

University of Science and Technology Chittagong



Department of Computer Science and Engineering

Lab Task 4

Object Oriented Programming (Java)

Programming Basics

Course Instructor: Debabrata Mallick

Submitted By: Reya Moni

Student ID: 0022520005101026

Roll No: 25070126

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Java Booleans

The screenshot shows a Java code editor with a file named MyBool.java. The code defines a class MyBool with a main method that prints two boolean values. The output window shows the words "true" and "false" printed to the console.

```
J MyBool.java X
J MyBool.java > Run | Debug
1 public class MyBool {
2     public static void main(String[] args) {
3         boolean isJavaFun = true;
4         boolean isFishTasty = false;
5         System.out.println(isJavaFun);
6         System.out.println(isFishTasty);
7     }
8 }
```

```
true
false
```

Very often in programming, need a data type that can only have one of two values, like:

- YES / NO
- ON / OFF
- TRUE / FALSE

For this, Java has a **boolean** data type, which can store **true** or **false** values.

A boolean type is declared with the **boolean** keyword and can only take the values **true** or **false**.

Boolean Expressions

The screenshot shows a Java code editor with a file named MyBool.java. The code defines a class MyBool with a main method that prints the result of a boolean expression (x > y). The output window shows the word "true" printed to the console.

```
J MyBool.java X
C:\Users\asus\OneDrive\Desktop\java project,r\MyBool.java
1 public class MyBool {
2     public static void main(String[] args) {
3         int x = 10;
4         int y = 9;
5         System.out.println(x > y); // returns true,
6     }
7 }
```

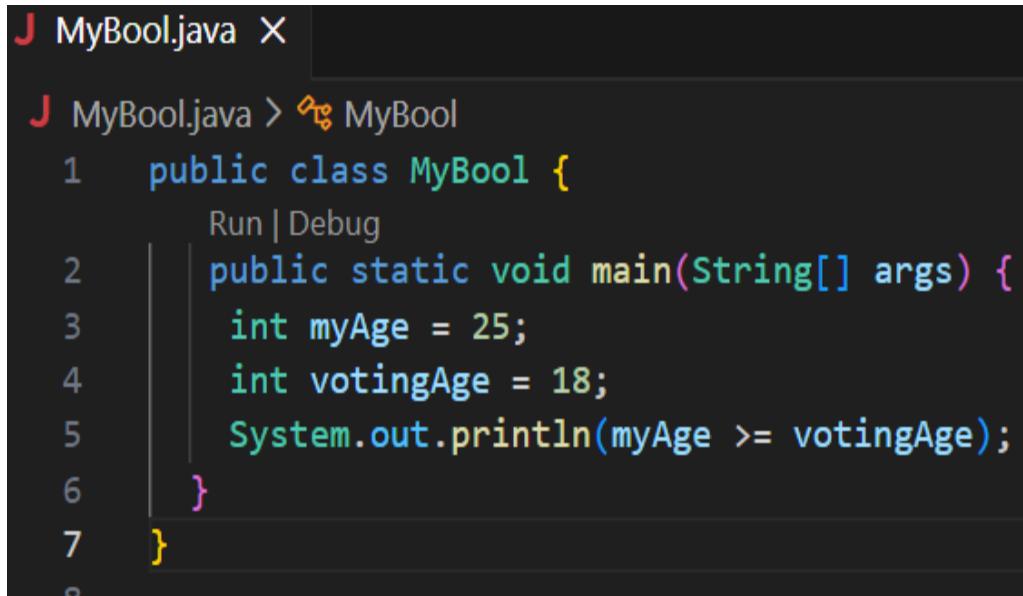
```
true
```

A boolean expression returns a boolean value: **true** or **false**.

This is useful to build logic and make decisions in programs.

For example, you can use a [comparison operator](#), such as the **greater than** (**>**) operator, to find out if an expression (or a variable) is true or false.

Real Life Example



```
J MyBool.java X
J MyBool.java > ⌂ MyBool
1 public class MyBool {
2     Run | Debug
3     public static void main(String[] args) {
4         int myAge = 25;
5         int votingAge = 18;
6         System.out.println(myAge >= votingAge);
7     }
8 }
```

true

Let's think of a "real life example" where we need to find out if a person is old enough to vote.

In the example below, we use the **`>=`** comparison operator to find out if the age (25) is **greater than OR equal to** the voting age limit, which is set to **18**.

END