**Create a program where students’ grades are stored and retrieved from a file. Handle exceptions such as: • FileNotFoundException if the grade file doesn’t exist. • IOException for issues during file reading/writing. • IllegalArgumentException for invalid grade inputs**

import java.io.\*;

import java.util.Scanner; public class GradesManager {

public static void writeGradesToFile(String fileName, String[] grades) throws IOException {

try (BufferedWriter writer = new BufferedWriter(new FileWriter(fileName))) {

for (String grade : grades) {

writer.write(grade);

writer.newLine();

}

}

}

public static void readGradesFromFile(String fileName) throws IOException {

try (BufferedReader reader = new BufferedReader(new FileReader(fileName))) {

String line;

while ((line = reader.readLine()) != null) {

System.out.println(line);

} } }

public static void validateGrade(String grade) {

if (!grade.matches("[A-F]")) {

throw new IllegalArgumentException("Invalid grade input: " + grade);

}

}

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the filename to store grades: ");

String fileName = scanner.nextLine();

System.out.print("Enter the number of grades to store: ");

int numGrades = scanner.nextInt();

scanner.nextLine();

String[] grades = new String[numGrades];

for (int i = 0; i < numGrades; i++) {

System.out.print("Enter grade " + (i + 1) + ": ");

grades[i] = scanner.nextLine();

try {

validateGrade(grades[i]);

}

catch (IllegalArgumentException e) { System.out.println(e.getMessage()); i--; } }

try {

writeGradesToFile(fileName, grades);

System.out.println("Grades have been written to the file successfully.");

}

catch (FileNotFoundException e) {

System.out.println("File not found: " + e.getMessage());

}

catch (IOException e) {

System.out.println("IOException occurred: " + e.getMessage());

}

System.out.println("\nReading grades from the file:");

try {

readGradesFromFile(fileName);

}

catch (FileNotFoundException e) {

System.out.println("File not found: " + e.getMessage());

}

catch (IOException e) {

System.out.println("IOException occurred: " + e.getMessage());

}

}

}