Exercise 1 (10 points)

- The first lines of all source files must be comment containing your name & ID
- Put all files (source, input, output) in folder Ex1_xxx where xxx = your full ID. That is, your source files must be in package Ex1_xxx and input/output files (if there is any) must be read from/write to this folder
- Zip Ex1_xxx & submits it to Google Classroom. Email submission is not accepted

==========

1. Read an integer X from user. Keep looping for a new input if X < 2 or X > 1000.
2. Once you get a valid X, check whether it is a prime or not
   2.1 If it is (X is divisible by only 1 and itself) -> report that it is a prime
   2.2 If it is not -> find the immediate smaller value that is prime

Note

- You can loop and check the divisor from 2 to X/2, i.e. no need to loop until X
- Since you will have to run the same code many times in 2.2, write a method

```
public static boolean isPrime(int value)
{
   // Write your own code
}
```

```
--- exec-maven-plugin:3.0.0:exec (default-cli) @ solutions ---
Enter integer x (2-1000) =
1
Enter integer x (2-1000) =
0
Enter integer x (2-1000) =
-1
Enter integer x (2-1000) =
47

47 is prime
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
```

```
--- exec-maven-plugin:3.0.0:exec (default-cli) @ solutions ---
Enter integer x (2-1000) =
2000
Enter integer x (2-1000) =
1000

1000 is not prime
The immediate smaller value that is prime = 997
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
```

```
--- exec-maven-plugin:3.0.0:exec (default-cli) @ solutions ---
Enter integer x (2-1000) =
555

555 is not prime
The immediate smaller value that is prime = 547
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
```