**PROGRAMS :** **Write a program to implement two classes student and marks in external namespace stored in a header file grade\_report. Assume necessary data members and include setter and getter functions and functions to compute the grade and percentage.(use an array of object to display grade report of each student)**

**//21co24 ETHAN MENEZES**

**//grade\_report.h**

**#include<string>**

**using namespace std;**

**namespace gradereport**

**{**

**class student**

**{**

**int rollno;**

**string sname, branch;**

**public:**

**void setRollno(int r){rollno=r;}**

**void setName(string s){sname=s;}**

**void setBranch(string b){branch=b;}**

**int getRollno(){return rollno;}**

**string getSname(){return sname;}**

**string getBranch(){return branch;}**

**};**

**class report**

**{**

**double mk1,mk2,mk3,per;**

**string grade;**

**public:**

**void setMk1(double m){mk1=m;}**

**void setMk2(double m){mk2=m;}**

**void setMk3(double m){mk3=m;}**

**void computePercent(){per=(mk1+mk2+mk3)/300\*100;}**

**void computeGrade(){**

**computePercent();**

**if(per>=70){**

**grade="DISTINCTION";**

**}**

**else if(per>=60&&per<70)**

**{**

**grade="FIRST";**

**}**

**else if(per>=50&&per<60)**

**{**

**grade="SECOND";**

**}**

**else if(per>=40&&per<50)**

**{**

**grade="PASS";**

**}**

**else**

**grade="FAIL";**

**}**

**double getMk1(){return mk1;}**

**double getMk2(){return mk2;}**

**double getMk3(){return mk3;}**

**double getPercent(){return per;}**

**string getGrade(){return grade;}**

**};**

**}**

**//program4.cpp**

**#include<iostream>**

**#include<string>**

**#include "grade\_report.h"**

**using namespace std;**

**using namespace gradereport;**

**int main()**

**{**

**student s[10];**

**report r[10];**

**cout<<"Enter the number of grade reports to be generated\n";**

**int n;**

**string student\_name,br\_name;**

**cin>>n;**

**int r1;**

**double mk1,mk2,mk3;**

**for(int i=0;i<n;i++)**

**{**

**cout<<"Enter student name, branch ,rollno \n";**

**cin>>student\_name>>br\_name>>r1;**

**s[i].setRollno(r1);**

**s[i].setName(student\_name);**

**s[i].setBranch(br\_name);**

**cout<<"Enter the marks of students in sub1,sub2,sub3\n";**

**cin>>mk1>>mk2>>mk3;**

**r[i].setMk1(mk1);**

**r[i].setMk2(mk2);**

**r[i].setMk3(mk3);**

**r[i].computeGrade();**

**}**

**for(int i=0;i<n;i++)**

**{**

**cout<<s[i].getSname()<<endl;**

**cout<<s[i].getRollno()<<endl;**

**cout<<s[i].getBranch()<<endl;**

**cout<<"Subject 1"<<endl<<r[i].getMk1()<<endl;**

**cout<<"Subject 2"<<endl<<r[i].getMk2()<<endl;**

**cout<<"Subject 3"<<endl<<r[i].getMk3()<<endl;**

**cout<<"Percent"<<endl<<r[i].getPercent()<<endl;**

**cout<<"Grade"<<endl<<r[i].getGrade();**

**cout<<endl;**

**}**

**return 0;**

**}**

Input:

1

niraj

comp

34

78

89

67

Output:

