WEEK 2

Develop a Java program to create a class Student with members usn, name, an array credits and an array marks. Include methods to accept and display details and a method to calculate SGPA of a student.

```java
import java.util.Scanner;

class student{
    student(){}
String name;
String usn;
float res=0;
int n;
int credits[]=new int[3];
int marks[]=new int[3];
int t=0;

void accept()
{
Scanner s=new Scanner(System.in);
System.out.println("Enter your Name ");
name=s.nextLine();
System.out.println("Enter USN ");
usn=s.nextLine();
System.out.println("Enter credits and marks");
for(int i=0;i<3;i++)
{
this.credits[i]=s.nextInt();
this.marks[i]=s.nextInt();
}
}
void calculate()
{
int grade=0;
for(int i=0;i<3;i++)
 {
if(marks[i]>=90)
grade=10;
else if(marks[i]>=80)
grade=9;
else if(marks[i]>=70)
```

```java
grade=8;
else if(marks[i]>=60)
grade=7;
else if(marks[i]>=50)
grade=6;
else if(marks[i]>=40)
grade=5;
else grade=0;
res=res+grade*credits[i];
 }
for(int i=0;i<3;i++)
t+=credits[i];
res=res/t;
}
void display()
{
System.out.println("Name:"+name+"\nUSN:"+usn);
System.out.println("Marks");
for(int i=0;i<3;i++)
System.out.println(marks[i]);
System.out.println("SGPA="+res);
}
}

class Lab_2
{
public static void main(String args[])
{
student s1=new student();
s1.accept();
s1.calculate();
s1.display();
}
}
```

```
C:\Users\bmscecse\Desktop\1BM21CS022>java Lab_2
Enter your Name
Aravind
Enter USN
1bm21cs080
Enter credits and marks
3 40 2 40 4 40
Name:Aravind
 USN:1bm21cs080
Marks
40
40
40
SGPA=5.0
```

(2) Develop a Java program to create a class student with members usn, name, an array credits and an array marks. Include methods to accept and display details and a method to calculate sgpa of student.

```java
import java.util.Scanner;

class Student {
String usn, name;
int[] marks = new int[3];
int[] credits = new int[3];
int[] grade = new int[3]

void accept() {
    Scanner s = new Scanner(System.in);
    System.out.println("Enter usn");
    usn = s.next();
    System.out.println("Enter name");
    name = s.next();
    System.out.println("Enter marks in 3 subjects");
    for(int i=0; i<3; i++) {
    marks[i] = s.nextInt();
    }
    System.out.println("Enter credits of 3 subjects");
    for(int i=0; i<3; i++) {
    credits[i] = s.nextInt();
    }
}

void display() {
    System.out.println("usn: " + usn);
    System.out.println("name: " + name);
    System.out.println("Marks in 3 subjects");
```

(3) Create a class Book which contains four members name, author, price, num-pages. Include a constructor to set the values for the members. Include methods to set and get the details of the object. Include a tostring () method that could display the complete details of the book. Develop a java program to create n book objects.

```java
import  java.util.Scanner;


class Book {
  String name, author;
  int num-pages;
  float price;
  Book (String n, String a, int num, float p) {
    this.n = name;
    this.a = author;
    this.num = num-pages;
    this.p = price;
  }

  Book () { }


  void set () {
    Scanner s = new Scanner (System.in);
    System.out.println (" Enter book name");
    name = s.nextLine ();
    System.out.println (" Enter book author");
    author = s.nextLine ();
    System.out.println (" Enter number of pages and price");
    num-pages = s.nextInt ();
    price = s.nextFloat ();
  }
```

return

Output

Enter your name
Aravind
Enter USN
1bm 21cs 080
Enter credits and marks
3 40   2 40   4 40
Name : Aravind
USN : 1bm21cs080
Marks
40
40
40
SGPA= 5