Object Oriented Programming – SCJ2153

Wrapper class

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Numeric Data Type Wrappers

- Java provides wrapper classes for all of the primitive data types.
- The numeric primitive wrapper classes are:

Wrapper Class	Numeric Primitive Type It Applies To
`Byte`	`byte`
`Double`	`double`
`Float`	`float`
`Integer`	`int`
`Long`	`long`
`Short`	`short`

Creating a Wrapper Object

- To create objects from these wrapper classes, you can pass a value to the constructor:

```
Integer number = new Integer(7);
```

- You can also assign a primitive value to a wrapper class object:

```
Integer number;
number = 7;
```

The Parse Methods

- Recall from Lab 1, we converted `String` input (from `JOptionPane`) into numbers.
- Any `String` containing a number, such as “280”, can be converted to a numeric data type.
- Each of the numeric wrapper classes has a static method that converts a string to a number.
  - The `Integer` class has a method that converts a `String` to an `int`,
  - The `Double` class has a method that converts a `String` to a `double`,
  - etc.
- These methods are known as *parse methods* because their names begin with the word “parse.”

The Parse Methods

```
// Store 1 in bVar.
byte bVar = Byte.parseByte("1");
// Store 2599 in iVar.
int iVar = Integer.parseInt("2599");
// Store 10 in sVar.
short sVar = Short.parseShort("10");
// Store 15908 in lVar.
long lVar = Long.parseLong("15908");
// Store 12.3 in fVar.
float fVar = Float.parseFloat("12.3");
// Store 7945.6 in dVar.
double dVar = Double.parseDouble("7945.6");
```

- The parse methods all throw a `NumberFormatException` if the `String` object does not represent a numeric value.