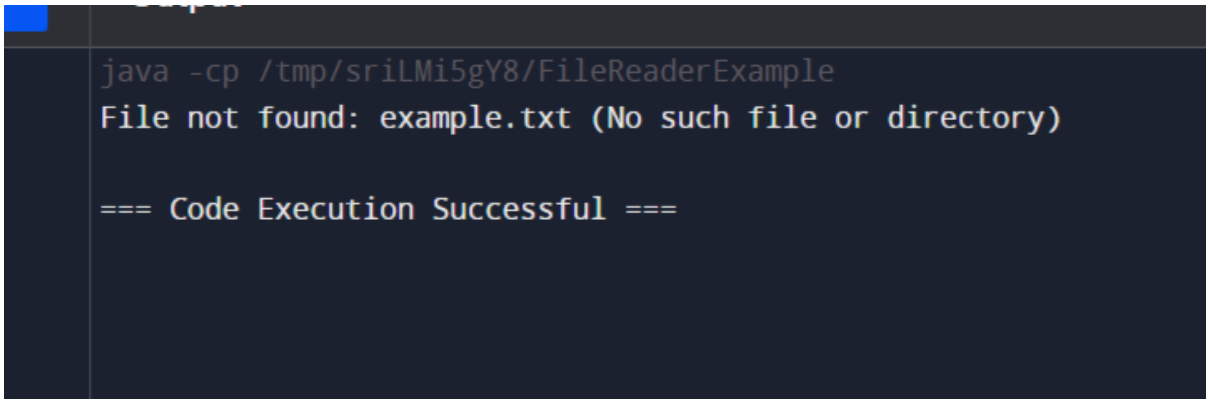
ASSIGNMENT-6

1. Write a Java program to create a method that reads a file and throws an exception if the file is not found

```
import java.io.File;
import java.io.FileNotFoundException;
import java.util.Scanner;


public class FileReaderExample {
   public static void main(String[] args) {
      try {
         readFile("example.txt");
      } catch (FileNotFoundException e) {
         System.out.println("File not found: " + e.getMessage());
      }
   }


   public static void readFile(String fileName) throws
FileNotFoundException {
      File file = new File(fileName);
      Scanner scanner = new Scanner(file);
      while (scanner.hasNextLine()) {
         System.out.println(scanner.nextLine());
      }
      scanner.close();
```

```
    }
}
```

OUTPUT:



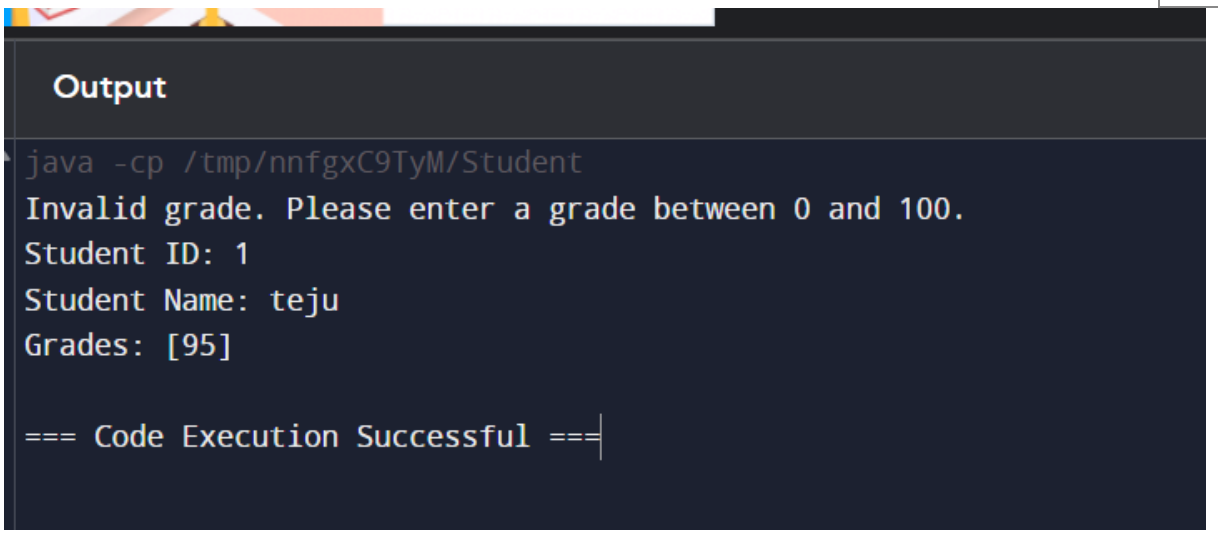
2. . Write a Java program to create a class called Student with private instance variables student_id, student_name, and grades. Provide public getter and setter methods to access and modify the student_id and student_name variables. However, provide a method called addGrade() that allows adding a grade to the grades variable while performing additional validation.

```
import java.util.ArrayList;

public class Student {
    private int studentId;
    private String studentName;
    private ArrayList<Integer> grades;

    public Student(int studentId, String studentName) {
```

```
    this.studentId = studentId;
    this.studentName = studentName;
    this.grades = new ArrayList<>();
}

public int getStudentId() {
    return studentId;
}

public void setStudentId(int studentId) {
    this.studentId = studentId;
}

public String getStudentName() {
    return studentName;
}

public void setStudentName(String studentName) {
    this.studentName = studentName;
}

public void addGrade(int grade) {
    if (grade >= 0 && grade <= 100) {
        grades.add(grade);
    } else {
```

```
            System.out.println("Invalid grade. Please enter a grade
between 0 and 100.");
        }
    }

    public ArrayList<Integer> getGrades() {
        return grades;
    }

    public static void main(String[] args) {
        Student student = new Student(1, "teju");
        student.addGrade(95);
        student.addGrade(105);  // Invalid grade example
        System.out.println("Student ID: " +
student.getStudentId());
        System.out.println("Student Name: " +
student.getStudentName());
        System.out.println("Grades: " + student.getGrades());
    }
}
```

OUTPUT:


Output
java -cp /tmp/nnfgxC9TyM/Student
Invalid grade. Please enter a grade between 0 and 100.
Student ID: 1
Student Name: teju
Grades: [95]
=== Code Execution Successful ===