File Edit View

```
import java.util.Scanner;
class Quadratic{
public static void main(String ss[]){
Scanner sc=new Scanner(System.in);
System.out.println("Enter coefficient of a:");
double a=sc.nextDouble();
System.out.println("Enter coefficient of b:");
double b=sc.nextDouble();
System.out.println("Enter coefficient of c:");
double c=sc.nextDouble();
double d=b*b-4*a*c;
if(d>0){
double r1=(-b+Math.sqrt(d))/2*a;
double r2=(-b-Math.sqrt(d))/2*a;
System.out.println("Roots are"+" "+r1+"
else if (d==0){
double r1=-b/2*a;
double r2=-b/2*a;
System.out.println("Roots are"+" "+r1+" "+r2);
else if(d<0){
System.out.println("roots are rational");}
else{
System.out.println("INVALID INPUT !!!");}
```

```
3
roots are rational
D:\24BMSCE>java Quadratic
Enter coefficient of a:
-1
Enter coefficient of b:
-3
Enter coefficient of c:
Roots are -3.0 -0.0
D:\24BMSCE>java Ouadratic
Enter coefficient of a:
0
Enter coefficient of b:
Enter coefficient of c:
Roots are -0.0 -0.0
D:\24BMSCE>java Quadratic
Enter coefficient of a:
1
Enter coefficient of b:
2
Enter coefficient of c:
1
Roots are -1.0 -1.0
D:\24BMSCE>java Quadratic
Enter coefficient of a:
-9000
Enter coefficient of b:
7666
Enter coefficient of c:
76543
Roots are -2.0422855374111083E8 2.7322255374111086E8
D:\24BMSCE>
```





```
File
        Edit
                View
```

```
import java.util.Scanner;
class Student{
String usn;
String name;
int[] credits;
int[] marks;
int numberofSubjects;
Student(int numberofSubjects){
this.numberofSubjects=numberofSubjects;
credits=new int[numberofSubjects];
marks=new int[numberofSubjects];
void acceptDetails(){
Scanner sc=new Scanner(System.in);
System.out.println("ENTER USN:");
usn=sc.nextLine();
System.out.println("ENTER NAME:");
name=sc.nextLine();
for(int i=0;i<numberofSubjects;i++){</pre>
System.out.println("ENTER CREDITS:"+(i+1));
credits[i]=sc.nextInt();
System.out.println("ENTER MARKS:"+(i+1));
marks[i]=sc.nextInt();
void displayDetails(){
System.out.println("\n STUDENT DETAILS:");
System.out.println("USN:"+usn);
System.out.println("NAME:"+name);
for(int i=0;i<numberofSubjects;i++){</pre>
System.out.println("SUBJECT"+(i+1)+" "+"CREDITS:"+credits[i]+" "+"MARKS:"+marks[i]);}
System.out.println("SGPA:"+calculateSGPA());}
double calculateSGPA(){
double totalWeightedMarks=0;
int totalCredits=0;
for(int i=0;i<numberofSubjects;i++){</pre>
totalWeightedMarks+=marks[i]*credits[i];
totalCredits+=credits[i];}
if(totalCredits==0)
return 0;
return totalWeightedMarks/totalCredits;}
class StudentApp{
public static void main(String ss[]){
Common co-now Common/Custom int.
Ln 18, Col 20
```























```
if(totalCredits==0)
return 0;
return totalWeightedMarks/totalCredits;}
class StudentApp{
public static void main(String ss[]){
Scanner sc=new Scanner(System.in);
System.out.println("Enter the number of subjects:");
int numSubjects=sc.nextInt();
Student student=new Student(numSubjects);
student.acceptDetails();
student.displayDetails();
Ln 18, Col 20
```

```
D:\24BMSCE>javac StudentApp.java
D:\24BMSCE>java StudentApp
Enter the number of subjects:
ENTER USN:
ab12
ENTER NAME:
anitha
ENTER CREDITS:1
21
ENTER MARKS:1
89
ENTER CREDITS:2
ENTER MARKS:2
STUDENT DETAILS:
USN:ab12
NAME: anitha
SUBJECT1 CREDITS:21 MARKS:89
SUBJECT2 CREDITS:22 MARKS:90
SGPA:89.51162790697674
D:\24BMSCE>
```

File Edit View

```
import java.util.Scanner;
class Book{
String name, author;
double price;
int numPages;
Book(String name, String auhtor, double price, int numPages){
this.name=name;
this.author=author;
this.price=price;
this.numPages=numPages;}
void setDetails(){
Scanner sc=new Scanner(System.in);
System.out.println("enter name of the book:");
name=sc.next();
System.out.println("enter author of the book:");
author=sc.next();
System.out.println("enter price of the book:");
price=sc.nextInt();
System.out.println("enter number of pages of the book:");
numPages=sc.nextInt();}
void getDetails(){
System.out.println("Name of the book:"+name);
System.out.println("Author of the book:"+author);
System.out.println("Price of the book:"+price);
System.out.println("Number of pages of the book:"+numPages);}
public String toString(){
return "Book Name: "+name+"\n"+"Author: "+author+"\n"+"price: "+price+"\n"+"Number of pages: "+numPages;}
class MyBook{
public static void main(String ss[]){
Scanner sc=new Scanner(System.in);
System.out.println("Enter the number of books");
int n=sc.nextInt();
Book[] books=new Book[n];
for(int i=0;i<n;i++){
books[i]=new Book("time", "gallium", 99,150);
books[i].setDetails();
books[i].getDetails();
System.out.println("\n All book details:");
for(Book book:books){
System.out.println(book);
System.out.println();
```

Ln 1, Col 1







```
Command Prompt
                       X
D:\24BMSCE>javac MyBook.java
D:\24BMSCE>java MyBook
Enter the number of books
enter name of the book:
storv
enter author of the book:
william
enter price of the book:
600
enter number of pages of the book:
789
Name of the book:story
Author of the book:william
Price of the book:600.0
Number of pages of the book:789
enter name of the book:
motivation
enter author of the book:
robert
enter price of the book:
```

400 enter number of pages of the book: 7865

Name of the book:motivation Author of the book:robert Price of the book: 400.0

Number of pages of the book:7865

All book details: Book Name:story Author:william price:600.0

Number of pages:789

Book Name:motivation Author:robert price:400.0 Number of pages: 7865 File Edit View

```
abstract class Shape{
int dim1, dim2;
Shape(int x, int y){
dim1=x;
dim2=y;}
abstract double printArea();
class Rectangle extends Shape{
Rectangle(int a,int b){
super(a,b);
double printArea(){
return dim1*dim2;
}}
class Triangle extends Shape{
Triangle(int a,int b){
super(a,b);
double printArea(){
return 0.5*dim1*dim2;
}
class Circle extends Shape{
Circle (int a,int b){
super(a,0);
double printArea(){
return 3.14*dim1*dim1;
}
class AbstractDemo{
public static void main(String ss[]){
Rectangle r=new Rectangle(100,240);
Triangle t=new Triangle(10,20);
Circle c =new Circle(10,0);
System.out.println("Area of rectangle: "+r.printArea());
System.out.println("Area of triangle:"+t.printArea());
System.out.println("Area of circle:"+c.printArea());
}
```

```
C:\Users\thris>D:
D:\>cd 24BMSCE
D:\24BMSCE>javac AbstractDemo.java
D:\24BMSCE>java AbstractDemo
Area of rectangle:24000.0
Area of triangle:100.0
Area of circle:314.0
D:\24BMSCE>
```