import java.util.\*;

class Student

{

String usn,name;

int sem;

void data1()

{

name=usn="";

sem=0;

}

}

class Test extends Student

{

float cie[]=new float[6];

int credits[]=new int[6];

void data2()

{

name=usn="";

sem=0;

for(int i=0;i<6;i++)

{

cie[i]=0.0f;

credits[i]=0;

}

}

}

class Exam extends Test

{

float see[]=new float[6];

void data3()

{

name=usn="";

sem=0;

for(int i=0;i<6;i++)

{

cie[i]=see[i]=0.0f;

credits[i]=0;

}

}

}

class Result extends Exam

{

char grade[]=new char[6];

float sgpa;

void data4()

{

name=usn="";

sem=0;

for(int i=0;i<6;i++)

{

cie[i]=see[i]=0.0f;

credits[i]=0;

grade[i]='0';

}

}

public void Accept()

{

Scanner sc=new Scanner(System.in);

System.out.println("Enter your USN");

usn=sc.nextLine();

System.out.println("Enter your name");

name=sc.nextLine();

System.out.println("Enter your semester");

sem=sc.nextInt();

System.out.println("Enter the cie marks and credits for each subject");

for(int i=0;i<6;i++)

{

cie[i]=sc.nextFloat();

credits[i]=sc.nextInt();

}

System.out.println("Enter the see marks for each subject");

for(int i=0;i<6;i++)

see[i]=sc.nextFloat();

}

void Calculate()

{

int s=0;

int m=0;

float a=0;

float marks[]=new float[6];

for(int i=0;i<6;i++)

{

marks[i]=cie[i]+see[i];

}

for(int i=0;i<6;i++)

{

if(marks[i]>=90)

{

m=10;

grade[i]='S';

}

else if( marks[i]>=80)

{

m=9;

grade[i]='A';

}

else if( marks[i]>=70)

{

m=8;

grade[i]='B';

}

else if( marks[i]>=60)

{

m=7;

grade[i]='C';

}

else if( marks[i]>=50)

{

m=6;

grade[i]='D';

}

else if( marks[i]>=40)

{

m=4;

grade[i]='E';

}

else if(marks[i]<40)

{

m=0;

grade[i]='F';

s=s+credits[i];

a=a+(credits[i]\*m);

}

sgpa=a/s;

}

}

void Display()

{

System.out.println("The details of the student");

System.out.println("USN:"+usn+" Name:"+name);

System.out.println("Credits marks in CIE marks in SEE grade");

for(int i=0;i<6;i++)

{

System.out.println(credits[i]+" "+cie[i]+" "+see[i]+" "+grade[i]);

}

System.out.printf("SGPA %.2f",sgpa);

}

}

class MainStudent

{

public static void main(String args[])

{

int n;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the number of students");

n=sc.nextInt();

Result r[]=new Result[n];

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

{

r[i]=new Result();

r[i].Accept();

r[i].Calculate();

r[i].Display();

}

}

}



