**Experiment 2b**

**Aim:** Write a class ‘Student’ with the following specifications:

Data Members:

String studName : Name of student

String sid : Unique ID of the student

percentage : Percentage of student (Choose appropriate data-type)

Create a constructor to define the values for these data members. Also create a method which inputs the students marks calculates his final percentage, and prints an appropriate grade (A,B,C,D).

**Theory:** In this program we have to use encapsulation and print the data of a student i.e their name, id, percentage and grade.

**Algorithm:**

**Code:**

import java.util.\*;

class Student{

private String studName,sid;

private float percentage;

Student(){ //constructor

studName="Samarth";

sid="2021600023";

percentage=98;

}

public void setName(String newName){

this.studName=newName;

}

public void setsid(String newsid){

this.sid=newsid;

}

public void setpercentage(float perc){

this.percentage=perc;

}

public String getName(){

return studName;

}

public String getsid(){

return sid;

}

public float getpercentage(){

return percentage;

}

}

public class stuinfo{ //driver class

public static void main(String args[]){

Scanner sc = new Scanner(System.in);

Student s = new Student();

System.out.println("enter your name: ");

String name = sc.next();

System.out.println("enter your ID: ");

String id = sc.next();

//int perc=sc.nextFloat();

System.out.println("enter the number of subjects: ");

int n=sc.nextInt();

float perc=marks(n);

s.setName(name);

s.setsid(id);

s.setpercentage(perc);

System.out.println("Name= "+s.getName());

System.out.println("ID= "+s.getsid());

System.out.println("Percentage= "+s.getpercentage());

if((int)perc>=90){

System.out.println("Grade=A");

}

else if((int)perc>=80 && (int)perc<90){

System.out.println("Grade=B");

}

else if ((int)perc>=70 && (int)perc<80) {

System.out.println("Grade=C");

}

else {

System.out.println("Grade=D");

}

}

public static float marks(int n){

System.out.print("enter the marks in each subject: ");

Scanner sc = new Scanner(System.in);

float c=0,m;

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

m=sc.nextInt();

c=c+m;

}

return c/n;

}

}