

Introduction to Wrapper Class:

Let us first understand why wrapper class?

Java is an impure object-oriented programming language because it supports **primitive data types**.

You may be wondering; does it really matter if java is pure or impure object oriented

To understand this, you must know an important fact about primitive data types which is **Primitive data types are not treated as object in java**

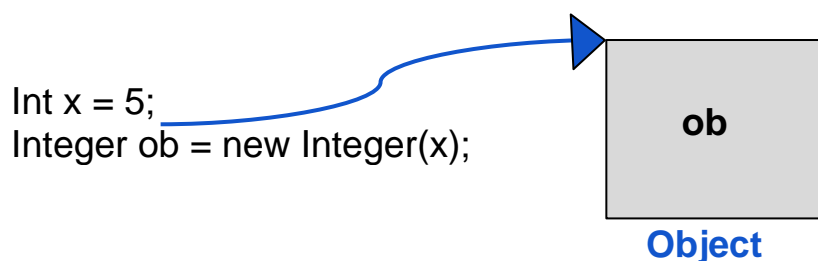
However, 100% pure object-oriented programs can be written in java using **wrapper class**

Now you understood why wrapper class lets us understand what is wrapper class.

What is Wrapper class?

The **Wrapper class** in java is a class that provides the mechanism to **convert primitive data types into objects and objects into primitive data type**.

Well how if you wonder, consider the below example.



In the above example `int` is a **primitive data** type and `Integer` is a **wrapper class**. Let us have a look at one more example of character data type.

If you are using a single character value, you will use the primitive char type

```
char ch = 'a'
```

There are times, however, when you need to use a char as an object - for example, as a method argument where an object is expected.

The java programming language provides a wrapper class that “wraps” the char in a character object for this purpose. An object of type character contains a single field, whose type is char. This character class also offers a number of useful class (i.e. static) methods for manipulating characters.

```
Character characterObj = new Character('a');
```

You can create a character object with character constructor.

Advantage of wrapper class: The program becomes pure object oriented

Disadvantage of wrapper class: Execution speed decreases.

Advantage of primitive data type: Faster in execution

Disadvantage of primitive data type: The program becomes impure object oriented.