**Using Different Comparison Operators:**

The different comparison operators are

==, !=, >, <, >=, <=

We have already seen == operator above.

**Example with != :**

**public** **class** JavaExamples {

**public** **static** **void** main(String [] args){

**int** a = 5;

**int** b = 8;

**if**(a != b) {

System.***out***.println("a and b are not equal");

}

**else** {

System.***out***.println("both the values are equal");

}

}

}

Result: a and b are not equal

**Example with > :**

**public** **class** JavaExamples {

**public** **static** **void** main(String [] args){

**int** a = 5;

**int** b = 8;

**if**(a > b) {

System.***out***.println("a is greater than b");

}

**else** {

System.***out***.println("a is less than b");

}

}

}

Result: a is less than b

**Example with <:**

**public** **class** JavaExamples {

**public** **static** **void** main(String [] args){

**int** a = 5;

**int** b = 8;

**if**(a < b) {

System.***out***.println("a is less than b");

}

**else** {

System.***out***.println("a is greater than b");

}

}

}

Result: a is less than b

**Example with >= :**

**public** **class** JavaExamples {

**public** **static** **void** main(String [] args){

**int** a = 9;

**int** b = 8;

**if**(a >= b) {

System.***out***.println("a is greater than or equal to b");

}

**else** {

System.***out***.println("a is less than b");

}

}

}

Result: a is greater than or equal to b

**Example with <= :**

**public** **class** JavaExamples {

**public** **static** **void** main(String [] args){

**int** a = 5;

**int** b = 8;

**if**(a <= b) {

System.***out***.println("a is less than or equal b");

}

**else** {

System.***out***.println("a is greater than b");

}

}

}

Result: a is less than or equal to b

**Using Different Logical Operators:**

Different logical operators that we have are:

&& (Logical AND), || (Logical OR) and ! (Negation)

**Using && (Logical AND):**

&& (Logical AND) is used if we have to verify two or more conditions and if we want all the conditions to be true. If all the conditions are true then only the block of code under the condition will execute.

Example 1 with Two Conditions:

**public** **class** JavaExamples {

**public** **static** **void** main(String [] args){

**int** a = 5;

**int** b = 8;

**int** c = 10;

**if**(a < b && a < c) {

System.***out***.println("a is less than b and c");

}

**else** {

System.***out***.println("a may be greater than b or c");

}

}

}

**Example 2 with three conditions:**

**public** **class** JavaExamples {

**public** **static** **void** main(String [] args){

**int** a = 5;

**int** b = 8;

**int** c = 10;

**int** d = 20;

**if**(a < b && a < c && a < d) {

System.***out***.println("a is less than b and c and d");

}

**else** {

System.***out***.println("a may be greater than b or c or d");

}

}

}

**Using || (Logical OR):**

|| (Logical OR) is used if we have to verify two or more conditions and if we want at least one of the conditions to be true. If at least one of the conditions is true then only the block of code under the condition will execute.

Example 1 with two conditions:

**public** **class** JavaExamples {

**public** **static** **void** main(String [] args){

**int** a = 5;

**int** b = 8;

**int** c = 10;

**if**(a < b || a < c) {

System.***out***.println("a is smaller than one of b or c");

}

**else** {

System.***out***.println("a is greater than b or c");

}

}

}

Example 2 with three conditions:

**public** **class** JavaExamples {

**public** **static** **void** main(String [] args){

**int** a = 21;

**int** b = 8;

**int** c = 10;

**int** d = 20;

**if**(a < b || a < c || a < d) {

System.***out***.println("a is less than b and c and d");

}

**else** {

System.***out***.println("a is greater than b and c and d");

}

}

}

Using ! (Negation):

**public** **class** JavaExamples {

**public** **static** **void** main(String [] args){

**boolean** test = **true**;

**if**(!test) {

System.***out***.println("test is false");

}

**else** {

System.***out***.println("test is true");

}

}

}