Conditional Expression

In this lesson, an explanation of what conditional expressions are, how to use them, and their basic syntax is provided.

We'll cover the following

- Introduction
- Syntax
- Sample code

Introduction

A **conditional expression** is a concise way to write the equivalent of an **if-else** statement.

This kind of expression can help to produce highly readable assignment statements fitting onto *one* line of the source code.

Syntax

This is the syntax:

```
( condition ) ? expressionIfTrue : expressionIfFalse;
```

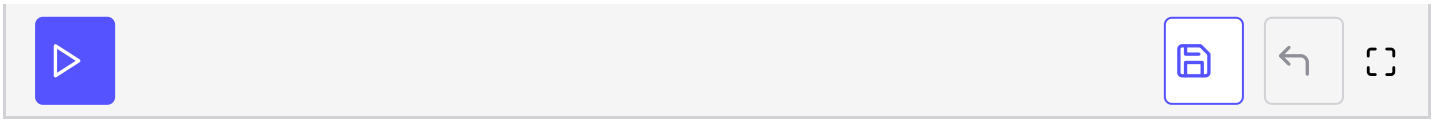
1. The condition is evaluated to see whether it holds true or not
2. If the result is **true**, then only the `expressionIfTrue` is evaluated, i.e., the code block between the `?` and the `:` is executed.
3. If the condition evaluates to **false**, then the resulting value is given by the evaluation of the **expressionIfFalse** branch of the *conditional expression*, i.e., the code block between `:` and the semi-colon.

A common use of conditional expression is to assign values using conditional blocks in a simple and concise manner. Let's look at the code below to understand how this is useful.

Sample code

See the sample code below:

```
class conditional_exp {
    public static void main(String[] args) {
        int x = 10;
        int y = 5;
        int answer;
        // Using conditional expression
        answer = (x > y) ? x : y;
        System.out.println("Answer using conditional: " + answer);
        // The above code is equivalent to:
        // Using the if-else method
        if (x > y) {
            answer = x;
        } else {
            answer = y;
        }
        System.out.println("Answer using if-else: " + answer);
    }
}
```



The code given above stores the maximum of two values in the variable `answer`. As you can see, this makes simple conditionals all the easier.

> **Note:** Use the conditional expression only if you feel that it really enhances the readability.

Extra Task:

See if you can come up with a few uses of the conditional constructs you have just learned.

In the next lesson, we will solve a challenge related to the conditional statement.