EXPLORER

OPEN EDITORS
- example.java problem - 1
- example.java problem - 2
- example.class problem - 1

EXCEPTION HANDLING
- problem - 1
  - example.class
  - example.java
- problem - 2

example.java problem - 1 ×   example.java problem - 2   example.class

problem - 1 > example.java > example

```java
import java.util.*;

class example {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        String str = sc.nextLine();
        try {
            fun(str);
            System.out.printf(format:"String contains vowel");
        } catch (Exception e) {
            System.out.printf(format:"Error : String does not contain vowel");
        }


        sc.close();
    }

    public static void fun(String str) throws Exception {
        boolean flag = false;
        for (int i = 0; i < str.length(); i++) {
            if (str.charAt(i) == 'a' || str.charAt(i) == 'e' || str.charAt(i) == 'i' || str.charAt(i) == 'o'
                    || str.charAt(i) == 'u') {
                flag = true;
                break;
            }

        }
        if (!flag) {
            throw new Exception();
        }
    }
}
```

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    COMMENTS

PS C:\Users\Admin\Desktop\Exception Handling> cd "c:\Users\Admin\Desktop\Exception Handling\problem - 1\" ; if ($?) { javac example.java } ; if ($?) {
java example }
My Rhythms fly
Error : String does not contain vowel
PS C:\Users\Admin\Desktop\Exception Handling\problem - 1> cd "c:\Users\Admin\Desktop\Exception Handling\problem - 1\" ; if ($?) { javac example.java }
; if ($?) { java example }
who would know naught of art must learn, act, and then take this ease
String contains vowel
; if ($?) { java example }
```
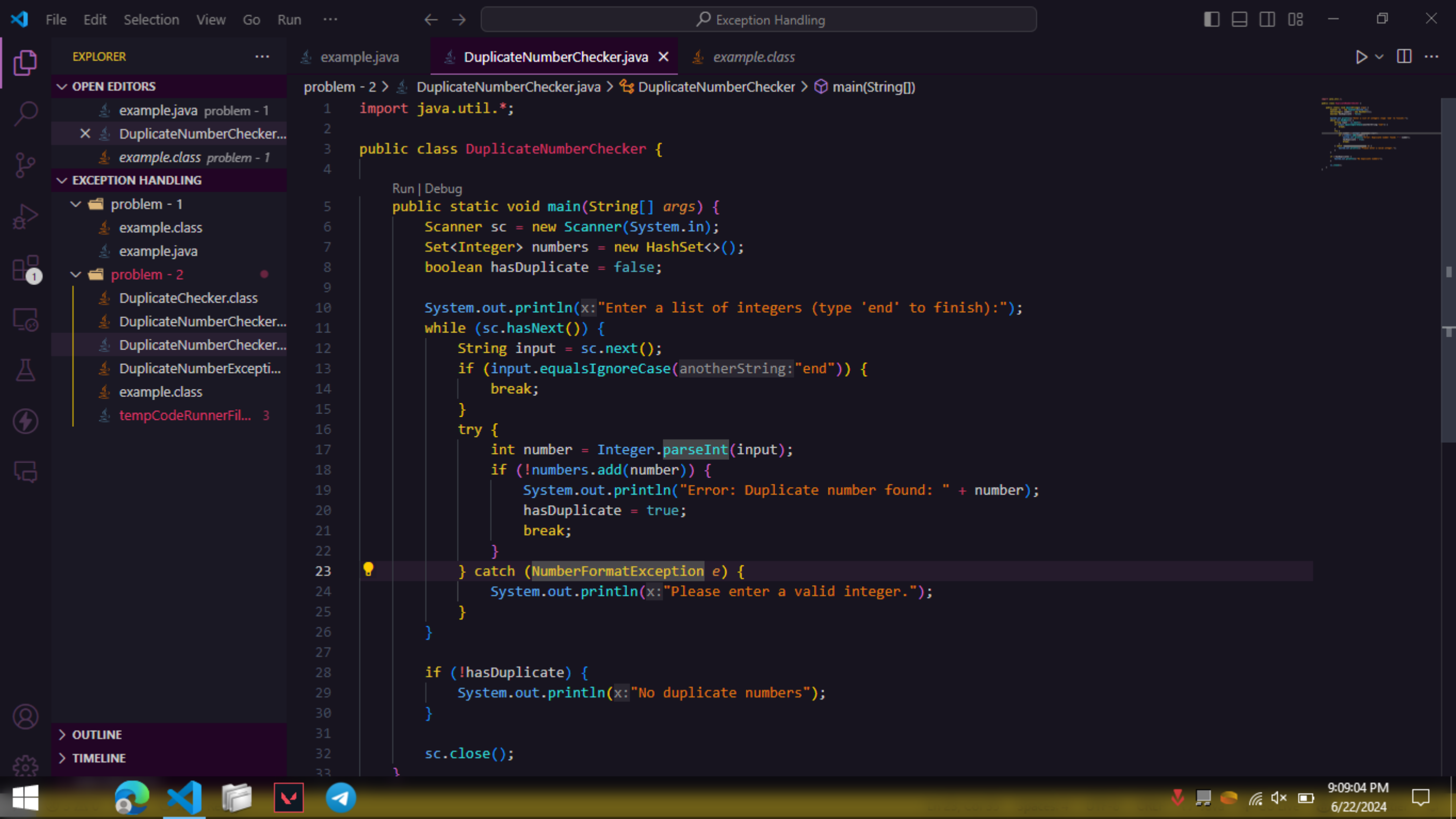
```java
import java.util.*;

public class DuplicateNumberChecker {

    Run | Debug
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        Set<Integer> numbers = new HashSet<>();
        boolean hasDuplicate = false;

        System.out.println(x:"Enter a list of integers (type 'end' to finish):");
        while (sc.hasNext()) {
            String input = sc.next();
            if (input.equalsIgnoreCase(anotherString:"end")) {
                break;
            }
            try {
                int number = Integer.parseInt(input);
                if (!numbers.add(number)) {
                    System.out.println("Error: Duplicate number found: " + number);
                    hasDuplicate = true;
                    break;
                }
            } catch (NumberFormatException e) {
                System.out.println(x:"Please enter a valid integer.");
            }
        }

        if (!hasDuplicate) {
            System.out.println(x:"No duplicate numbers");
        }

        sc.close();
    }
}
```

```
PS C:\Users\Admin\Desktop\Exception Handling\problem - 2> cd "c:\Users\Admin\Desktop\Exception
Handling\problem - 2\" ; if ($?) { javac DuplicateNumberChecker.java } ; if ($?) { java Duplica
teNumberChecker }
Enter a list of integers (type 'end' to finish):
1
2
3
4
5
end
No duplicate numbers
PS C:\Users\Admin\Desktop\Exception Handling\problem - 2> cd "c:\Users\Admin\Desktop\Exception
Handling\problem - 2\" ; if ($?) { javac DuplicateNumberChecker.java } ; if ($?) { java Duplica
teNumberChecker }
Enter a list of integers (type 'end' to finish):
1
2
2
Error: Duplicate number found: 2
```
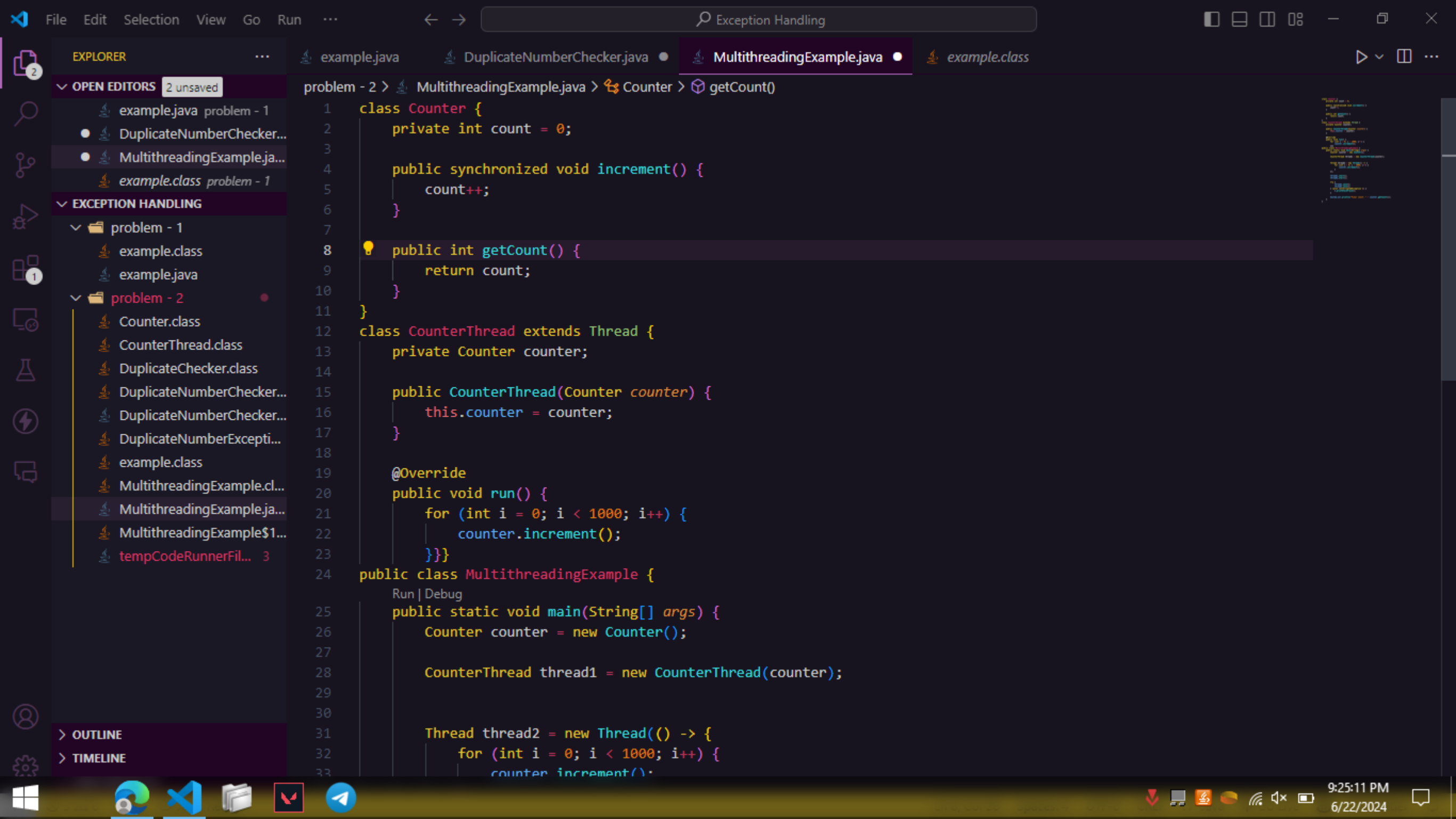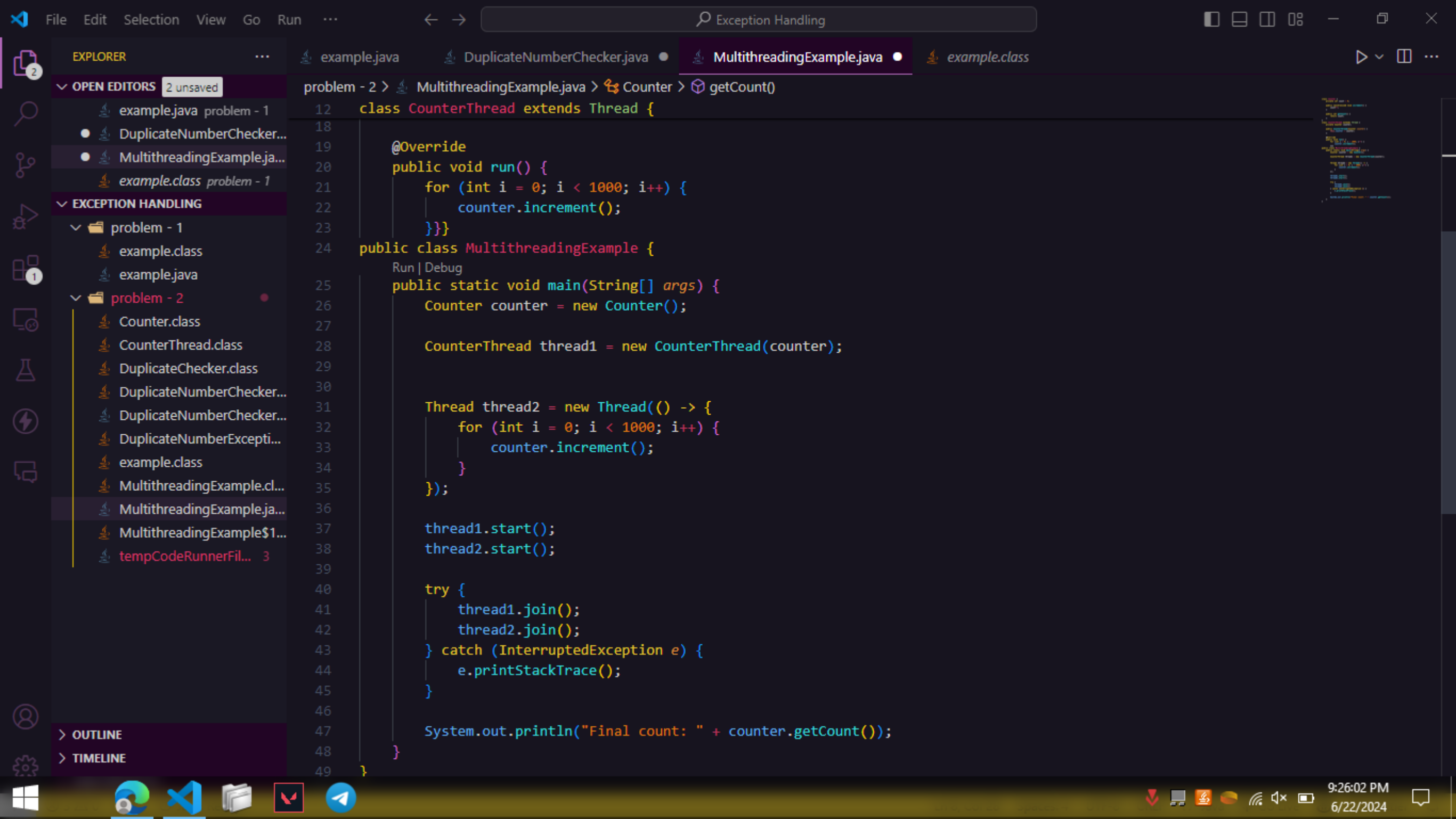
EXPLORER

Tabs: example.java | DuplicateNumberChecker.java ● | MultithreadingExample.java ● | example.class

problem - 2 > MultithreadingExample.java > Counter > getCount()

```java
class Counter {
    private int count = 0;

    public synchronized void increment() {
        count++;
    }

    public int getCount() {
        return count;
    }
}
class CounterThread extends Thread {
    private Counter counter;

    public CounterThread(Counter counter) {
        this.counter = counter;
    }

    @Override
    public void run() {
        for (int i = 0; i < 1000; i++) {
            counter.increment();
        }}}
public class MultithreadingExample {
    public static void main(String[] args) {
        Counter counter = new Counter();

        CounterThread thread1 = new CounterThread(counter);

        Thread thread2 = new Thread(() -> {
            for (int i = 0; i < 1000; i++) {
                counter.increment();
```

example.java   DuplicateNumberChecker.java   MultithreadingExample.java   example.class

problem - 2 > MultithreadingExample.java > Counter > getCount()

```java
class CounterThread extends Thread {

    @Override
    public void run() {
        for (int i = 0; i < 1000; i++) {
            counter.increment();
        }}}
public class MultithreadingExample {
    Run | Debug
    public static void main(String[] args) {
        Counter counter = new Counter();

        CounterThread thread1 = new CounterThread(counter);


        Thread thread2 = new Thread(() -> {
            for (int i = 0; i < 1000; i++) {
                counter.increment();
            }
        });

        thread1.start();
        thread2.start();

        try {
            thread1.join();
            thread2.join();
        } catch (InterruptedException e) {
            e.printStackTrace();
        }

        System.out.println("Final count: " + counter.getCount());
    }
}
```

```
PS C:\Users\Admin\Desktop\Exception Handling> cd "c:\Users\Admin\Desktop\Exception Handling\problem - 2\" ;
} ; if ($?) { java MultithreadingExample }
Final count: 2000
PS C:\Users\Admin\Desktop\Exception Handling\problem - 2>
```