

# Java if else

Topics : [JAVA](#)

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Java if else statement is decision making statements. It checks one or more conditions in program.

Java has the following four conditional statements.

1. **if statement** - An if statement consists of a boolean expression followed by one or more statements.
2. **if...else statement** - An if statement can be followed by an optional else statement, which executes when the boolean expression is false.
3. **nested if statement** - We can use one if or else if statement inside another if or else if statement(s).
4. **switch statement** - We can use switch statement to specify many alternative blocks of code to be executed.

## if Statement

We can use if statement to specify a block of code to be executed, if a specified condition is true

**Syntax :**

```
if (condition) {  
    // block of code to be executed if the condition is true  
}
```

## if...else statement

We can use else statement to specify a block of code to be executed, if the same condition is false

**Syntax :**

```
if (condition) {  
    // A block of code to be executed if the condition is true.  
} else {  
    // A block of code to be executed if the condition is false.  
}
```

## else if statement

We can use the else if statement to specify a new condition if the first condition is false.

## Syntax :

```
if (condition1) {  
    // block of code to be executed if condition1 is true,  
} else if (condition2) {  
    // block of code to be executed if the condition1 is false and condition2 is true.  
} else {  
    // block of code to be executed if the condition1 is false and condition2 is false.  
}
```

Using if else statements, we can check usual logical conditions from mathematics as below.

- Less than:  $p < q$
- Less than or equal to:  $p \leq q$
- Greater than:  $p > q$
- Greater than or equal to:  $p \geq q$
- Equal to  $p == q$
- Not Equal to:  $p != q$

## Example :

```
import java.util.*;  
  
public class Aryatechno {  
    public static void main(String[] args) {  
        int marks = 42;  
        if (marks > 90) {  
            System.out.println("You got Grade A1 in 10th Exam.");  
        } else if (marks > 80) {  
            System.out.println("You got Grade A2 in 10th Exam.");  
        } else if (marks > 60) {  
            System.out.println("You got Grade B in 10th Exam.");  
        } else if (marks > 40) {  
            System.out.println("You got Grade C in 10th Exam.");  
        } else {  
            System.out.println("You failed in 10th Exam.");  
        }  
    }  
}
```

## Output :

```
You got Grade C in 10th Exam.
```