

Basavaraj Aili

KodNest CSR June 2023

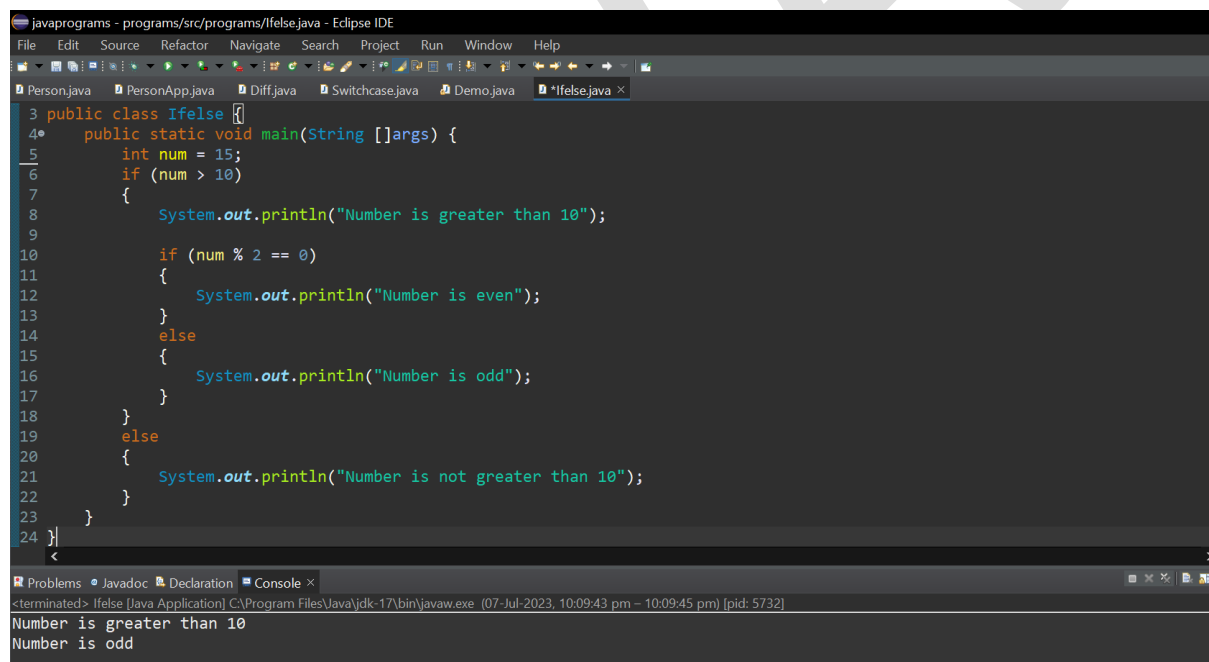
Assignment: Nested If-else, Nested while, Nested do while in JAVA

1) Is Nested Simple If permitted in JAVA?

Ans: Yes, in Java, it is possible to use nested if statements. A nested if statement is an if statement that is located inside another if statement. This allows for more complex conditional branching in your code.

Example for Nested if statement:

This is an example of a simple nested if statement where the inner if statement is nested inside the block of the outer if statement. The inner if statement is only evaluated if the condition of the outer if statement is true.



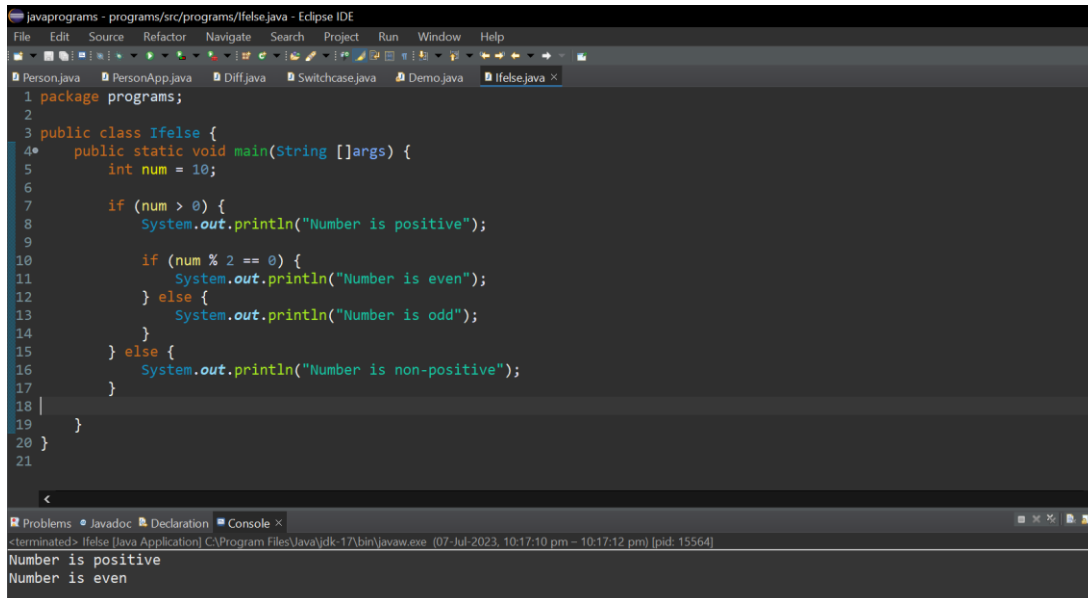
```
javaprograms - programs/src/programs/Ifelse.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Person.java PersonApp.java Diff.java Switchcase.java Demo.java *Ifelse.java x
3 public class Ifelse {
4     public static void main(String []args) {
5         int num = 15;
6         if (num > 10)
7         {
8             System.out.println("Number is greater than 10");
9
10            if (num % 2 == 0)
11            {
12                System.out.println("Number is even");
13            }
14            else
15            {
16                System.out.println("Number is odd");
17            }
18        }
19        else
20        {
21            System.out.println("Number is not greater than 10");
22        }
23    }
24 }
```

Problems Javadoc Declaration Console x
<terminated> Ifelse [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (07-Jul-2023, 10:09:43 pm - 10:09:45 pm) [pid: 5732]
Number is greater than 10
Number is odd

2) Is Nested if else permitted in JAVA?

Ans: Yes, in Java, user can have nested if-else statements. A nested if-else statement is an if-else statement that is located inside another if or else block. This allows for more complex conditional branching and handling of different scenarios in the code.

Example for Nested if – else statement:



```
1 package programs;
2
3 public class Ifelse {
4     public static void main(String []args) {
5         int num = 10;
6
7         if (num > 0) {
8             System.out.println("Number is positive");
9
10            if (num % 2 == 0) {
11                System.out.println("Number is even");
12            } else {
13                System.out.println("Number is odd");
14            }
15        } else {
16            System.out.println("Number is non-positive");
17        }
18    }
19 }
20 }
21
```

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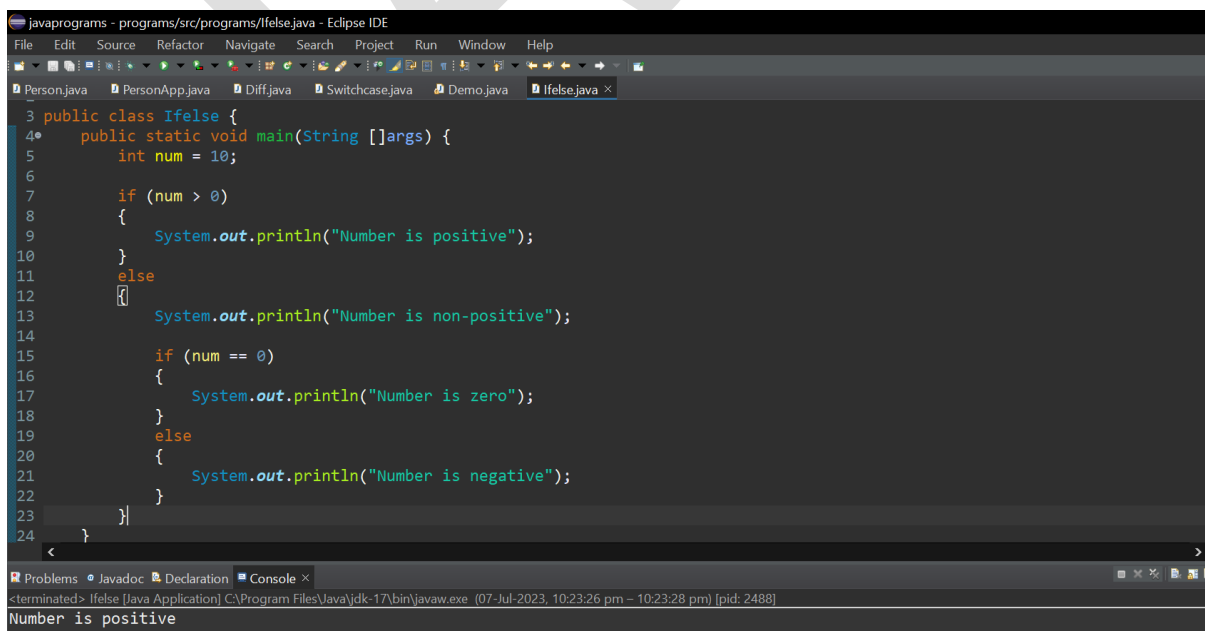
<terminated> Ifelse [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (07-Jul-2023, 10:17:10 pm – 10:17:12 pm) [pid: 15564]

Number is positive
Number is even

3) Is Nested if else in else part of code is permitted?

Ans: Yes, in Java, user can have nested if-else statements within the else part of another if-else statement. This allows for further conditional branching and handling of different scenarios based on nested conditions.

Example for Nested if – else statement:



```
3 public class Ifelse {
4     public static void main(String []args) {
5         int num = 10;
6
7         if (num > 0)
8         {
9             System.out.println("Number is positive");
10        }
11        else
12        {
13            System.out.println("Number is non-positive");
14
15            if (num == 0)
16            {
17                System.out.println("Number is zero");
18            }
19            else
20            {
21                System.out.println("Number is negative");
22            }
23        }
24    }
25 }
```

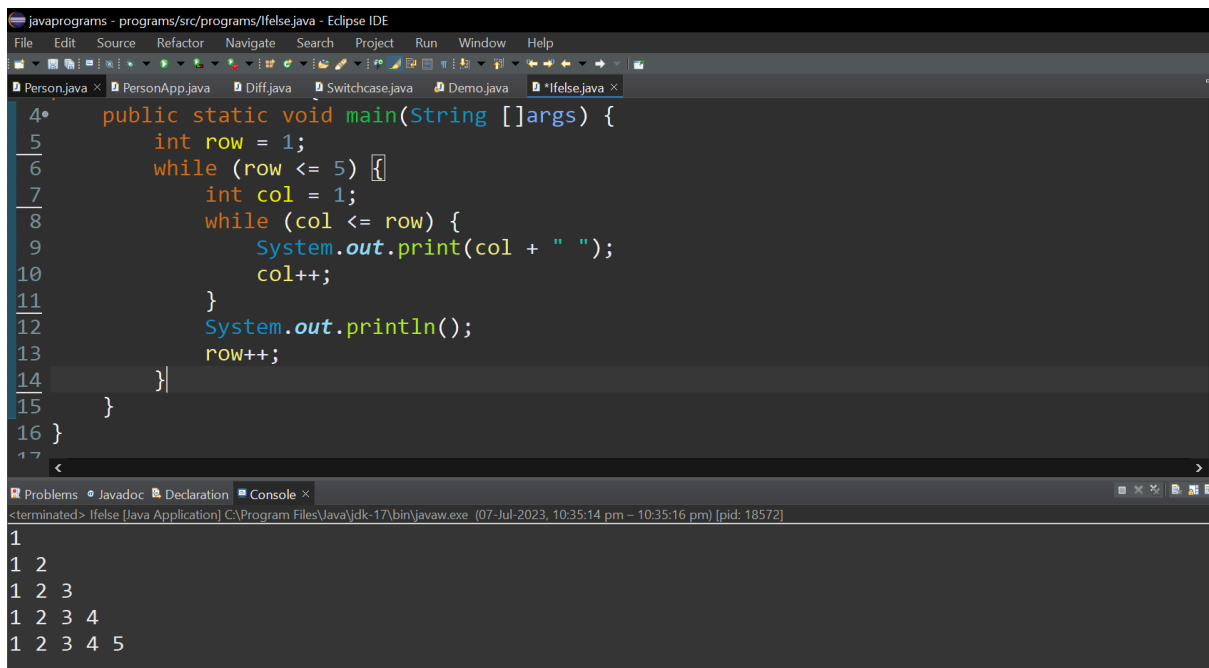
Problems • Javadoc • Declaration • Console ×

<terminated> Ifelse [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (07-Jul-2023, 10:23:26 pm – 10:23:28 pm) [pid: 2488]

Number is positive

4) Is Nested While is permitted in JAVA?

Ans: Yes, in Java, user can have nested while loops. A nested while loop is a while loop that is located inside another while loop. This allows for more complex looping structures and nested iterations in the code.



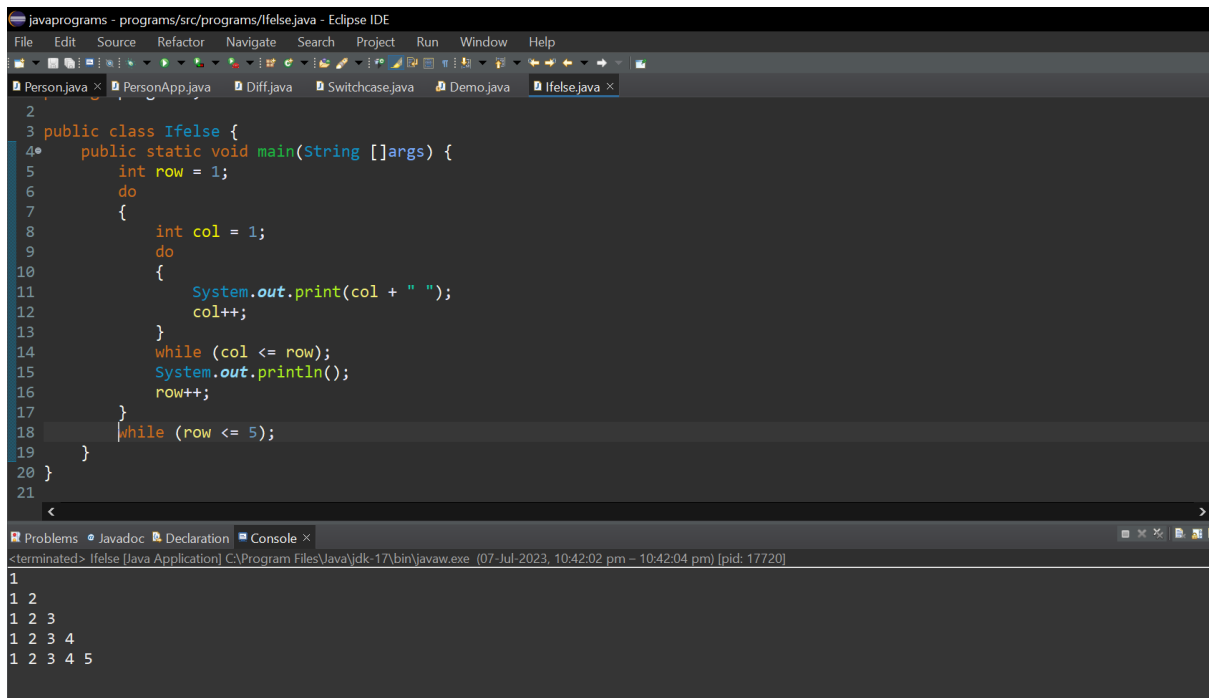
```
javaprograms - programs/src/programs/Ifelse.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Person.java PersonApp.java Diff.java Switchcase.java Demo.java *Ifelse.java
4 public static void main(String []args) {
5     int row = 1;
6     while (row <= 5) {
7         int col = 1;
8         while (col <= row) {
9             System.out.print(col + " ");
10            col++;
11        }
12        System.out.println();
13        row++;
14    }
15 }
16 }
17 }

Problems Javadoc Declaration Console
<terminated> Ifelse [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (07-Jul-2023, 10:35:14 pm - 10:35:16 pm) [pid: 18572]
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

This example demonstrates how a nested while loop can be used to generate a triangular pattern of numbers. The number of columns in each row increases incrementally as we move down the rows.

5) Is Nested do while is permitted in JAVA?

Ans: Yes, in Java, user can have nested do-while loops. A nested do-while loop is a do-while loop that is located inside another do-while loop. This allows for nested iterations and more complex looping structures in the code.



```
javaprograms - programs/src/programs/Ifelse.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Person.java PersonApp.java Diff.java Switchcase.java Demo.java Ifelse.java
2
3 public class Ifelse {
4     public static void main(String []args) {
5         int row = 1;
6         do
7         {
8             int col = 1;
9             do
10            {
11                System.out.print(col + " ");
12                col++;
13            }
14            while (col <= row);
15            System.out.println();
16            row++;
17        }
18        while (row <= 5);
19    }
20 }
21
Problems Javadoc Declaration Console
<terminated> Ifelse [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (07-Jul-2023, 10:42:02 pm - 10:42:04 pm) [pid: 17720]
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

This example generates a triangular pattern of numbers, similar to the previous example with nested while loops. The number of columns in each row increases incrementally as we move down the rows.