Develop a programme that uses Multiple Inheritance concepts to compute a student's grades in six subjects. The total and aggregate are then calculated, and the student's grade is displayed. If the student achieves an aggregate of more than 75%, the grade is Distinction. If the aggregate is between 60 and 75, the grade is First Division. If the aggregate is between 50 and 60, the grade is Second Division. If the aggregate is between 40 and 50, the grade is Third Division. Otherwise, the grade is FAIL.

Sample Input & Output:

Enter the marks in python: 90

Enter the marks in c programming: 91

Enter the marks in Mathematics: 92

Enter the marks in Physics: 93

Enter the marks in Chemistry: 92

Enter the marks in Professional Ethics: 93

Total= 551

Aggregate = 91.83

Class: DISTINCTION

CODE:

import java.util.\*;

public class Studgrade{

public static void main(String[] args) {

try {

float m1, m2, m3, m4, m5, m6;

Scanner sc = new Scanner(System.in);

System.out.println("enter marks in python:");

m1 = sc.nextInt();

System.out.println("enter marks in c programming:");

m2 = sc.nextInt();

System.out.println("enter marks in mathematics:");

m3 = sc.nextInt();

System.out.println("enter marks in physics:");

m5 = sc.nextInt();

System.out.println("enter marks in chemistry:");

m6 = sc.nextInt();

System.out.println("enter marks in professional ethics:");

m4 = sc.nextInt();

if (m1 >100 || m2 > 100 || m3 > 100 || m4 > 100 || m5 > 100 || m6 > 100)

{

throw new NullPointerException("invalid due to higher values.");

}

if (m1 <0 || m2 <0 || m3 <0 || m4 <0 || m5 < 0 || m6 < 0)

{

throw new ArithmeticException("invalid due to higher values.");

}

float total=m1+m2+m3+m4+m5+m6;

float agg=total/6;

System.out.println("TOTAL= " + total);

System.out.println("Aggregate=" + agg);

if(agg>75)

{

System.out.println("DISTINCTION");

}

else if(agg>=60 &&agg<75)

{

System.out.println("FIRST DIVISION");

}

else if(agg>=50 &&agg<60)

{

System.out.println("SECOND DIVISION");

}

else if(agg>=40 &&agg<50)

{

System.out.println("THIRD DIVISION");

}

else

{

System.out.println("FAIL");

}

}

catch(NullPointerException e)

{

System.out.println("invalid due to higher values.");

}

catch(ArithmeticException e)

{

System.out.println("invalid due to negative values.");

}

catch(Exception e)

{

System.out.println("invalid due to floating values.");

}

}

}

OUTPUT:

C:\javap>javac Studgrade.java

C:\javap>java Studgrade

enter marks in python:

98

enter marks in c programming:

106

enter marks in mathematics:

120

enter marks in physics:

95

enter marks in chemistry:

98

enter marks in professional ethics:

34

invalid due to higher values.

