

Lab\_program2-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.

```
import java.util.Scanner;

class Book{

    int num_pages;
    double price;
    String name;
    String author;
    Book(){
        num_pages=0;
        price=0.0;
        name="some_book";
        author="gamana";
    }
    Book(int num_pages,double price, String name, String author){
        this.num_pages=num_pages;
        this.price=price;
        this.name=name;
        this.author=author;
    }
    void set_data(int num_pages,double price, String name, String author)
    {
        this.num_pages=num_pages;
        this.price=price;
        this.name=name;
        this.author=author;
    }
    void get_data(){
        System.out.println("Book details\nname: "+name+"\nauthor: "+author+"\nnmber of pages: "+num_pages+"\nprice: "+price);
        System.out.println("\n-----\n");
    }
    public String toString(){
        return ("Book details\nname: "+name+"\nauthor: "+author+"\nnmber of pages: "+num_pages+"\nprice: "+price+"\n-----\n");
    }
}

class lab_2 {
    public static void main(String[] args) {
        Book b1=new Book();
        Scanner s=new Scanner(System.in);
        System.out.print("enter the name of the book: ");
        String name=s.nextLine();
        System.out.print("enter the author's name: ");
        String author=s.nextLine();
        System.out.print("enter the number of pages in the book: ");
        int num_pages=s.nextInt();
        System.out.print("enter the price of the book: ");
```

```

        double price=s.nextDouble();
        System.out.println();
        b1.set_data(num_pages,price,name,author);
        Book b2=new Book(20,87.65,"deception point","dan brown");
        b1.get_data();
        b2.get_data();
        System.out.println(b1);
        System.out.println(b2);
        s.close();

    }

}

```

```

C:\Users\umace\Desktop\IBH2ICS804>javac Studentdemo.java
C:\Users\umace\Desktop\IBH2ICS804>java Studentdemo
Enter student name :um
Enter usn:10h11cs004
Enter the number of subjects
3
Enter subjectmarks
88
Enter subjectcredits
4
Enter subjectmarks
89
Enter subjectcredits
3
Enter subjectmarks
88
Enter subjectcredits
3
Student details
Name :gagan
usn :10h11cs004
Marks and grade
88      10
89      9
88      8
SGPA :8.0
C:\Users\umace\Desktop\IBH2ICS804>

```

Lab\_program2-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.

## Program - 2

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❖ 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

```
→ import java.util.Scanner;
class Student {
    String usn, name;
    int credits[], marks[], gradepoints[], n; n = 0;
    double sgpa;

    void accept()
    {
        Scanner s = new Scanner(System.in);
        System.out.println("Enter student name, usn:");
        name = s.next();
        usn = s.next();
        System.out.println("Enter number of subjects");
        n = s.nextInt();
        for (i = 0; i < n; i++)
        {
            System.out.println("Enter subject " + (i+1) + " marks");
            marks[i] = s.nextInt();
            System.out.println("Enter subject " + (i+1) + " credits");
        }
    }
}
```

```
Credits[i] = sumt/tot();  
denom += credits[i];
```

```
}  
  
Void calculate()
```

```
{
```

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

```
if (marks[i] >= 90)
```

```
gradepoints[i] = 10;
```

```
else if (marks[i] >= 80 && marks[i] < 90)
```

```
gradepoints[i] = 9;
```

```
else if (marks[i] >= 70 && marks[i] < 80)
```

```
gradepoints[i] = 8;
```

```
else if (marks[i] >= 60 && marks[i] < 70)
```

```
gradepoints[i] = 7;
```

```
else if (marks[i] >= 50 && marks[i] < 60)
```

```
gradepoints[i] = 6;
```

```
else if (marks[i] >= 40 && marks[i] < 50)
```

```
gradepoints[i] = 4;
```

```
else
```

```
gradepoints[i] = 0;
```

```
num += credits[i] * gradepoints[i];  
}
```

```

} sgpa = name/dnom;

```

```

Void display()
{

```

```

    System.out.println(" Student details");

```

```

    System.out.println("name" + name + "\n" + "USN:" + USN
        + "\n");

```

```

    System.out.println("marks & grade");

```

```

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

```

```

    {
        System.out.println(marks[i] + "|" + grade[i]);
        System.out.println();
    }

```

```

}
System.out.println("SGPA" + sgpa);
}

```

```

Class Studentdemo

```

```

{

```

```

    public static void main (String args[])
    {

```

```

        Student s = new Student();

```

```

        s.accept();

```

```

        s.calculate();

```

```

        s.display();
    }

```

```

}

```

```

}

```



Output

Enter the student name, usn

gagan IBMUK1064

Enter the number of subjects

4

Enter subject 1 marks

89

Enter subject 1 credits

4

Enter subject 2 marks

90

Enter subject 2 credits

4

Enter subject 3 marks

56

Enter subject 3 credits

3

Enter subject 4 marks

78

Enter subject 4 credits

Student details

name: gagan

usn: IBMUK1064

marks

89

90

56

78

grades

9

10

6

8

*Neelima*  
2/12/2022

SGPA: 8.0