Lab Assignment 1

Problem statement: Design a java application to demonstrate file handling in Java. Read raw data from input file, rite summary in output files.

Name: Chaitanya S. Joshi

Roll No: 26

Gr No:119C0025

Class: Second Year

Branch: MCA

Batch: B1

Date of Performance: 26/02/2021

Solution:

package studentfilereport;

import java.io.\*;

import java.util.\*;

class Student

{

int mks[] = new int[5];

String studname;

Student(String name, int marks[])

{

this.studname = name;

for(int i=0; i<marks.length;i++)

{

this.mks[i] = marks[i];

}

}

String getStudentName()

{

return this.studname;

}

float getAvg()

{

int total = 0;

float percentage = 0;

for(int i=0;i<5;i++)

{

total = total + mks[i];

}

percentage = total/5;

return percentage;

}

String getGrade(float per)

{

if(per < 100 && per >= 90)

return "Excellent : A+";

else if(per < 90 && per >= 80)

return "Very Good : A";

else if(per < 80 && per >= 70)

return "Good : B+";

else if(per < 70 && per >= 55)

return "Average : B";

else if(per < 55 && per >= 35)

return "Need to be Improved : C";

else if(per < 35)

return "Fail";

return "NULL";

}

}

public class StudentFileReport

{

ArrayList<Student> ListOfStudents = new ArrayList<Student>();

void read()

{

String ln = "";

try

{

BufferedReader br = new BufferedReader ( new FileReader("D:\\MCA SEM-4\\java\\ResultAnalysisAssignment1\\src\\studentfilereport\\Student\_Record.csv"));

while((ln = br.readLine())!= null)

{

int marks[] = new int[5];

String data[] = ln.split(",");

for(int i=0;i<5;i++)

{

marks[i] = Integer.parseInt(data[i+1]);

}

ListOfStudents.add(new Student(data[0],marks));

}

}

catch(Exception e)

{

System.out.println(e);

}

}

void report()

{

try

{

FileWriter fw1 = new FileWriter("D:\\MCA SEM-4\\java\\ResultAnalysisAssignment1\\src\\studentfilereport\\avgreport.csv");

FileWriter fw2 = new FileWriter("D:\\MCA SEM-4\\java\\ResultAnalysisAssignment1\\src\\studentfilereport\\gradereport.csv");

fw1.write("Generated Percentage Report"+"\n");

fw1.write("Student"+" :"+"Percentage"+"\n");

fw2.write("Generated Grade Report"+"\n");

fw2.write("Student"+" :"+"Grade"+"\n");

for(Student s : ListOfStudents)

{

fw1.write(s.getStudentName()+" :"+s.getAvg()+"\n");

fw2.write(s.getStudentName()+" :"+s.getGrade(s.getAvg())+"\n");

}

fw1.close();

fw2.close();

System.out.println("Report Generated Successfully!");

}

catch(Exception e)

{

System.out.println(e);

}

}

public static void main(String args[])

{

StudentFileReport ob = new StudentFileReport();

ob.read();

ob.report();

}

}

Output:





