PROGRAMMING IN JAVA LAB-8

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BATCH-AIML A1
Part 1 : Write a Java Program to find the factorial of 'n' integers (as command line arguments CLA). Write your own exception "MyExcep" to validate integer values to be in certain range.
Part 2:
Define an exception class called "NOMATCHEXCP" that is thrown when the string from keyboard is not equal to "India". Write a Demo program using try-catch block that shows the use of this user-defined exception. class NOMATCHEXCP should have a parameterized constructor and the exception message generated should show the line number and the erroneous String that was inputted by the user.
//

PART-1:

```java
class MyExcep extends Exception { public MyExcep(String message) {

        super(message);
    }


}

public class Factorial {
public static void main(String[] args) {

int n;
for(int i=0;i<args.length;i++){

            try {
                int fact = 1;

n = Integer.parseInt(args[i]);
if (n < 0 || n > 15) {
throw new MyExcep("Invalid input! Integer must be between 0 and 15."); }

for (int j = 1; j <= n; j++) { fact *= j;
}
System.out.println("Factorial of " + n + " is: " + fact);

} catch (MyExcep e) { System.out.println(e.getMessage());

} catch (NumberFormatException e) { System.out.println("Invalid input!
Please enter an integer


value.");
}


} }
```

```
}
```

OUTPUT:

```
Factorial of 8 is: 40320
Invalid input! Integer must be between 0 and 15.
Invalid input! Please enter an integer value.
Factorial of 5 is: 120
Invalid input! Integer must be between 0 and 15.
```

PART-2:

```java
import java.util.Scanner;

class NOMATCHEXCP extends Exception {
public NOMATCHEXCP(int line, String input) {

super("Error: Line " + line + ": \"" + input + "\" is not equal to
\"India\"");

}
}

public class Demo {
public static void main(String[] args) {

Scanner scanner = new Scanner(System.in); String input;
int line = 0;

try {
System.out.print("Enter a string: "); input = scanner.nextLine();
line++;

if (!input.equals("India")) {
throw new NOMATCHEXCP(line, input);
}

System.out.println("Input string is equal to \"India\""); } catch
(NOMATCHEXCP e) {

System.err.println(e.getMessage()); }

} }
```

OUTPUT:

```
/Library/Java/JavaVirtualMachines/amazon-corretto-11.jdk/Co
Enter a string: Hello
Error: Line 1: "Hello" is not equal to "India"


Process finished with exit code 0
```

on Control   ▶ Run   ≣ TODO   ❶ Problems   ▶ Terminal   ❍ Services   ⌃ Bu

npleted successfully in 2 sec, 876 ms (moments ago)

```
/Library/Java/JavaVirtualMachines/amazon-corret
Enter a string: India
Input string is equal to "India"


Process finished with exit code 0
```