

LAB PROGRAM

```
import java.util.*;  
import java.lang.*;
```

```
public class Main  
{
```

```
    public static void main (String args [] )  
{
```

```
        System.out.println ("Enter a, b, c of the  
Scanner scan = new Scanner (System.in); quadratic equation: ");
```

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

```
        double a = scan.nextDouble ();
```

```
        double b = scan.nextDouble ();
```

```
        double c = scan.nextDouble ();
```

```
        double D = (b * b) - (4 * a * c);
```

```
        System.out.println ("D = " + d);
```

```
        if (d == 0)  
{
```

```
            double r1 = -b / (2 * a);
```

```
            System.out.println ("The roots are real and  
System.out.println equal.");
```

```
            System.out.println (r1);
```

```
}
```

```
        else if (d > 0)
```

```
{
```

```
            double r1 = (-b + Math.sqrt (d)) / (2 * a);
```

```
            double r2 = (-b - Math.sqrt (d)) / (2 * a);
```

System.out.println ("The roots are real and
distinct.");

System.out.println (x1 + " and " + x2);

else

{

System.out.println ("There are no real
roots.");

y

z

3

Main - Notepad

File Edit Format View Help

```
import java.util.*;
import java.lang.*;

public class Main
{
    public static void main(String args [])
    {
        System.out.println("Enter a,b,c of the quadratic equation:");
        Scanner scan= new Scanner (System.in);
        double a= scan.nextDouble();
        double b= scan.nextDouble();
        double c= scan.nextDouble();
        double d= (b*b)-(4*a*c);
        System.out.println("D = "+d);
        if (d==0)
        {
            double r1=-b/(2*a);
            System.out.println("the roots are real and distinct.");
            System.out.println(r1);
        }
        else if(d>0)
        {
            double r1=(-b+Math.sqrt (d))/(2*a);
            double r2=(-b-Math.sqrt (d))/(2*a);
            System.out.println("The roots are real and distinct.");
            System.out.println(r1+" and "+r2);
        }
        else
        {
            System.out.println("There are no real roots.");
        }
    }
}
```

Command Prompt

Microsoft Windows [Version 10.0.19042.630]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\eshan>d:

D:\>cd java

D:\java>java Main
Enter a,b,c of the quadratic equation:

2

-4

6

D = -32.0

There are no real roots.

D:\java>

LAB PROGRAM 2

import java.util.Scanner;

class Student {

Scanner sc = new Scanner (System.in);
String USN;
String Name;
int credits [] = new int [5];
float marks [] = new float [5];
int points [] = new int [5];
float SGPA;
int totalCredits = 0;

void getDetails () {

System.out.println ("Enter student USN:");
USN = sc.nextLine();
System.out.println ("Enter student Name:");
Name = sc.nextLine();
totalCredits += credits [i];
System.out.println ("Enter Marks for Subject " + (i+1) + ": ");
marks [i] = sc.nextFloat();

}

}

void showDetails () {

System.out.println ("Student USN: " + USN);
System.out.println ("Enter student name: " + Name);

```
for (int i=0; i<5; i++) {
```

```
    System.out.println ("Subject "+(i+1)+" - Credits:"  
        + "- Marks : "+marks[i]);
```

```
}
```

```
System.out.println ("SGPA of "+Name+" is: "+  
(float)(SGPA/totalCredits));
```

```
}
```

```
void calcSGPA() {
```

```
    for (int i=0; i<5; i++) {
```

```
        if (marks[i]>100) {
```

```
            System.out.println ("Error: Marks  
are above 100");
```

```
        return;
```

```
    } else if (marks[i]>=90) {
```

```
        points[i]=10;
```

```
    } else if (marks[i]>=80) {
```

```
        points[i]=9;
```

```
    } else if (marks[i]>=70) {
```

```
        points[i]=8;
```

```
    } else if (marks[i]>=60) {
```

```
        points[i]=7;
```

```
    } else if (marks[i]>=50) {
```

```
        points[i]=5;
```

```
    } else if (marks[i]>=40) {
```

```
        points[i]=4;
```

```
    } else {
```

~~points~~

3 points [i] = 0;

3 SGPA += (points [i] * credits [i]);

3

public class student {

public static void main (String args []) {

student1 stul = new student1();

stul. getDetails ();

stul. calcSGPA ();

stul. showDetails ();

3

3

Student - Notepad

```
File Edit Format View Help
import java.util.Scanner;

class Student1{
    Scanner sc = new Scanner(System.in);
    String USN;
    String Name;
    int credits[] = new int[5];
    float marks[] = new float[5];
    int points[] = new int[5];
    float SGPA;
    int totalCredits = 0;

    void getDetails(){
        System.out.println("Enter student USN: ");
        USN = sc.nextLine();
        System.out.println("Enter student Name: ");
        Name = sc.nextLine();
        for(int i=0;i<5;i++){
            System.out.println("Enter CREDITS for Subject " + (i+1) + ": ");
            credits[i] = sc.nextInt();
            totalCredits += credits[i];
            System.out.println("Enter MARKS for Subject " + (i+1) + ": ");
            marks[i] = sc.nextFloat();
        }
    }

    void showDetails(){
        System.out.println("Student USN: " + USN);
        System.out.println("Enter student name: " + Name);
        for(int i=0;i<5;i++){
            System.out.println("Subject " + (i+1) + " - Credits: " + credits[i] + " - Marks: " + marks[i]);
        }
        System.out.println("SGPA of " + Name + " is: " + (float)(SGPA/totalCredits));
    }

    void calcSGPA(){

        for(int i = 0;i<5;i++){
            if(marks[i] > 100){
                System.out.println("Error: Marks are above 100");
                return;
            }else if(marks[i] >= 90){
                SGPA = SGPA + (marks[i]*10)/100;
            }else if(marks[i] >= 80){
                SGPA = SGPA + (marks[i]*8)/100;
            }else if(marks[i] >= 70){
                SGPA = SGPA + (marks[i]*7)/100;
            }else if(marks[i] >= 60){
                SGPA = SGPA + (marks[i]*6)/100;
            }else if(marks[i] >= 50){
                SGPA = SGPA + (marks[i]*5)/100;
            }else if(marks[i] >= 40){
                SGPA = SGPA + (marks[i]*4)/100;
            }else if(marks[i] >= 30){
                SGPA = SGPA + (marks[i]*3)/100;
            }else if(marks[i] >= 20){
                SGPA = SGPA + (marks[i]*2)/100;
            }else if(marks[i] >= 10){
                SGPA = SGPA + (marks[i]*1)/100;
            }else{
                SGPA = SGPA + (marks[i]*0.5)/100;
            }
        }
    }
}
```

Student - Notepad

```
File Edit Format View Help
    System.out.println("Subject " + (i+1) + " - Credits: " + credits[i] + " - Marks: " + marks[i]);
}
System.out.println("SGPA of " + Name + " is: " + (float)(SGPA/totalCredits));
}

void calcSGPA(){
    for(int i = 0;i<5;i++){
        if(marks[i] > 100){
            System.out.println("Error: Marks are above 100");
            return;
        }else if(marks[i] >= 90){
            points[i] = 10;
        }else if(marks[i] >= 80){
            points[i] = 9;
        }else if(marks[i] >= 70){
            points[i] = 8;
        }else if(marks[i] >= 60){
            points[i] = 7;
        }else if(marks[i] >= 50){
            points[i] = 5;
        }else if(marks[i] >= 40){
            points[i] = 4;
        }else{
            points[i] = 0;
        }
        SGPA += (points[i]*credits[i]);
    }
}

public class Student{
    public static void main(String args[]){
        Student1 stu1 = new Student1();
        stu1.getDetails();
        stu1.calcSGPA();
        stu1.showDetails();
    }
}
```

```
D:\java>java Student
Enter student USN:
1bm18cs131
Enter student Name:
eshan
Enter CREDITS for Subject 1:
5
Enter MARKS for Subject 1:
80
Enter CREDITS for Subject 2:
5
Enter MARKS for Subject 2:
75
Enter CREDITS for Subject 3:
4
Enter MARKS for Subject 3:
85
Enter CREDITS for Subject 4:
4
Enter MARKS for Subject 4:
70
Enter CREDITS for Subject 5:
3
Enter MARKS for Subject 5:
65
Student USN: 1bm18cs131
Enter student name: eshan
Subject 1 - Credits: 5 - Marks: 80.0
Subject 2 - Credits: 5 - Marks: 75.0
Subject 3 - Credits: 4 - Marks: 85.0
Subject 4 - Credits: 4 - Marks: 70.0
Subject 5 - Credits: 3 - Marks: 65.0
SGPA of eshan is: 8.285714

D:\java>
```

LAB PROGRAM -3

```
import java.util.*;
class BOOK {
    String name;
    String author;
    float price;
    int num_pages;
    Book() {
    }
    Book (String name, String author, int price, int num_pages)
    {
        this.name = name;
        this.name = author;
        this.price = price;
        this.num_pages = num_pages;
    }
    void display()
    {
        Scanner inp = new Scanner (System.in);
        System.out.println ("Enter name of book:");
        name = inp.next();
        System.out.println ("Enter author of book:");
        author = inp.next();
        System.out.println ("Enter number of pages of book:");
        num_pages = inp.nextInt();
    }
    public String toString()
    {
```

```
return ("Name : " + name + "\n" + "Author : " + "\n" +
       "Price : " + price + "\n" + "Number of pages :
       " + num_pages);
```

{

3

```
public class BookMain {
    public static void main (String args[])
    {
```

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

```
        System.out.println ("Enter the number of books : ");
```

```
        int n = a.nextInt ();
```

```
        Book b [] = new Book [n];
```

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

{

```
            b [i] = new Book ();
```

```
            System.out.println ("Enter the details of
                "+ (i+1) + " book );
```

```
            b [i].display ();
```

{

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

{

```
            System.out.println ("Details of book " + (i+1));
```

```
            b [i].display ();
```

{

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

{

```
            System.out.println ("Details of book " + (i+1));
```

```
            System.out.println (b [i]);
```

{

{

BookMain - Notepad

```
File Edit Format View Help
import java.util.*;
class Book {
String name;
String author;
float price;
int num_pages;
Book()
{}
Book(String name, String author, int price, int num_pages)
{
this.name=name;
this.author=author;
this.price=price;
this.num_pages=num_pages;
}
void display()
{
Scanner inp=new Scanner(System.in);
System.out.println("Enter name of book:");
name=inp.next();
System.out.println("Enter author of book:");
author=inp.next();
System.out.println("Enter price of book:");
price=inp.nextFloat();
System.out.println("Enter number of pages of book:");
num_pages=inp.nextInt();
}
public String toString()
{
return ("Name: "+name + "\n" + "Author: "+author + "\n" + "Price: "+price + "\n" +"Number of pages: "+num_pages );
}
}
public class BookMain {
public static void main(String args[])
{
Scanner a=new Scanner(System.in);
System.out.println("Enter the number of books:");
int n=a.nextInt();
Book b[]=new Book[n];
for(int i=0;i<n;i++)
{
b[i]=new Book();
System.out.println("Enter the details of "+(i+1)+" book");
b[i].display();
}
}
```

BookMain - Notepad

```
File Edit Format View Help
Book(String name, String author, int price, int num_pages)
{
    this.name=name;
    this.author=author;
    this.price=price;
    this.num_pages=num_pages;
}
void display()
{
    Scanner inp=new Scanner(System.in);
    System.out.println("Enter name of book:");
    name=inp.next();
    System.out.println("Enter author of book:");
    author=inp.next();
    System.out.println("Enter price of book:");
    price=inp.nextFloat();
    System.out.println("Enter number of pages of book:");
    num_pages=inp.nextInt();
}
public String toString()
{
    return ("Name: "+name + "\n" + "Author: "+author + "\n" + "Price: "+price + "\n" +"Number of pages: "+num_pages );
}
}
public class BookMain {
public static void main(String args[])
{
    Scanner a=new Scanner(System.in);
    System.out.println("Enter the number of books:");
    int n=a.nextInt();
    Book b[]=new Book[n];
    for(int i=0;i<n;i++)
    {
        b[i]=new Book();
        System.out.println("Enter the details of "+(i+1)+" book");
        b[i].display();
    }
    for(int i=0;i<n;i++)
    {
        System.out.println("Details of book "+(i+1));
        System.out.println(b[i]);
    }
}
}
```

Command Prompt

```
D:\java>java BookMain
Enter the number of books:
1
Enter the details of 1 book
Enter name of book:
jungle
Enter author of book:
rahu1
Enter price of book:
100
Enter number of pages of book:
100
Details of book 1
Name: jungle
Author: rahu1
Price: 100.0
Number of pages: 100
```

D:\java>

LAB PROGRAM 4

```
import java.util.Scanner;  
abstract class shape {
```

```
    int length, breadth;  
    void printArea()  
    {}  
}
```

```
class rectangle extends shape {
```

```
    double areaR;  
    void printArea()  
    {  
        areaR = (length * breadth);  
        System.out.println("The area of rectangle is  
                           "+areaR+" cm^2");  
    }  
}
```

```
class Triangle extends shape {
```

```
    double areaT;  
    void printArea()  
    {  
        areaT = (0.5) * (length * breadth);  
        System.out.println("The area of Triangle is  
                           "+areaT+" cm^2");  
    }  
}
```

```
class circle extends shape {
```

```
{
```

```
    double areaC;
```

```
    void printArea() {
```

```
        areaC = (3.14) * (length * length);
```

```
        System.out.println("The area of circle is  
        " + area + " cm2");
```

```
}
```

```
}
```

```
class Main {
```

```
{
```

```
    public static void main (String args[]) {
```

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

```
        Rectangle R1 = new Rectangle();
```

```
        Triangle T1 = new Triangle();
```

```
        Circle C1 = new Circle();
```

```
        System.out.println("Enter the length and  
        breadth of which you  
        have to find the area  
        of rectangle in cm[n]");
```

```
        R1.length = A.nextInt();
```

```
        R1.breadth = A.nextInt();
```

```
        System.out.println("Enter the length and breadth  
        of which you have to find  
        the area of triangle in cm[n]");
```

```
        T1.length = A.nextInt();
```

```
        T1.breadth = A.nextInt();
```

System.out.println ("Enter the length of
which you have to find
the area of circle in cm\");

C1. length = A. nextInt();

R1. printArea();

T1. print Area();

C1. print Area();

}

}

Main1 - Notepad

```
File Edit Format View Help
import java.util.Scanner;
abstract class Shape
{
    int length,breadth;
    void printArea()
    {}
}
class Rectangle extends Shape
{
    double areaR;
    void printArea(){
        areaR=(length*breadth);
        System.out.println("The area of rectangle is "+areaR+" cm^2");
    }
}
class Triangle extends Shape
{
    double areaT;
    void printArea(){
        areaT=(0.5)*(length*breadth);
        System.out.println("The area of Triangle is "+areaT+"cm^2");
    }
}
class Circle extends Shape
{
    double areaC;
    void printArea(){
        areaC=(3.14)*(length*length);
        System.out.println("The area of circle is "+areaC+"cm^2");
    }
}
class Main1
{
    public static void main(String args[])
    {
        Scanner A=new Scanner(System.in);
        Rectangle R1=new Rectangle();
        Triangle T1=new Triangle();
        Circle C1=new Circle();
        System.out.println("Enter the length and breadth of which u have to find the area of rectangle in cm\n");
        R1.length=A.nextInt();
        R1.breadth=A.nextInt();
    }
}
```

Main1 - Notepad

```
File Edit Format View Help
void printArea(){
areaR=(length*breadth);
System.out.println("The area of rectangle is "+areaR+" cm^2");
}
}
class Triangle extends Shape
{
double areaT;
void printArea(){
areaT=(0.5)*(length*breadth);
System.out.println("The area of Triangle is "+areaT+"cm^2");
}
}
class Circle extends Shape
{
double areaC;
void printArea(){
areaC=(3.14)*(length*length);
System.out.println("The area of circle is "+areaC+"cm^2");
}
}
class Main1
{
public static void main(String args[])
{
Scanner A=new Scanner(System.in);
Rectangle R1=new Rectangle();
Triangle T1=new Triangle();
Circle C1=new Circle();
System.out.println("Enter the length and breadth of which u have to find the area of rectangle in cm\n");
R1.length=A.nextInt();
R1.breadth=A.nextInt();
System.out.println("Enter the length and breadth of which u have to find the area of triangle in cm\n");
T1.length=A.nextInt();
T1.breadth=A.nextInt();
System.out.println("Enter the length of which u have to find the area of circle in cm\n");
C1.length=A.nextInt();
R1.printArea();
T1.printArea();
C1.printArea();
}
}
<
```

Command Prompt

D:\java>java Main1

Enter the length and breadth of which u have to find the area of rectangle in cm

6

8

Enter the length and breadth of which u have to find the area of triangle in cm

4

2

Enter the length of which u have to find the area of circle in cm

3

The area of rectangle is 48.0 cm²

The area of Triangle is 4.0cm²

The area of circle is 28.26cm²

D:\java>

Lab Program 5

```
import java.util.*;
import java.lang.Math;
class Account
{
```

```
    String name;
    int acctno;
    char type;
    double balance;
    double dep;
    boolean cheq;
```

```
    void get(char c)
{
```

```
        type = c;
        if (c == 'S' || c == 's')
            cheq = false;
        else cheq = true;
```

```
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter your name");
        name = sc.nextLine();
        System.out.println("Enter the account number");
        acctno = sc.nextInt();
        System.out.println("Enter the current available
                           balance in your account");
        balance = sc.nextDouble();
```

```
void putd()
```

```
{
```

```
    System.out.println ("Account details");  
    System.out.println ("Name : "+name);  
    System.out.println ("Account number : "+acctno);  
    System.out.println ("Account type : "+type);  
    System.out.println ("balance : "+balance);  
}
```

```
void dep()
```

```
{
```

```
Scanner ss = new scanner (System.in)  
System.out.println ("Enter the amount  
to be deposited");  
dep = ss.nextDouble();  
balance = balance + dep;  
System.out.println ("Amount has been  
deposited and balance has  
been updated");  
}
```

```
void display()
```

```
{
```

```
System.out.println ("Balance amount is "+balance);  
}
```

```
void check()
```

```
{
```

```
if (cheq == false)  
    System.out.println ("Cheque book facility is  
not available");
```

else

System.out.println("cheque book facility is available");

}

class savings extends Account

{

double rate;

double rate;

double s_with;

int n;

int ch;

double amt;

double term;

double pr;

~~void ci()~~

void ci()

{

Scanner ss = new Scanner(System.in)

System.out.println("enter principal deposit amount");

pr = ss.nextDouble();

System.out.println("enter the rate of interest");

rate = ss.nextDouble();

System.out.println("enter the term (years)");

term = ss.nextDouble();

System.out.println("enter the number of times interest is compounded annually");

```
n = ss.nextDouble();
```

```
System.out.println("Enter the number of times  
interest is compounded  
annually");
```

```
n = ss.nextInt();
```

```
amt = pr * Math.pow((1 + (rate / 100)), (n * terms));  
balance += amt;
```

```
System.out.println("Interest is compounded  
and deposited is updated");
```

```
}
```

```
void withdraw()
```

```
{
```

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

```
System.out.println("Enter the amount of  
money to be withdrawn");
```

```
s_with = ss.nextDouble();
```

```
if (s_with > balance)
```

```
System.out.println("Insufficient balance");
```

```
else
```

```
balance = balance - s_with;
```

```
System.out.println("Money has been  
withdrawn and balance  
has been updated");
```

```
}
```

```
3
```

```
class current extends Account
```

```
{
```

```
double c_with ;
```

```
double pen ;
```

```
double min ;
```

```
current ()
```

```
{
```

```
    pen = 100 ;
```

```
    min = 500 ;
```

```
}
```

```
mid with_c()
```

```
{
```

```
Scanner xx = new Scanner (System . in )
```

```
System . out . println ("Enter the amount to  
be withdrawn ");
```

```
c_with = xx . nextDouble ();
```

```
if (c_with > balance)
```

```
{ System . out . println ("Insufficient funds!");
```

```
return ; }
```

```
else
```

```
if (balance < min)
```

```
{ System . out . println ("Balance is below the  
minimum threshold. Service  
penalty charge = 100/-.");
```

```
if (balance < pen)
```

```
System . out . println ("Due to insufficient funds,  
penalty charge will be deducted  
from account after replenishing  
Current balance is "+balance);
```

else

{

balance = balance - pen;

System.out.println ("Penalty charge has been deducted from account balance. Current balance is "+ balance).

}

}

}

public class lab6

{

public static void main (String sss[])

int cch, chh;

Scanner sx = new Scanner (System.in);

System.out.println ("--- WELCOME ---");

System.out.println ("Savings account or current account ; 2 - Current");

int ch = sx.nextInt();

if (ch == 1)

{

Saving s = new Saving ();

s.get ('s');

do {

System.out.println ("1. Deposit money |n 2. Calculate compound interest |n 3. withdraw money |n 4. Display balance |n 5. cheque book facility |n 6. Exit ");

System.out.println ("Enter your choice");

ch = sc.nextInt();

switch (ch)

{

case 1:

s.dep();

break;

case 2:

s.ci();

break;

case 3:

s.with_S();

break;

case 4:

s.display();

break;

case 5:

s.check();

break;

case 6:

break;

default:

System.out.println ("Wrong option.");

```
break;
```

```
}
```

```
}
```

```
} while (ch != 6);
```

```
}
```

```
if else if (ch == 2)
```

```
current or = new current();
```

```
or.get ('c');
```

```
do {
```

```
System.out.println ("1. Deposit money\n2. Cheque  
book facility\n3. Withdraw  
money\n4. Display balance  
In 5. Exit");
```

```
cch = sx.nextInt();
```

```
switch (cch)
```

```
{
```

```
case 1:
```

```
or.dep();
```

```
break;
```

```
case 2:
```

```
or.check();
```

```
break;
```

```
case 3:
```

```
or.with_c();
```

```
break;
```

case 4:

 or. display();
 break;

Case 5:

 break;

default:

 System.out.println("Wrong option.");
 break;

}

} while (cch != 5);

}

else System.out.println("Wrong I");

3

}

lab6 - Notepad

```
File Edit Format View Help
import java.util.*;
import java.lang.Math;
class Account
{
    String name;
    int acctno;
    char type;
    double balance;
    double dep;
    boolean cheq;

    void get(char c)
    {
        type = c;
        if(c=='s' || c == 'S')
            cheq=false;
        else cheq=true;
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter your name");
        name = sc.nextLine();
        System.out.println("Enter the account number");
        acctno = sc.nextInt();
        System.out.println("Enter the current available balance in your account");
        balance= sc.nextDouble();
    }

    void putd()
    {
        System.out.println("Account details");
        System.out.println("Name: "+name);
        System.out.println("Account number: "+acctno);
        System.out.println("Account type :" +type);
        System.out.println("balance: " +balance);
    }

    void dep()
    {
        Scanner ss = new Scanner(System.in);
        System.out.println("Enter the amount to be deposited");
        dep= ss.nextDouble();
        balance=balance +dep;
        System.out.println("Amount has been deposited and balance has been updated");
    }

    void display()
    {
```

```
        System.out.println("Balance amount is "+balance);  
    }  
  
    void check()  
{  
        if(cheq==false)  
        System.out.println("Cheque book facility is not available");  
        else  
        System.out.println("Cheque book facility is available");  
    }  
  
}  
  
class Saving extends Account  
{  
  
    double rate;  
  
    double s_with;  
    int n;  
  
    int ch;  
    double amt;  
    double term;  
    double pr;  
  
  
    void ci()  
{  
        Scanner ss = new Scanner(System.in);  
        System.out.println("Enter principal deposit amount");  
        pr = ss.nextDouble();  
        System.out.println("Enter the rate of interest");  
        rate = ss.nextDouble();  
        System.out.println("Enter the term(years)");  
        term = ss.nextDouble();  
        System.out.println("Enter the number of times interest is compounded annually");  
        n = ss.nextInt();  
        amt = pr* Math.pow((1+(rate/100)),(n*term));  
        balance+= amt;  
        System.out.println("Interest is compounded and deposited; balance is updated");  
    }  
}
```

lab6 - Notepad

```
File Edit Format View Help
}

void with_s()
{
    Scanner ss = new Scanner(System.in);
    System.out.println("Enter the amount of money to be withdrawn");
    s_with = ss.nextDouble();
    if(s_with>balance)
        System.out.println("Insufficient balance");
    else
        {balance= balance - s_with;
        System.out.println("Money has been withdrawn and balance has been updated");}
}

class Current extends Account
{
    double c_with;
    double pen;
    double min;
    Current()
    {
        pen=100;
        min=500;
    }
    void with_c()
    {
        Scanner xx = new Scanner(System.in);
        System.out.println("Enter the amount to be withdrawn");
        c_with= xx.nextDouble();
        if(c_with>balance)
            {System.out.println("Insufficient funds!");
            return;}
        else
            {balance= balance- c_with;
            System.out.println("Amount has been withdrawn and balance has been updated");}
    }
}
```

```
lab6 - Notepad
File Edit Format View Help

{
    System.out.println("Balance is below the minimum threshold. Service penalty charge = 100/- .");
    if(balance<pen)
        System.out.println("Due to insufficient funds, penalty charge will be deducted from account after replenishing. Current balance is "+balance);
    else
    {
        balance= balance-pen;
        System.out.println("Penalty charge has been deducted from account balance. Current balance is "+balance);
    }
}

public class lab6
{
    public static void main(String sss[])
    {
        int cch, chh;
        Scanner sx = new Scanner(System.in);
        System.out.println("-----Welcome----I----");
        System.out.println("Savings account or current account? 1- Savings; 2- Current");
        int ch= sx.nextInt();
        if(ch==1)
        {
            Saving s = new Saving();
            s.get('S');
            do{
                System.out.println("1. Deposit money\n2. Calculate compound interest\n3. Withdraw money\n4. Display balance\n5. Cheque book facility\n6. Exit");
                System.out.print("Enter your choice");
                chh= sx.nextInt();
                switch(chh)
                {
                    case 1:
                    s.dep();
                    break;

                    case 2:
                    s.ci();
                    break;

                    case 3:
                    s.with_s();
                    break;
                }
            }while(chh!=6);
        }
    }
}
```

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```
lab6 - Notepad
File Edit Format View Help

case 3:
s.with_s();
break;

case 4:
s.display();
break;

case 5:
s.check();
break;

case 6:
break;

default:
System.out.println("Wrong option.");
break;
}
}while(chh!=6);

}

else if(ch==2)
{
    Current cr = new Current();
    cr.get('C');
    do{
        System.out.println("1. Deposit money\n2. Chequebook facility\n3. Withdraw money\n4. Display balance\n5. Exit");
        cch= sx.nextInt();
        switch(cch)
        {
            case 1:
            cr.dep();
            break;

            case 2:
            cr.check();
            break;

            case 3:
            cr.with_c();
            break;

            case 4:
            " " "
```

labb - Notepad

File Edit Format View Help

```
        }while(chh!=6);

    }

else if(ch==2)
{
    Current cr = new Current();
    cr.get('C');
    do{
        System.out.println("1. Deposit money\n2. Chequebook facility\n3. Withdraw money\n4. Display balance\n5. Exit");
        cch= sx.nextInt();
        switch(cch)
        {
            case 1:
                cr.dep();
                break;

            case 2:
                cr.check();
                break;

            case 3:
                cr.with_c();
                break;

            case 4:
                cr.display();
                break;

            case 5:
                I
                break;

            default:
                System.out.println("Wrong option.");
                break;
        }
    }while(cch!=5);

}

else System.out.println("Wrong!");
}
```

```
Command Prompt - java lab6
D:\java>java lab6
-----Welcome-----
Savings account or current account? 1- Savings; 2- Current
1
Enter your name
eshan
Enter the account number
94478
Enter the current available balance in your account
12000
1. Deposit money
2. Calculate compound interest
3. Withdraw money
4. Display balance
5. Cheque book facility
6. Exit
Enter your choice
1
Enter the amount to be deposited
5000
Amount has been deposited and balance has been updated
1. Deposit money
2. Calculate compound interest
3. Withdraw money
4. Display balance
5. Cheque book facility
6. Exit
Enter your choice
4
Balance amount is 17000.0
1. Deposit money
2. Calculate compound interest
3. Withdraw money
4. Display balance
5. Cheque book facility
6. Exit
Enter your choice
3
Enter the amount of money to be withdrawn
2000
Money has been withdrawn and balance has been updated
1. Deposit money
2. Calculate compound interest
3. Withdraw money
4. Display balance
5. Cheque book facility
6. Exit
Enter your choice
4
Balance amount is 15000.0
1. Deposit money
2. Calculate compound interest
```

```
Command Prompt - java lab6
Money has been withdrawn and balance has been updated
1. Deposit money
2. Calculate compound interest
3. Withdraw money
4. Display balance
5. Cheque book facility
6. Exit
Enter your choice
4
Balance amount is 15000.0
1. Deposit money
2. Calculate compound interest
3. Withdraw money
4. Display balance
5. Cheque book facility
6. Exit
Enter your choice
6

D:\java>java lab6
-----
Welcome-----
Savings account or current account? 1- Savings; 2- Current
2
Enter your name
eshan
Enter the account number
94478
Enter the current available balance in your account
17000
1. Deposit money
2. Chequebook facility
3. Withdraw money
4. Display balance
5. Exit
3
Enter the amount to be withdrawn
5000
Amount has been withdrawn and balance has been updated
1. Deposit money
2. Chequebook facility
3. Withdraw money
4. Display balance
5. Exit
4
Balance amount is 12000.0
1. Deposit money
2. Chequebook facility
3. Withdraw money
4. Display balance
5. Exit
```