

LAB 12: SECURE CODING INPUT VALIDATION BY java

Class: M02

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A in java

1 *Execut following first secure coding, exercise as far as you can*

1 Process designing

2 Coding

3 Executing

OS	
IDE	Terminal
language	Java 11
Type of DB	
Type of File	
Other software	

2

3 [Process designing]

1 Configure the Complete Build Process

1 How to install/set up IDE for java, How to install/call java under IDE

```
khoab2014926@khoab2014926-VirtualBox:~$ java -version
openjdk version "1.8.0_382"
OpenJDK Runtime Environment (build 1.8.0_382-8u382-ga-1~22.04.1-b05)
OpenJDK 64-Bit Server VM (build 25.382-b05, mixed mode)
khoab2014926@khoab2014926-VirtualBox:~$
```

2 Search coding model *java* program,

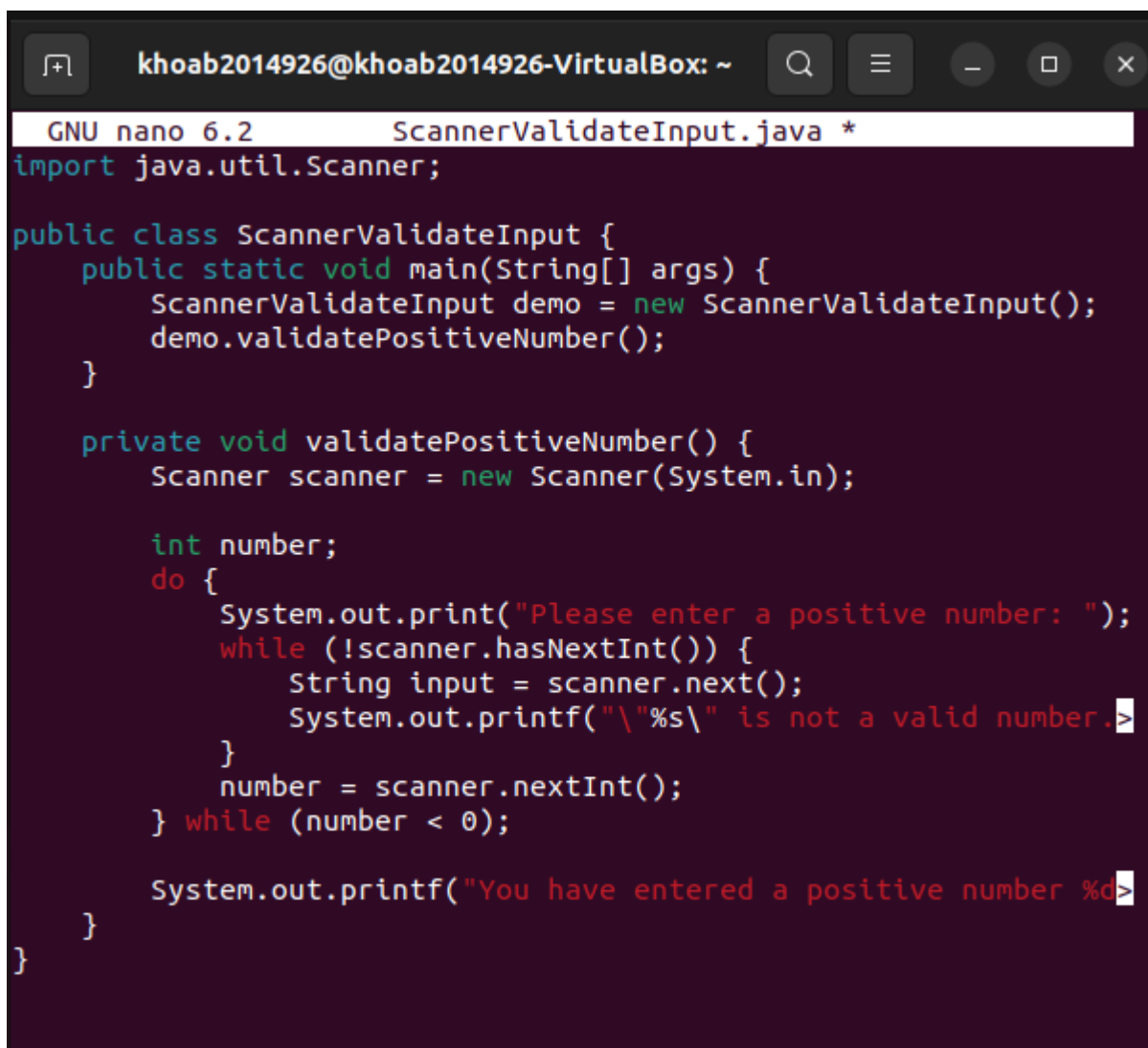
<https://kodejava.org/how-do-i-validate-input-when-using-scanner/>

3 How to compile java program

<https://www.tutorialspoint.com/How-to-compile-a-java-program>

- 4 How to connect & interface input validation java module to main program
- 5 Explain the input validation program logic
 - Get the input from user
 - Check the input is integer or not
 - If not continue check the input is float or not
 - If not integer or float. The input is string
- 6 How to run the program

[Coding]



```
GNU nano 6.2 ScannerValidateInput.java *
import java.util.Scanner;

public class ScannerValidateInput {
    public static void main(String[] args) {
        ScannerValidateInput demo = new ScannerValidateInput();
        demo.validatePositiveNumber();
    }

    private void validatePositiveNumber() {
        Scanner scanner = new Scanner(System.in);

        int number;
        do {
            System.out.print("Please enter a positive number: ");
            while (!scanner.hasNextInt()) {
                String input = scanner.next();
                System.out.printf("\'%s\' is not a valid number.>
            }
            number = scanner.nextInt();
        } while (number < 0);

        System.out.printf("You have entered a positive number %d>
    }
}
```

[Executing]

- Compile Main.java to ScannerValidateInput file to execute
- Run after compiling successfully and check the result

```
khoab2014926@khoab2014926-VirtualBox:~$ java ScannerValidateInput.java
Please enter a positive number: Tran Dang Khoa
"Tran" is not a valid number.
"Dang" is not a valid number.
"Khoa" is not a valid number.
-100
Please enter a positive number: 99
You have entered a positive number 99.
khoab2014926@khoab2014926-VirtualBox:~$
```