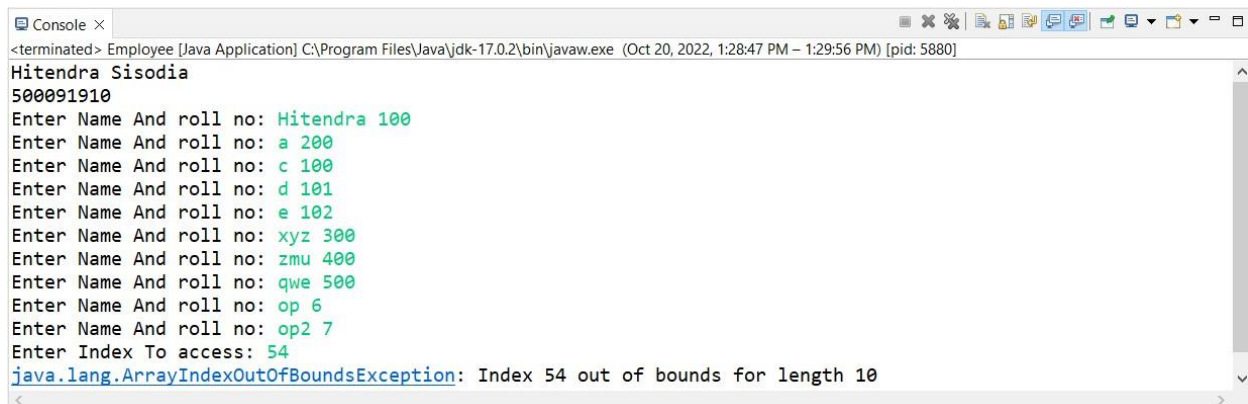Name: Hitendra Sisodia
Sap id: 500091910

Lab 8

Ques1: Write a program in Java to display the names and roll numbers of students. Initialize respective array variables for 10 students. Handle ArrayIndexOutOfBoundsExeption, so that any such problem doesn't cause illegal termination of program.

Source Code

```java
package Lab8;
import java.util.Scanner;

public class ArrayIndexOutOfBounds {
    public static void main(String[] args) {
        System.out.println("Hitendra Sisodia");
        System.out.println("500091910");
        Scanner sc = new Scanner(System.in);
        String name[] = new String[10];
        int roll[] = new int[10];
        for(int i = 0 ; i < 10 ; i ++) {
            System.out.print("Enter Name And roll no: ");
            name[i] = sc.next();
            roll[i] = sc.nextInt();
        }
        try {
            System.out.print("Enter Index To access: ");
            int i = sc.nextInt();
            System.out.print("Name: "+name[i]);
            System.out.print("Roll No: "+roll[i]);
        }
        catch(ArrayIndexOutOfBoundsException e) {
            System.out.println(e);
        }
    }
}
```

Output

```
Console ×
<terminated> Employee [Java Application] C:\Program Files\Java\jdk-17.0.2\bin\javaw.exe  (Oct 20, 2022, 1:28:47 PM – 1:29:56 PM) [pid: 5880]
Hitendra Sisodia
500091910
Enter Name And roll no: Hitendra 100
Enter Name And roll no: a 200
Enter Name And roll no: c 100
Enter Name And roll no: d 101
Enter Name And roll no: e 102
Enter Name And roll no: xyz 300
Enter Name And roll no: zmu 400
Enter Name And roll no: qwe 500
Enter Name And roll no: op 6
Enter Name And roll no: op2 7
Enter Index To access: 54
java.lang.ArrayIndexOutOfBoundsException: Index 54 out of bounds for length 10
```
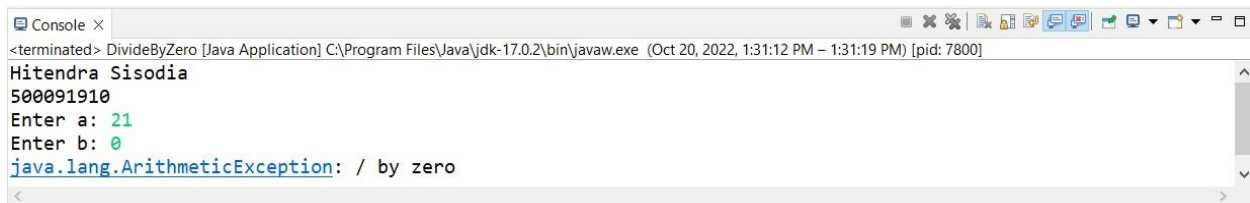
Lab 8

Ques2: Write a Java program to enable the user to handle any chance of divide by zero exception.

Source Code

```java
package Lab8;
import java.util.Scanner;

public class DivideByZero {
    public static void main(String args[]) {
        System.out.println("Hitendra Sisodia");
        System.out.println("500091910");
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a: ");
        int a = sc.nextInt();
        System.out.print("Enter b: ");
        int b = sc.nextInt();
        try {
            int c = a/b;
            System.out.print(c);
        }
        catch(ArithmeticException e) {
            System.out.println(e);
        }
    }
}
```

Output

```
Hitendra Sisodia
500091910
Enter a: 21
Enter b: 0
java.lang.ArithmeticException: / by zero
```

Lab 8

Ques3: Write a java program to throw an exception for employee details. If an employee name is a number, a name exception must be thrown. If an employee age is greater than 50, an age exception must be thrown.

Source Code

```java
package Lab8;
import java.util.Scanner;

class NameException extends Exception{
    NameException(String s) {
        super();
    }
}
class AgeException extends Exception{
    AgeException(String s) {
        super();
    }
}
public class Employee {
    public static void main(String args[]) {
        System.out.println("Hitendra Sisodia");
        System.out.println("500091910");
        Scanner sc = new Scanner(System.in);
        String name;
        int age;
        System.out.println("Enter employee name and age");
        try {
            name = sc.nextLine();
            if(!name.matches("[a-zA-Z]+")) {
                throw new NameException("Name Incorrect");
            }
            age = sc.nextInt();
            if(age > 50) {
                throw new AgeException("Age Exception");
            }
        }
        catch(NameException ex) {
            System.out.println(ex);
        }
        catch(AgeException e) {
            System.out.println(e);
        }
    }
}
```

Lab 8

Output

Console ×

\<terminated\> Employee (1) [Java Application] C:\Program Files\Java\jdk-17.0.2\bin\javaw.exe (Oct 20, 2022, 1:36:18 PM – 1:36:24 PM) [pid: 5964]

```
Hitendra Sisodia
500091910
Enter employee name and age
Suresh
60
Lab8.AgeException
```