**Operator and loops Solution**

1. What are the Conditional Operators in Java?

Conditional operators in Java are used to perform conditional (or ternary) operations, allowing you to make decisions based on a condition.

It is used to combine two or more boolean expressions and returns true if all the combined expressions evaluate to true, otherwise, it returns false

Syntax

if(condition - 1 && condition - 2) {

statement;

}

Logical-or operator (||)

This operator is used when we are satisfied as long as any one of the boolean expressions is evaluated as true.

Syntax

if(condition - 1 || condition - 2) {

statement;

}

Ternary operator (?:)

It is a smaller version for the if-else statement. If the condition is true then the statement - 1 is executed else the

statement - 2 is executed.

Syntax

condition? statement - 1 statement - 2;

2. What are the types of operators based on the number of operands?

Ans: There are three types of operators in java based on the number of operands. They are

. Unary operator

. Binary operator

. Ternary operator

.

3. What is the use of Switch case in Java programming?

Ans: Switch statement

The switch case in java is used to select one of many code blocks for execution.

**Break keyword**: As java reaches a break keyword/ the control breaks out of the switch block. The execution of

code stops on encountering this keyword/ and the case testing inside the block ends as the match is found. A

lot of execution time can be saved because it ignores the Jest of the code's execution when there is a break.

**Default keyword**: The keyword is used to specify the code executed when the expression does not match any

test case.

The switch case in Java works like an if-else ladder/ i.e./ multiple conditions can be checked at once. The switch is

provided with an expression that can be a constant of literal expression that can be evaluated. The value of the

expression is matched with each test case till a match is found. If there is no match/ the default keyword/ if

specified- the associated code executes. Otherwise the code specified for the matched test case is executed.

**For example**

public class Main {

public static void main(String[] args) {

int day = 4;

switch (day) {

case 1:

System.out.println("monday");

break;

case 2:

System.out.println("tuesday");

break;

case 3:

System.out.println("wednesday");

break;

case 4:

System.out.println("thursday");

break;

case 5:

System.out.println("friday");

break;

case 6:

System.out.println("saturday");

case 6:

System.out.println("sunday");

break;

default: System.out.println("wrong day number");

}

}

}

Output:

Thursday

4. What are the priority levels of arithmeti6 operation in java

Two priority levels arithmetic operations

1. High priority : \* / %
2. low priority : + -

5.What are the conditional statements and use of conditional in Java?

In Java, conditional statements are used to make decisions in your code based on certain conditions or expressions. These statements allow you to control the flow of your program by executing different blocks of code depending on whether a condition evaluates to true or false. There are three main conditional statements in Java:

**1.if Statement:** The if statement is used to execute a block of code if a specified condition is true. If the condition is false, the code block is skipped.

if (condition) {

// Code to be executed if the condition is true

}

**2.if-else Statement:** The if-else statement is used to execute one block of code if a condition is true and another block of code if the condition is false.

if (condition) {

// Code to be executed if the condition is true

} else {

// Code to be executed if the condition is false

}

**3. if-else if-else Statement:** This statement allows you to check multiple conditions one by one and execute the code block associated with the first true condition. If none of the conditions is true, the else block is executed (if provided).

if (condition1) {

// Code to be executed if condition1 is true

} else if (condition2) {

// Code to be executed if condition2 is true

} else {

// Code to be executed if none of the conditions is true

}

Conditional statements are fundamental in programming because they allow you to create logic that responds to various situations, making your code more versatile and responsive. You can also use logical operators (&& for "and," || for "or," ! for "not") to create more complex conditions in your if statements.

6.what is the syntax of if else statement?

Syntax:

if(Condition)

{

// if true

}

Else

{

//if condition is false

}

7. What are the 3 types of iterative statements in Java?

1. for loop
2. do-while loop
3. while loop

8. Write the differences between for loop and do-while.

| **For loop** | **Do-While loop** |
| --- | --- |
| Statement(s) is executed once the condition is checked. | Condition is checked after the statement(s) is executed. |
| It might be that statement(s) gets executed zero times. | Statement(s) is executed at least once. |
| For the single statement, the bracket is not compulsory. | Brackets are always compulsory. |
| Initialization may be outside or in the condition box. | Initialization may be outside or within the loop. |
| for loop is entry controlled loop. | do-while is exit controlled loop. |
| for ( init ; condition ; iteration ) { statement (s); } | do { statement(s); } while (condition); |

9.Write a program to print number from 1to 10

class Test{

public static void main(String[] args)

{

for(int i=1;i<=10;i++)

{

System.out.println(i);

}

}