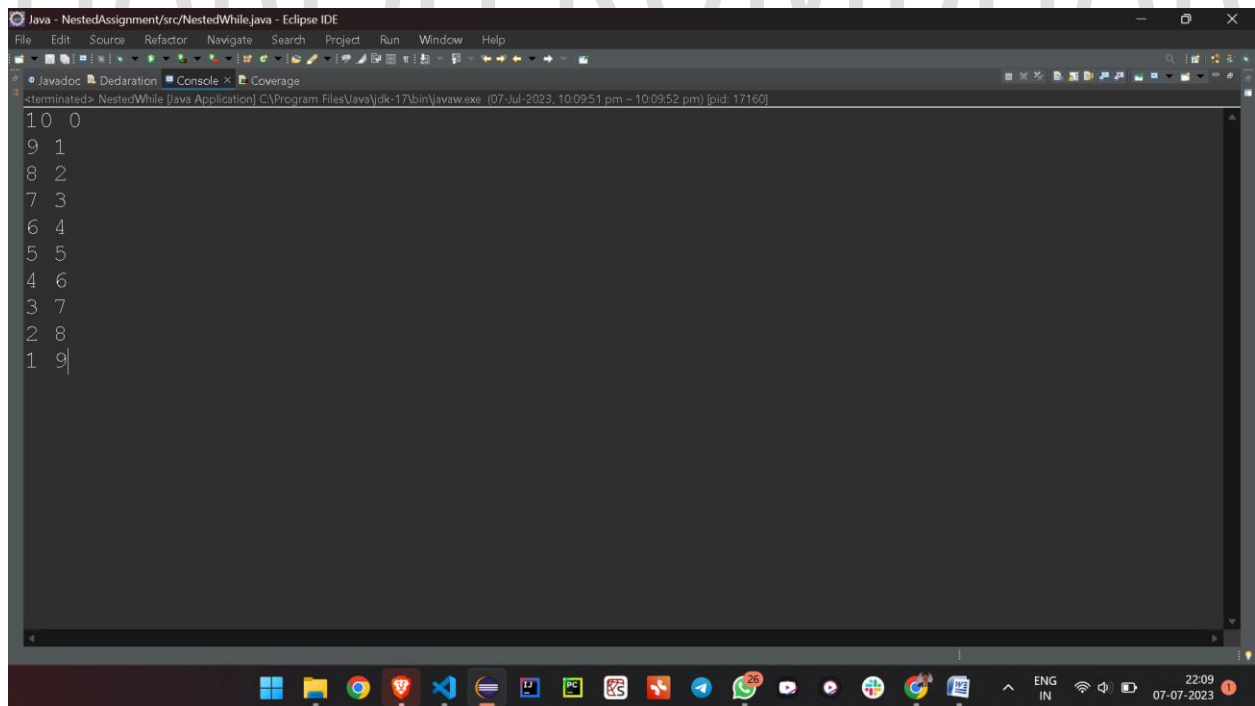
# Nested while Looping Control Construct

**Conclusion:** Nested while looping control construct is permitted.

**Code:**

```
public class NestedWhile {  
    public static void main(String[] args) {  
        int i = 10;  
        int j = 0;  
        while (i>0) {  
            while (j < 10) {  
                // System.out.println(i + " x " + i + " = " + j*j);  
                System.out.println(i+" "+j);  
                j++;  
                i--;  
            }  
        }  
    }  
}
```

**Output:**



The screenshot shows the Eclipse IDE interface. The console window displays the output of the program, which is a 10x10 grid of numbers. The first column contains numbers from 10 down to 1, and the subsequent columns contain numbers from 0 to 9. The output is as follows:

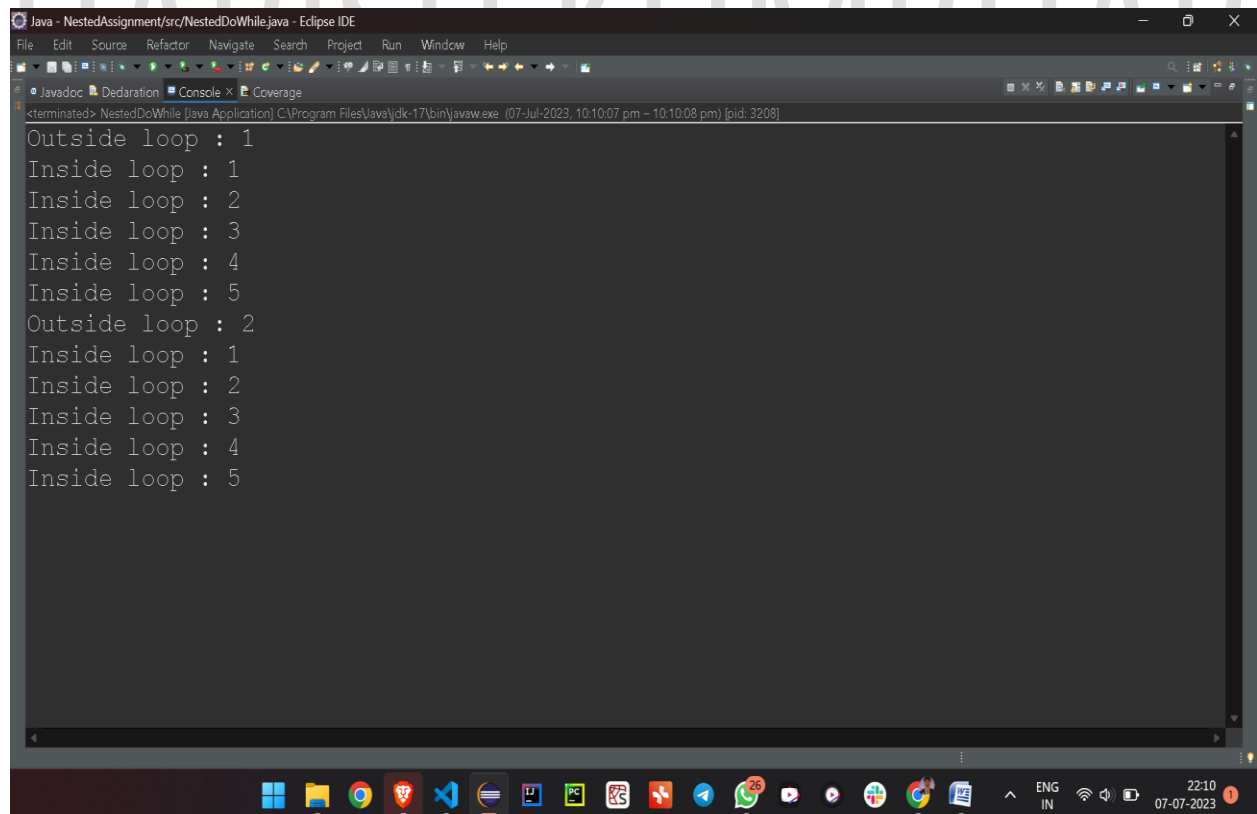
```
10 0  
9 1  
8 2  
7 3  
6 4  
5 5  
4 6  
3 7  
2 8  
1 9
```

# Nested do-while Looping Control Construct

**Conclusion:** Nested do-while looping control construct is permitted.

```
public class NestedDoWhile {  
    public static void main(String[] args) {  
        int i = 1;  
        do {  
            System.out.println("Outside loop : " + i);  
            int j = 1;  
            do {  
                System.out.println("Inside loop : " + j);  
                j++;  
            } while (j <= 5);  
            i++;  
        } while (i <= 2);  
    }  
}
```

**Output:**



The screenshot shows the Eclipse IDE interface with the console output of the program. The output is as follows:

```
<terminated> NestedDoWhile [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (07-Jul-2023, 10:10:07 pm - 10:10:08 pm) [pid: 3208]  
Outside loop : 1  
Inside loop : 1  
Inside loop : 2  
Inside loop : 3  
Inside loop : 4  
Inside loop : 5  
Outside loop : 2  
Inside loop : 1  
Inside loop : 2  
Inside loop : 3  
Inside loop : 4  
Inside loop : 5
```