

SHREE VARNA M

Lab-2

18M22CS263.

- 1) Develop a Java program to create 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.

Note:
$$SGPA = \frac{\sum [(\text{Course credits}) (\text{Grade points})]}{\sum [\text{Course credits}]}$$

[including F Grade]

$$CGPA = \frac{\sum [(\text{Course credits}) (\text{Grade points})]}{\sum [\text{Course credits}]}$$

```
import java.util.*;
class Subject {
    int SubjectMarks;
    int credits;
    int grade;
}
```

```
class Student {
    Subject subject[];
    String name;
    String USN;
    double SGPA;
```

Scanner S;

Student ()

{

int i;

Subject = new Subject[3];

for (i=0; i<3; i++)

{

Subject[i] = new Subject();

}

S = new Scanner(System.in);

}

}

void getStudentDetails()

{

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

~~for~~ name = S.next();

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

USN = S.next();

}

void get Marks()

{

for (i=0; i<3; i++)

{

System.out.println("Enter the marks


```

for Subject " + (i+1) + " : ";
Subject [i]. Subject Marks = s.nextint();
System.out.println("Enter credits for
Subject " + (i+1) + " : ");
Subject [i]. credits = s.nextint();
Subject [i]. grade = Subject [i]. Subject
Marks / 10 + 1;

```

```

if (Subject [i]. grade == 11)
    Subject [i]. grade = 10;

```

```

if (Subject [i]. grade <= 4)
    Subject [i]. grade = 0;

```

```

}

```

```

}

```

```

void computeSGPA ()

```

```

{

```

```

    int score = 0;

```

```

    int totalcredit = 0;

```

```

    for (int i = 0; i < 3; i++)

```

```

    {

```

```

        score += Subject [i]. credits * Subject [i]. grade;

```

```

        totalcredit += Subject [i]. credits;

```

```

    }

```

```

    SGPAtotal = (double) score / (double) totalcredit

```

```

}

```

class Main

{

public static void main (String args)

{

Student S1: new Student();

S1.getStudentDetails();

S1.getMarks();

S1.computeSGPA();

System.out.println ("Name: " + S1.name)

System.out.println ("USN" + S1.USN)

System.out.println ("SGPA: " + S1.SGPA)

}

}

Output:

Enter your Name: Shree Varma

Enter the USN: 0011BMSSCS263

Enter the marks of Subject 1 is 90

Enter the credits of Subject 1 is 4

Enter the marks of Subject 2 is 95

Enter the credits of Subject 2 is 3

Enter the marks of Subject 3 is 80

Enter the credits of Subject 3 is 3

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Name : Shru

USN : 001BM22CS263

SGPA : 9.875

(10)

19/12/23