System Requirements Specification Index

For

Basic Logical Operators

Version 1.0

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1 Project Abstract

In this project, you will demonstrate your understanding of Java Logical Operators. The task will focus on three essential logical operators used in Java:

- AND (&&): Evaluates to true if both conditions are true.
- OR (||): Evaluates to true if at least one of the conditions is true.
- NOT (!): Negates or inverts the boolean value of a condition.

These logical operators are fundamental for controlling the flow of execution in programs, particularly when you need to combine conditions or make decisions based on multiple factors.

2 Assessment Tasks

1. Declare Two Boolean Variables:

   You will declare two boolean variables a and b. These variables will be used to perform the logical operations required in the task.

2. Perform Logical Operations:

   You will apply the logical operators (&&, ||, !) on the boolean variables a and b.

   You will perform each of the following operations and print the result:
   - AND (&&): Check if both a and b are true.
   - OR (||): Check if at least one of a or b is true.
   - NOT (!): Negate the values of a and b.

3. Use Logical Operators in Combination:

   You will combine multiple logical operators to create more complex conditions and evaluate the results.

   Example:
   - Check if a number x is between two values using the logical AND (&&) operator.
   - Use the OR (||) operator to check if either of two conditions is true.
   - Use the NOT (!) operator to negate a condition.

4. Check whether x is greater than 5 and less than 15, or y is between 10 and 25, using the AND and OR operators.

5. You will also create other complex expressions combining &&, ||, and ! as needed and print the results.

3 Template Code Structure

3.1 Package: com.yaksha.assignment.LogicalOperatorsAssignment

Resources

Class/Interface	Description	Status
LogicalOperatorsAssignment (class)	● Main class containing the logic to demonstrate logical operators: AND (&&), OR (||), NOT (!).	Need to be implemented.

4 Execution Steps to Follow

1. **All actions like build, compile, running application, running test cases will be through Command Terminal.**
2. **To open the command terminal the test takers, need to go to Application menu (Three horizontal lines at left top) Terminal New Terminal.**
3. **This editor Auto Saves the code.**
4. **If you want to exit(logout) and continue the coding later anytime (using Save & Exit option on Assessment Landing Page) then you need to use CTRL+Shift+B-command compulsorily on code IDE. This will push or save the updated contents in the internal git/repository. Else the code will not be available in the next login.**
5. **These are time bound assessments the timer would stop if you logout and while logging in back using the same credentials the timer would resume from the same time it was stopped from the previous logout.**
6. **To run your project use command:**

```
mvn compile exec:java
-Dexec.mainClass="com.yaksha.assignment.LogicalOperatorsAssignment"
```

7. **To test your project test cases, use the command**

```
mvn test
```

8. **You need to use CTRL+Shift+B - command compulsorily on code IDE, before final submission as well. This will push or save the updated contents in the internal git/repository, and will be used to evaluate the code quality.**