Object-Oriented Analysis & Java

# Practical 4: Java classes

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## Exercise:

1. For this exercise, create a new project with 2 packages: `com.eisti.practical4` will contain your `Main` class and `com.eisti.hex` will contain your `Hexadecimal` class.
2. Create a class `Hexadecimal` with a single String attribute called `hex` and the following methods:
    a. `private int[] convertToInt()`: convert the hexadecimal value to an array of integers with each cell of the array corresponding to the decimal value of the character at the same position. This method will throw a custom exception called `InvalidHexException` if it encounters a character that is not an hexadecimal number.
    Example: `convertToInt()` returns `[15, 0]`
    b. `private int convertToDec(int[] arr)`: convert the array of integers return by the previous method to a single integer corresponding to the decimal value of the hexadecimal number.
    Example: `convertToDec([15, 0])` returns `240`
    c. `public int decimalValue()`: call the previous methods to return the decimal value.
    Example: `new Hexadecimal("F0").decimalValue()` returns `240`
3. In the main method of your `Main` class, write a code that asks the user to input a hexadecimal number and prints its decimal value. Handle all the exceptions with a try/catch.