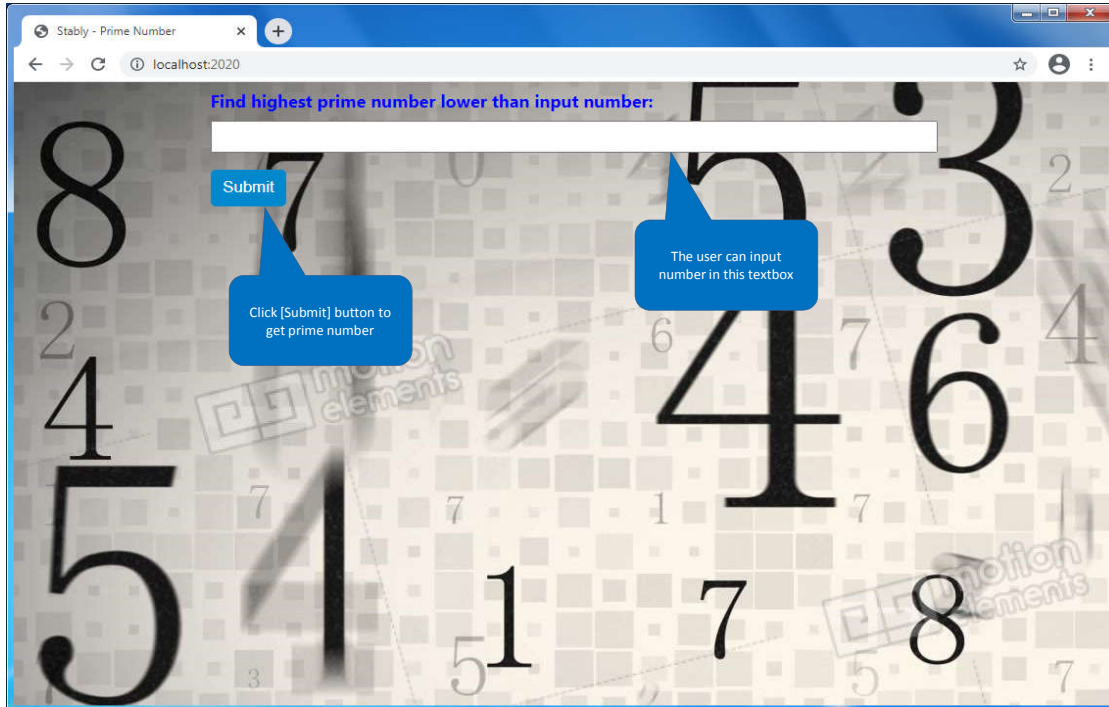# Stably - Interview Project - Prime Number

● **General Description:**

The web application that takes in a number and return to the user the highest prime number lower than the input number.

● **Front End - Web UI**

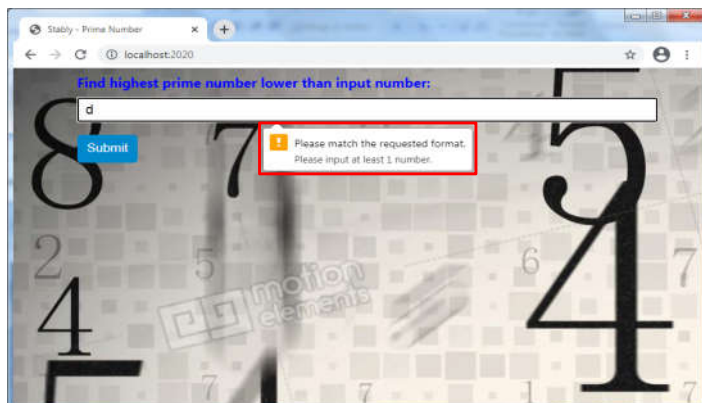1. When access url : http://localhost:2020/, we will see the UI below.
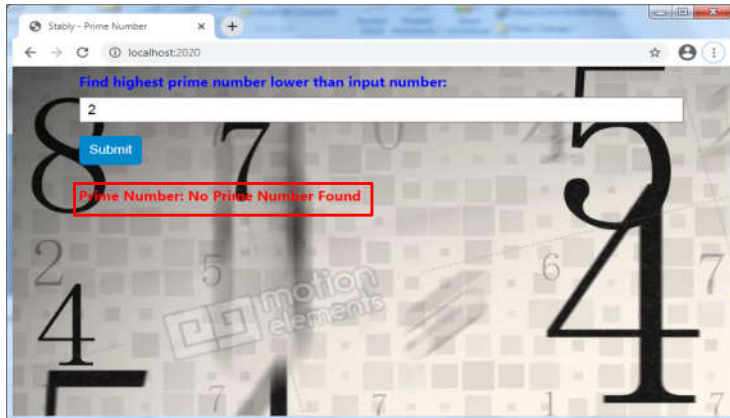

2. Client validation:

When the user do not input anything and then click button [Submit], a message "Please fill out this field" is displayed.

When the user input character which is not number format and then click button [Submit], a message "Please input at least 1 number" is displayed.
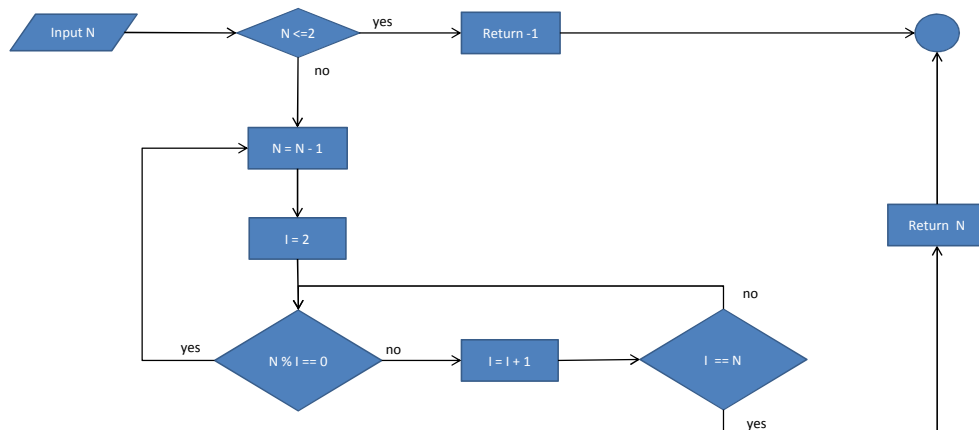
3. When the user input valid number and then click button [Submit], the result is displayed as below.

● **Back End - NumberService**

When click button [Submit], the client will call REST API to get prime number. The service on backend is call Number Service.
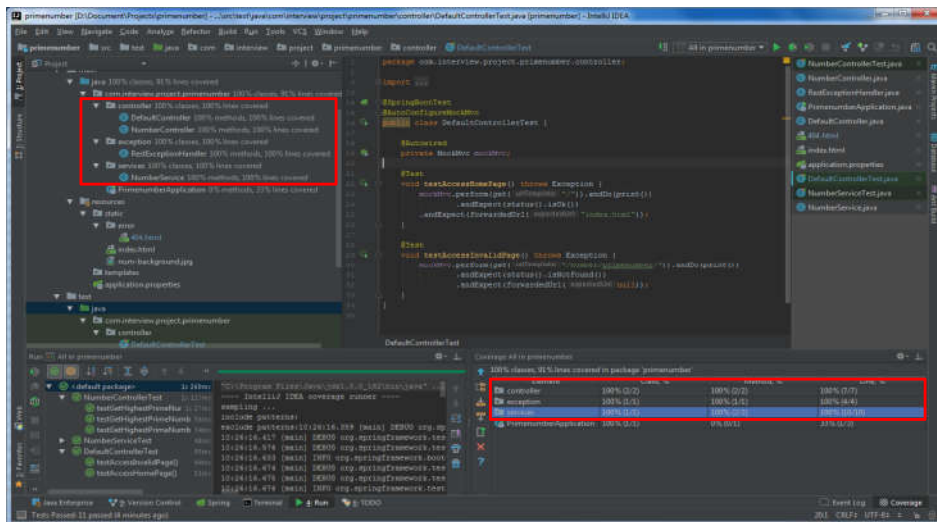
1. Algorithm of finding prime number:

2. API description:
    Rest Http Get with url : /number/primenumber/{inputNumber}
    Input validation: the number service will return -1 in case invalid input: not a number or a number is large than Integer Max Value(2,147,483,647(inclusive) (2^31 -1))

3. Test coverage:

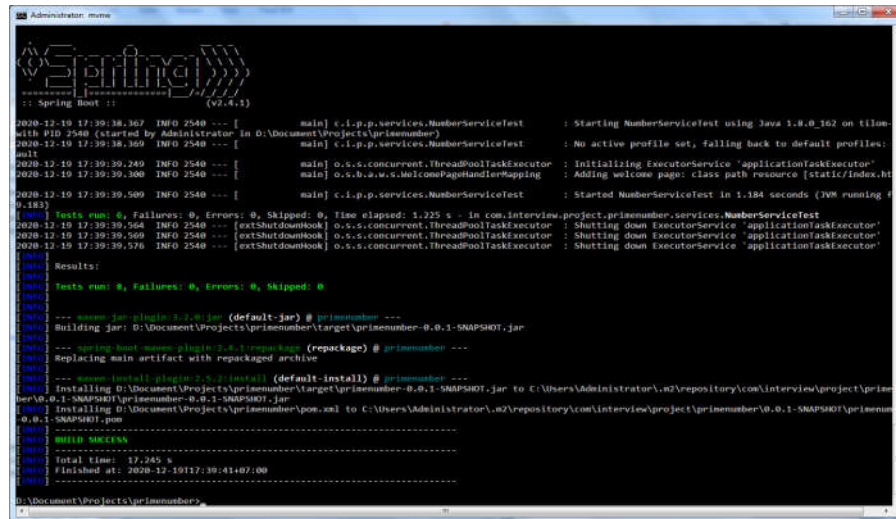4. The service is created by Java, SpringBoot application. Please checkout source code at git repository:
   https://github.com/tilomvn/stably-primenumber.git

● **How to build and run application**

Before build, make sure you have the Java JDK 1.8, Java 8 already installed on your system. And should connect to internet for auto downloading some reference library.
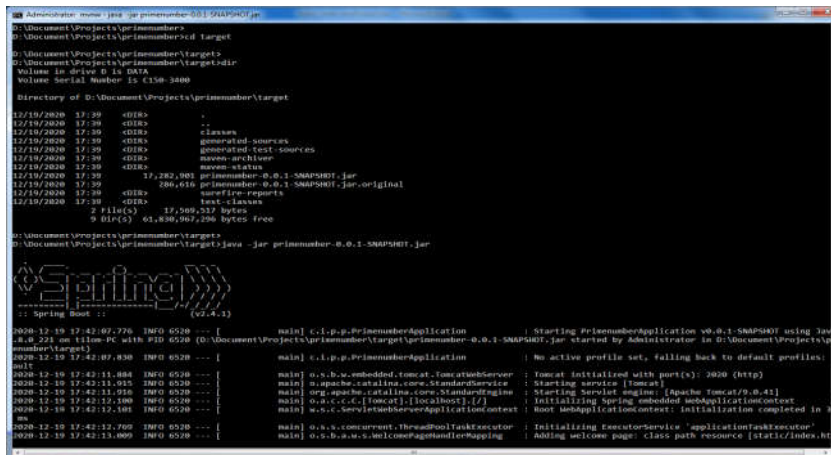
Once checkout source code, use maven command to build as below:
1. Use cd command to access to the target directory: cd /primenumber
2. Run maven command:
    mvnw clean
    mvnw compile
    mvnw install

Run your application by command:
1. Use cd command to access to the target directory: cd /primenumber/target
2. Run command: java -jar primenumber-0.0.1-SNAPSHOT.jar

If you don't want to build, just take file [primenumber-0.0.1-SNAPSHOT.jar] in release folder of source code.
Note that the default port of application is 2020, if you want to change posrt, just open file application.properties, find key [server.port], change port and rebuild again.