# Assignment #2

This assignment relates to the following Course Learning Requirements:

CLR 1:  Define, analyze, and document the logic of a solution to a given problem.

CLR 2: Implement the solution to a given problem by writing the appropriate code in a high-level language (Java).

CLR 4: Install and use the Java Development, Runtime Environment, and documentation libraries.

CLR 7: Create documentation and a Java solution for programming problems that adhere to the submission standard identified within the timeframe given in the problem description.

Objective of this Assignment:

Using the Scanner and Math classes from the Java API, write a single class application with 3 methods to input and output the number.

The objective of assignment is to receive an input from a user using Scanner object and display the inputted number, provided following conditions are met: the displayed number is between 1 and 5.

So if the users enters a number between 1 and 5 display that number, if the number is greater than 5, display 5 and if the number is less than 1, display 1.

There are several ways to design the logic for this assignment and as long as the logic gets the correct result, it is correct!

**Pre-Assignment Instructions:**

1. To prepare you for this assignment, read the module 2 content and follow the embedded learning activities.
2. Complete the Lab 2 required reading.
3. Develop this program locally on your machine in a plain text editor.

**Assignment Steps:**

1. The program may not display a number more than 5.
2. The program may not display a number less than 1.
3. Create a class called **TestMax**.
4. Declare two instance variables of type **int**: **minNum** and **maxNum**. Assign the value 1 to **minNum**, and the value 5 to **maxNum**.
5. **public int inputNum()**

* Write a method named **inputNum** which uses a **Scanner** object to allow a user to enter any number (you may assume they will always enter an **integer**).
* The method should return the number inputted by user.

1. **public void displayNum(int userNum)**

* Write a method named **displayNum** which receives an integer as a parameter and returns nothing.
* This method should use the **min and max** methods of the **Math** class, the **minNum** and **maxNum** variables, and the **printf** method of the **System.out** object to display the number the  user now has.
* Remember, the program may only display a number between 1 and 5, regardless of what the user has entered.

1. **Create a class called TestTestMax with a public static void main(String[] args)** **method**

* In the **main** method, declare a variable of type **TestMax**.
* Initialize and instantiate the **TestMax** object.
* Using your **TestMax** object, call the **inputNum** method, and pass the result to the **displayNum** method.

1. If needed, you may store the interim values in local variables.
2. Sample test cases to check your logic:

* input: 5 [output: 5]
* input: 6 [output: 5]
* input: 3 [output: 3]
* input: -1 [output: 1]
* input: 0 [output: 1]

1. Your assignment is to be submitted on Brightspace as a Java files. It should be submitted with the following guidelines:

* Include the file header using the template provided.
* Follow expected style guidelines:

1. Use “Egyptian” style braces for all classes and methods.
2. Indent your code using 4 spaces (no tabs).
3. Follow naming conventions for all class, variable, and method identifiers.
4. Use appropriate whitespace for readability.
5. Comment your code (no less than one comment per class, and one per method).

* Files must be named **TestMax.java**. and **TestTestMax.java**
* Method names must match those in the requirements above, exactly.