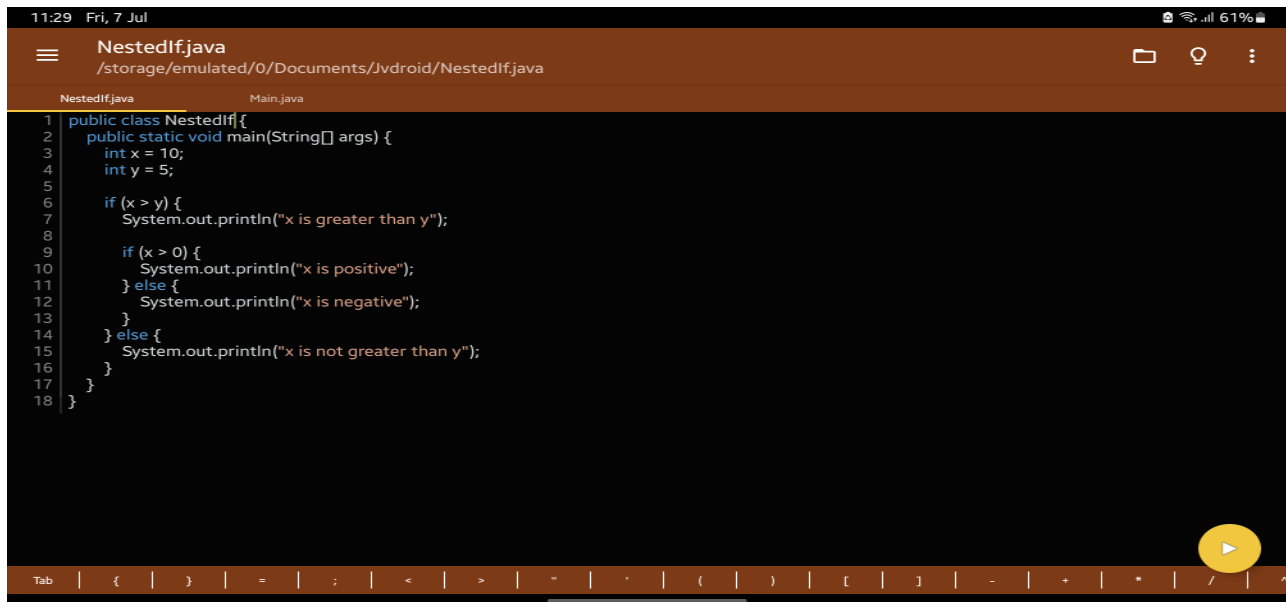


1) Is nested simple if is permitted in Java?

Yes, nested if statements are permitted in Java. A nested if statement is an if statement that is located within the body of another if statement. It allows for more complex conditional branching based on multiple conditions.

Example :



The screenshot shows an IDE window titled "NestedIf.java" with the file path "/storage/emulated/0/Documents/Jvroid/NestedIf.java". The code is as follows:

```
1 public class NestedIf {  
2     public static void main(String[] args) {  
3         int x = 10;  
4         int y = 5;  
5  
6         if (x > y) {  
7             System.out.println("x is greater than y");  
8  
9             if (x > 0) {  
10                System.out.println("x is positive");  
11            } else {  
12                System.out.println("x is negative");  
13            }  
14        } else {  
15            System.out.println("x is not greater than y");  
16        }  
17    }  
18 }
```



The screenshot shows the output window of the IDE. The output is as follows:

```
x is greater than y  
x is positive  
[Program finished]
```

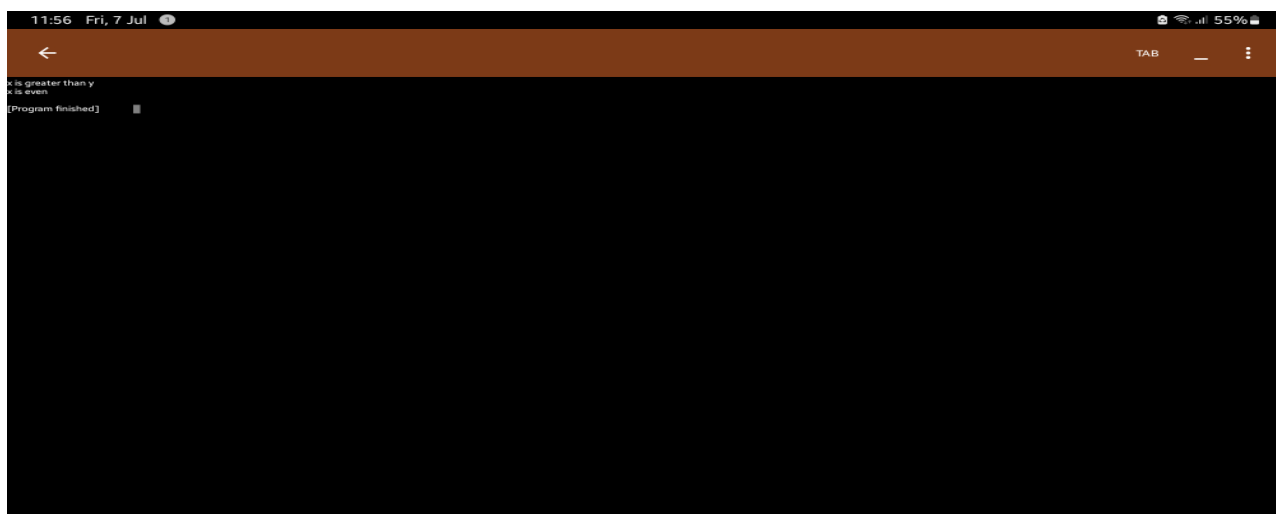
In this example, there are two if statements. The first if statement checks if x is greater than y. If it is, the nested if statement inside the body of the first if statement checks if x is positive or non-positive. Based on the values of x and y, the appropriate messages are printed.

2) Is nested if else is permitted in Java?

Yes, nested if-else statements are permitted in Java. In Java, you can nest if-else statements by placing an if-else statement inside another if or else block. This allows for more complex decision-making and branching within your code.



```
1 public class NestedIfElse{
2     public static void main(String[] args) {
3         int x = 10;
4         int y = 5;
5
6         if (x > y) {
7             System.out.println("x is greater than y");
8
9             if (x % 2 == 0) {
10                System.out.println("x is even");
11            } else {
12                System.out.println("x is odd");
13            }
14        } else {
15            System.out.println("x is less than or equal to y");
16        }
17    }
18 }
19 }
```



```
x is greater than y
x is even
[Program finished]
```

3) Is nested while is permitted in Java?

Yes, nested while loops are permitted in Java. You can have a while loop inside another while loop to create a nested loop structure. This allows for repeated execution of a block of code within another block of code.



```
1 public class NestedWhile {  
2     public static void main(String[] args) {  
3         int i = 1;  
4         int j = 1;  
5  
6         while (i <= 3) {  
7             System.out.println("Outer loop: i = " + i);  
8  
9             while (j <= 2) {  
10                System.out.println(" Inner loop: j = " + j);  
11                j++;  
12            }  
13  
14            j = 1;  
15            i++;  
16        }  
17    }  
18 }  
19
```



```
Outer loop: i = 1  
Inner loop: j = 1  
Inner loop: j = 2  
Outer loop: i = 2  
Inner loop: j = 1  
Inner loop: j = 2  
Outer loop: i = 3  
Inner loop: j = 1  
Inner loop: j = 2  
[Program finished]
```

4) Is nested do-while is permitted in Java?

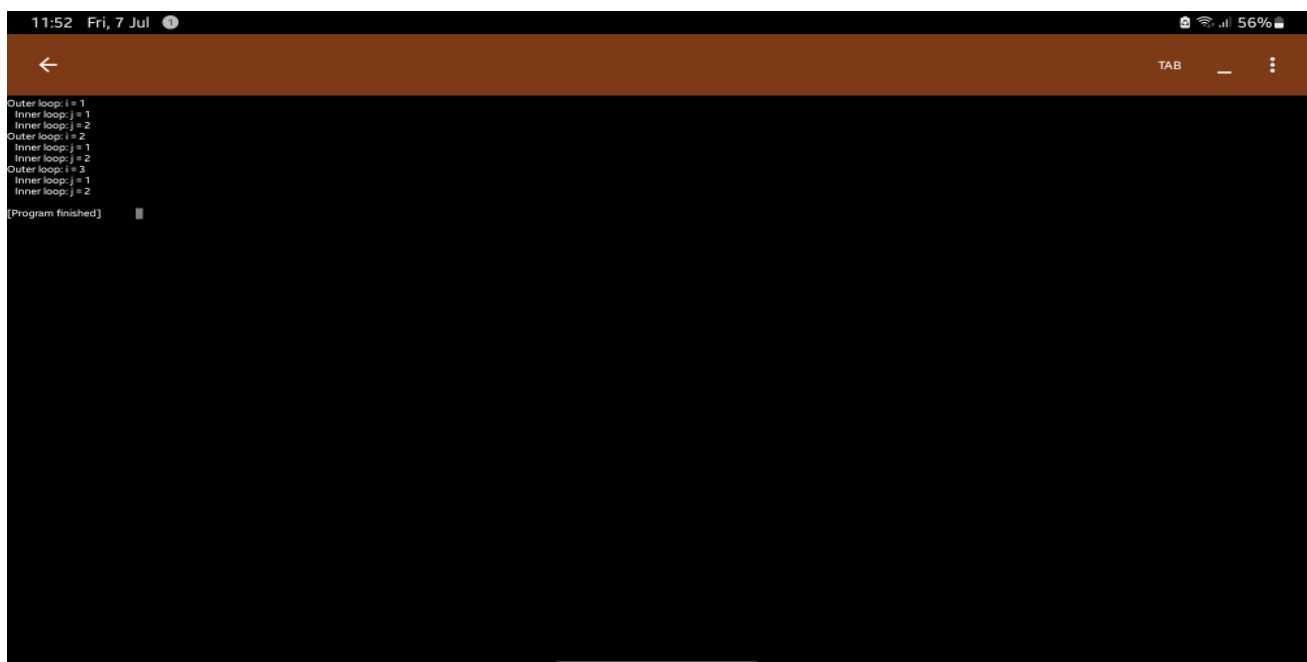
Yes, nested do-while loops are permitted in Java. You can have a do-while loop inside another do-while loop to create a nested loop structure. This allows for repeated execution of a block of code within another block of code, similar to nested while loops.



```
11:53 Fri, 7 Jul
NestedDoWhile.java
/storage/emulated/0/Documents/Jvdroid/NestedDoWhile.java

NestedDoWhile.java
NestedDoWhile.java

1 public class NestedDoWhile {
2     public static void main(String[] args) {
3         int i = 1;
4         int j = 1;
5
6         do {
7             System.out.println("Outer loop: i = " + i);
8
9             do {
10                 System.out.println(" Inner loop: j = " + j);
11                 j++;
12             } while (j <= 2);
13
14             j = 1; // Reset j for the inner loop
15             i++;
16         } while (i <= 3);
17     }
18 }
19
```



```
11:52 Fri, 7 Jul
←
TAB
Outer loop: i = 1
Inner loop: j = 1
Inner loop: j = 2
Outer loop: i = 2
Inner loop: j = 1
Inner loop: j = 2
Outer loop: i = 3
Inner loop: j = 1
Inner loop: j = 2
[Program finished]
```