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## *Error checklist*

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### **(I/O Errors Handling) by keyboard.**

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#### **CODE**

##### **WITHOUT ERRORCHECK LIST**

```
import java.util.Scanner;

public class IOErrorHandler {
    public static void handleInput() {
        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter an integer: ");
        long number = scanner.nextLong();

        int intValue = (int) number;
        System.out.println("You entered Integer: " + intValue);
    }

    public static void main(String[] args) {
        handleInput();
    }
}
```

```

1- import java.util.Scanner;
2
3- public class IOErrorHandling {
4-     public static void handleInput() {
5-         Scanner scanner = new Scanner(System.in);
6
7-         System.out.print("Enter an integer: ");
8-         long number = scanner.nextLong();
9
10-         int intValue = (int) number;
11-         System.out.println("You entered Integer: " + intValue);
12
13-     }
14
15- public static void main(String[] args) {
16-     handleInput();
17- }
18 }
19

```

```

java -cp /tmp/QELrXN0AeC/IOErrorHandling
Enter an integer: hsshs
ERROR!
Exception in thread "main" java.util.InputMismatchException
    at java.base/java.util.Scanner.throwFor(Scanner.java:939)
    at java.base/java.util.Scanner.next(Scanner.java:1594)
    at java.base/java.util.Scanner.nextLong(Scanner.java:2373)
    at java.base/java.util.Scanner.nextLong(Scanner.java:2328)
    at IOErrorHandling.handleInput(IOErrorHandling.java:8)
    at IOErrorHandling.main(IOErrorHandling.java:16)

=== Code Exited With Errors ===

```

```

import java.util.Scanner;

public class IOErrorHandling {
    public static void handleInput() {
        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter an integer: ");
        long number = scanner.nextLong();

        int intValue = (int) number;
        System.out.println("You entered Integer: " + intValue);
    }

    public static void main(String[] args) {
        handleInput();
    }
}

```

```

java -cp /tmp/DwXNlgJLoE/IOErrorHandling
Enter an integer: 45.55
ERROR!
Exception in thread "main" java.util.InputMismatchException
    at java.base/java.util.Scanner.throwFor(Scanner.java:939)
    at java.base/java.util.Scanner.next(Scanner.java:1594)
    at java.base/java.util.Scanner.nextLong(Scanner.java:2373)
    at java.base/java.util.Scanner.nextLong(Scanner.java:2328)
    at IOErrorHandling.handleInput(IOErrorHandling.java:8)
    at IOErrorHandling.main(IOErrorHandling.java:16)

=== Code Exited With Errors ===

```

Main.java

Run

Output

```

1- import java.util.Scanner;
2
3- public class IOErrorHandling {
4-     public static void handleInput() {
5-         Scanner scanner = new Scanner(System.in);
6
7-         System.out.print("Enter an integer: ");
8-         long number = scanner.nextLong();
9
10-         int intValue = (int) number;
11-         System.out.println("You entered Integer: " + intValue);
12
13-     }
14
15- public static void main(String[] args) {
16-     handleInput();
17- }
18 }
19

```

```

java -cp /tmp/KQJZKRLJlE/IOErrorHandling
Enter an integer: 46546565465456456
You entered Integer: -871022776

=== Code Execution Successful ===

```

## WITH ERRORCHECKLIST

```
import java.util.InputMismatchException;
```

```
import java.util.Scanner;
```

```

public class IOErrorHandling {
    public static void handleInput() {

```

```

Scanner scanner = new Scanner(System.in);

try {
    System.out.print("Enter an integer: ");
    long number = scanner.nextLong();

    if (number > Integer.MAX_VALUE) {
        System.out.println("Error: Input value exceeds Integer.MAX_VALUE==2147483647.");
    } else {
        int intValue = (int) number;
        System.out.println("You entered Integer: " + intValue);
    }
} catch (InputMismatchException e) {
    System.out.println("Error: Input is not a valid integer.");
}

}

public static void main(String[] args) {
    handleInput();
}
}

```

```

java -cp /tmp/Y4TqUckXC0/IOErrorHandling
Enter an integer: hdshf
ERROR!
Error: Input is not a valid integer.

```

```

java -cp /tmp/HwJRZIpwEH/IOErrorHandling
Enter an integer: 88885451465
ERROR!
Error: Input value exceeds Integer.MAX_VALUE==2147483647.

```

```

java -cp /tmp/pm4NmdXYkr/IOErrorHandling
Enter an integer: 45.5ERROR!

Error: Input is not a valid integer.

```

## TESTCASES

TestCase_ID	Description	Input data	Expected outcome	Actual outcome	status
T_01	Valid integer input	42	Integer printed	Values are printed	Pass
T_02	Character or string input	hamza	Error Message: Input is not a valid integer	Error: Input is not a valid integer	Pass
T_03	Floating point input	78.5	Error Message: Input is not a valid integer	Error: Input is not a valid integer	Pass
T_04	Special character input	\$	Error Message: Input is not a valid integer	Error: Input is not a valid integer	Pass
T_05	larger integer input value greater than the max integer value	78974564897	Error Message: Input value exceeds Integer	Error: Input is not a valid integer	Pass