

CONTROL CONSTRUCTS

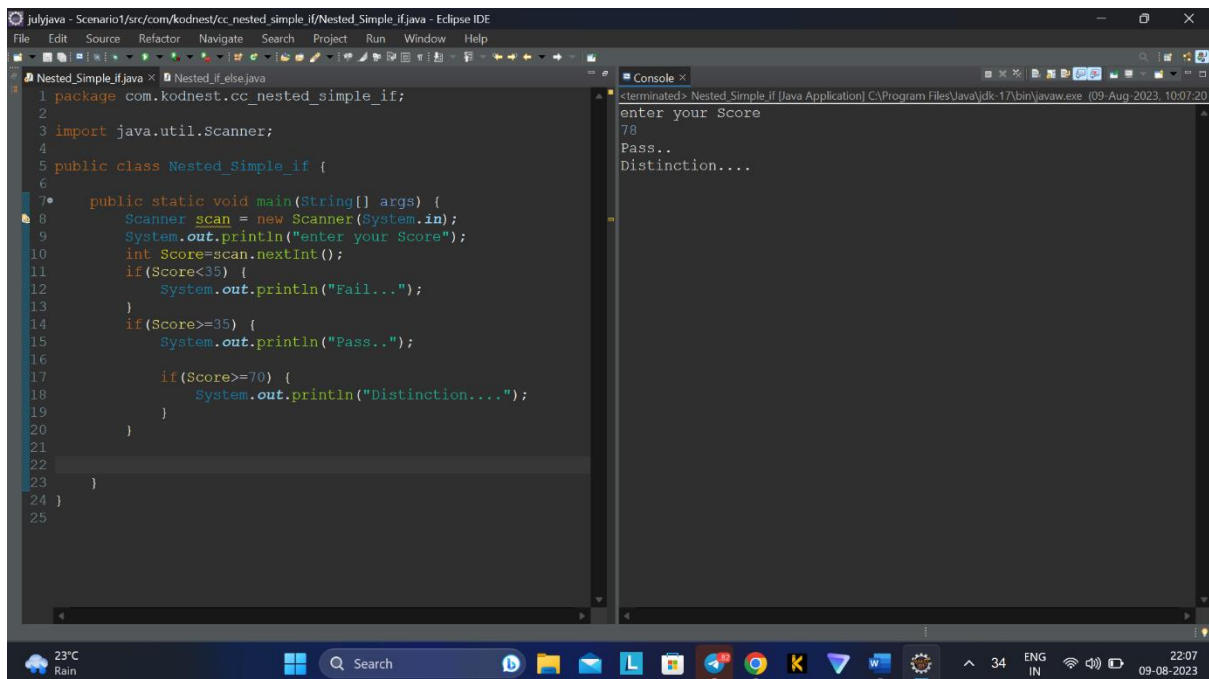
NESTED SIMPLE IF:

Nested means within. Nested if condition means if-within-if. Nested if condition comes under **decision-making statement in Java**. There could be infinite if conditions inside an if condition. The below syntax represents the Nested if condition.

Syntax:

```
if(Condition 1) {  
    // Executes when the Boolean expression 1 is true  
    if(Condition 2) {  
        // Executes when the Boolean expression 2 is true  
    }  
}
```

Example:



The screenshot shows the Eclipse IDE with a Java project named 'julyjava'. The editor displays a file 'Nested_Simple_if.java' with the following code:

```
1 package com.kodnest.cc_nested_simple_if;
2
3 import java.util.Scanner;
4
5 public class Nested_Simple_if {
6
7     public static void main(String[] args) {
8         Scanner scan = new Scanner(System.in);
9         System.out.println("enter your Score");
10        int Score=scan.nextInt();
11        if(Score<35) {
12            System.out.println("Fail...");
13        }
14        if(Score>=35) {
15            System.out.println("Pass..");
16
17            if(Score>=70) {
18                System.out.println("Distinction....");
19            }
20        }
21    }
22 }
23
24 }
25
```

The console window on the right shows the program's execution output:

```
terminated> Nested Simple if [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (09-Aug-2023, 10:07:20)
enter your Score
78
Pass..
Distinction....
```

The Windows taskbar at the bottom shows the date as 09-08-2023 and the time as 22:07.

NESTED IF ELSE:

Syntax:

```
if(condition){  
    //code if condition is true  
    if(condition){  
        //code if condition is true  
    }else{  
        //code if condition is false  
    }  
}  
else{  
    //code if condition is false  
}  
}
```

Example :

```
1 package com.kodnest.cc_nested_simple_if;
2
3 import java.util.Scanner;
4
5 public class Nested_if_else {
6
7     public static void main(String[] args) {
8         Scanner scan=new Scanner(System.in);
9         System.out.println("Enter Your Age and Weight");
10        int age=scan.nextInt();
11        int weight =scan.nextInt();
12        scan.close();
13        if(age>=18 && age<=65)
14        {
15            if(weight>=50) {
16                System.out.println("You are Eligible to Donate Blood");
17            }
18            else {
19                System.out.println("you are Not Eligible to Donate Blood");
20            }
21        }
22        else {
23            System.out.println("If you want to Donate Blood.Your Age must be between 18-65 years");
24        }
25    }
26 }
27
```

Console Output:

```
<terminated> Nested if else [Java Application] C:\Program Files\Java\jdk-1
Enter Your Age and Weight
30
56
You are Eligible to Donate Blood
```

Example :

```
1 package com.kodnest.cc_nested_simple_if;
2
3 import java.util.Scanner;
4
5 public class Nested_if_else {
6
7     public static void main(String[] args) {
8         Scanner scan=new Scanner(System.in);
9         System.out.println("Enter Your Age and Weight");
10        int age=scan.nextInt();
11
12        int weight =scan.nextInt();
13        if(age<18 || age>65)
14        {
15            System.out.println("If you want to Donate Blood.Your Age must be between 18-65 years");
16        }
17        else {
18            if(weight>=50) {
19                System.out.println("You are Eligible to Donate Blood");
20            }
21            else {
22                System.out.println("you are Not Eligible to Donate Blood");
23            }
24        }
25    }
26 }
27
```

Console Output:

```
<terminated> Nested if else [Java Application] C:\Program Files\Java\jdk-1
Enter Your Age and Weight
25
67
You are Eligible to Donate Blood
```