

## lab 3

Create a class Book which contains four members USN, 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 objects. Include a toString() methods that could display the complete details of the book.

```
import java.util.Scanner;
```

```
class student
```

```
{ String USN, name;
```

```
Scanner sl = new Scanner(System.in);
```

```
int size = sl.nextInt();
```

```
float credits[] = new float[size];
```

```
float mark[] = new float[size];
```

```
void accept()
```

```
{ System.out.println("Enter USN:");
```

```
USN = sl.next();
```

```
System.out.println("Enter name:");
```

```
name = sl.next();
```

```
System.out.println("Marks in the following subjects are
```

```
1. Maths 2. Physics 3. Chemistry
```

```
4. Python 5. Kannada 6. IDT
```

```
7. Electronics 8. English");
```

```
for (int i=0; i<size; i++)
```

```
{ System.out.println((i+1) + ". ");
```

```
mark[i] = sl.nextInt();
```

```
}
```

```
System.out.println("Respective credits of subjects are
```

```
1. Maths 2. Physics 3. Chemistry
```

```
4. Python 5. Kannada 6. IDT
```

```
7. Electronics 8. English");
```



```

for (int i = 0; i < size; i++)
{
    System.out.println((i+1) + ". ");
    credits[i] = sl.nextInt();
}

```

```

void display()

```

```

{
    System.out.println("USN: " + USN + "Name: " + name);
    System.out.println("Marks and Credits in");

```

```

    1. Maths 2. Physics 3. Chemistry
    4. Python 5. Kannada 6. IDT
    7. Electronics 8. English");

```

```

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

```

```

{
    System.out.println((i+1) + ". Marks = " + marks[i] +
        "Credits = " + credits[i] + ".");
}

```

```

int gpa (int i)

```

```

{
    if (marks[i] >= 90)

```

```

        return 10;

```

```

    else if (marks[i] >= 80 && marks[i] <= 89)

```

```

        return 9;

```

```

    else if

```

```

        return 8;

```

```

    else if

```

```

        return 7;

```

```

    else if

```

```

        return 6;

```

```

    else if

```

```

        return 5;

```

```

    else if

```

```

        return 4;
}

```



```

        else
            return 0;
    }

    float sgpa()
    {
        float SGPA, sum = 0;
        for (int i = 0; i < size; i++)
        {
            sum = sum + gpa(i) + credits[i];
        }
        SGPA = sum / 20;
        return SGPA;
    }
}

class student Demo
{
    public static void main (String [] args)
    {
        student s1 = new student ();
        s1.accept();
        s1.display();
        float Ans;
        Ans = s1.sgpa();
        System.out.println ("SGPA of the Student is: " + Ans);
    }
}

```

Output

Number of Books : 3

Enter Details of Book: 1

Name : abc

abcd

Author:

efgh

Price:



123

Number of Pages:

456

Enter Details of Book:

Name:

abcde

Author:

defgh

Price:

345

Number of Pages:

567

Name: abc

Author: def

Price: 600

Number of Pages: 445

Name: abcd

Author: efgh

Price: 123

Number of Pages: 456

Name: abcde

Author: defgh

Price: 345

Number of Pages: 567