Experiment No. 08
Experiment Name: Exception Handling

Course title: Programming Language II(Java) Lab
Course code:
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Submitted to-

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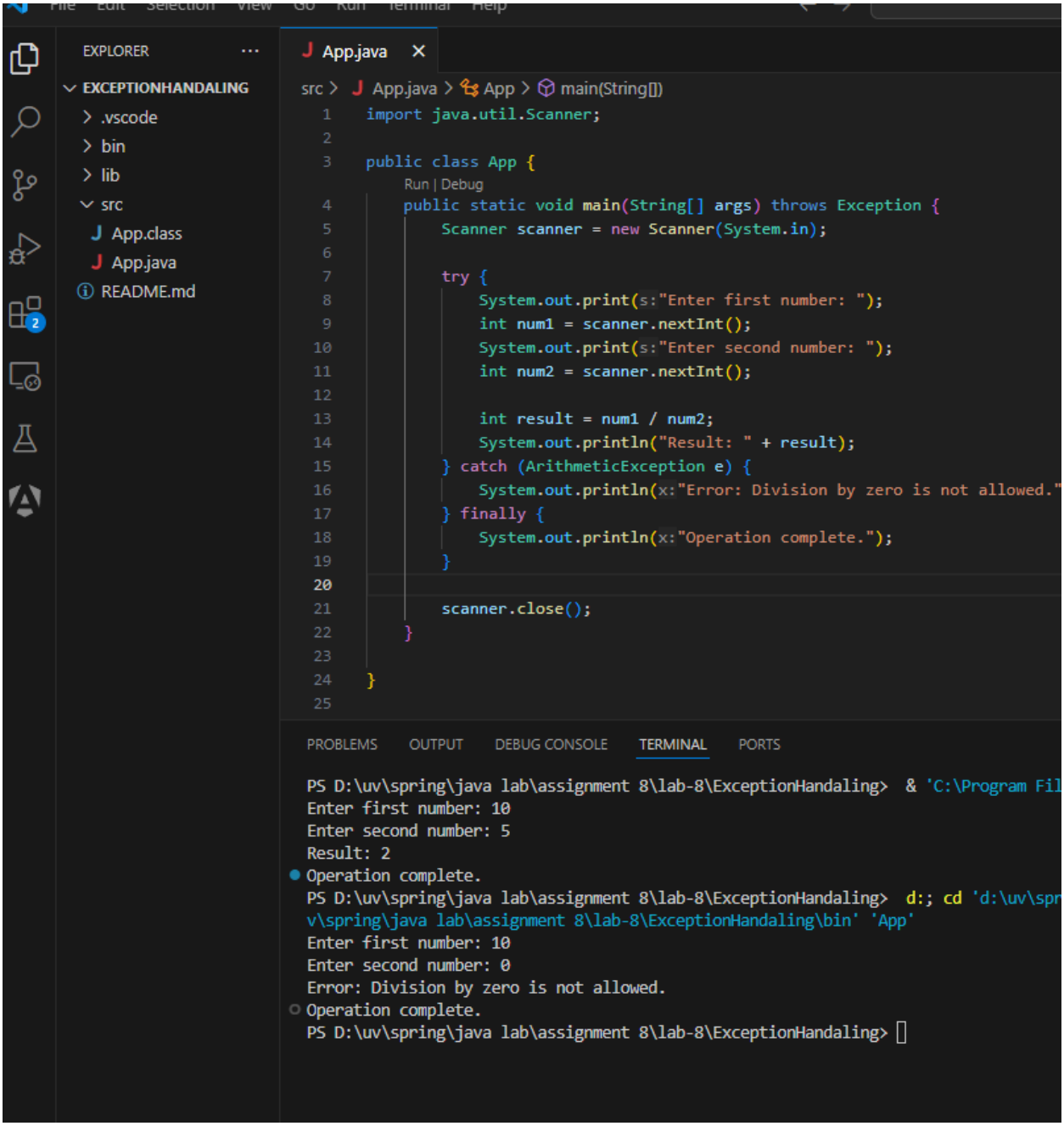
1. Division with Exception Handling:

Here's how you can write a program to handle an `ArithmeticException` when dividing two integers:



2. Handling Array and NullPointer Exceptions:

This program demonstrates handling multiple exceptions, such as `ArrayIndexOutOfBoundsException` and `NullPointerException`.

```
EXCEPTIONHANDALING
> .vscode
> bin
> lib
v src
  J App.class
  J App.java 1
  i README.md

src > J App.java > App > main(String[])
1  import java.util.Scanner;
2
3  public class App {
       Run | Debug
4      public static void main(String[] args) throws Exception {
5          int[] array = { 10, 20, 30, 40, 50 };
6          String str = null;
7          Scanner scanner = new Scanner(System.in);
8          try {
9              System.out.print(s:"Enter array index: ");
10             int index = scanner.nextInt();
11             System.out.println("Value at index: " + array[index]);
12
13             // Simulating a NullPointerException
14             System.out.println("String length: " + str.length());
15         } catch (ArrayIndexOutOfBoundsException e) {
16             System.out.println(x:"Error: Index is out of bounds!");
17         } catch (NullPointerException e) {
18             System.out.println(x:"Error: Attempted to access a null object!");
19         } finally {
20             System.out.println(x:"Operation complete.");
21         }
22         scanner.close();
23     }
24
25 }
26
27 // Scanner scanner = new Scanner(System.in);

PROBLEMS 1   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

v\spring\java lab\assignment 8\lab-8\ExceptionHandaling\bin' 'App'
Enter array index: 1
Value at index: 20
Error: Attempted to access a null object!
Operation complete.
PS D:\uv\spring\java lab\assignment 8\lab-8\ExceptionHandaling>  d:; cd 'd:\uv\spring\j
& 'C:\Program Files\Java\jdk-23.0.1\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessa
ab-8\ExceptionHandaling\bin' 'App'
Enter array index: 2
Value at index: 30
Error: Attempted to access a null object!
Operation complete.
PS D:\uv\spring\java lab\assignment 8\lab-8\ExceptionHandaling>  d:; cd 'd:\uv\spring\j
& 'C:\Program Files\Java\jdk-23.0.1\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessa
ab-8\ExceptionHandaling\bin' 'App'
Enter array index: 5
Error: Index is out of bounds!
Operation complete.
PS D:\uv\spring\java lab\assignment 8\lab-8\ExceptionHandaling>

> OUTLINE
> TIMELINE
> JAVA PROJECTS
```

3. Custom Exceptions for Stack Overflow and Underflow:

Here's how you can define custom exceptions and use them in a stack implementation: