LAB 3
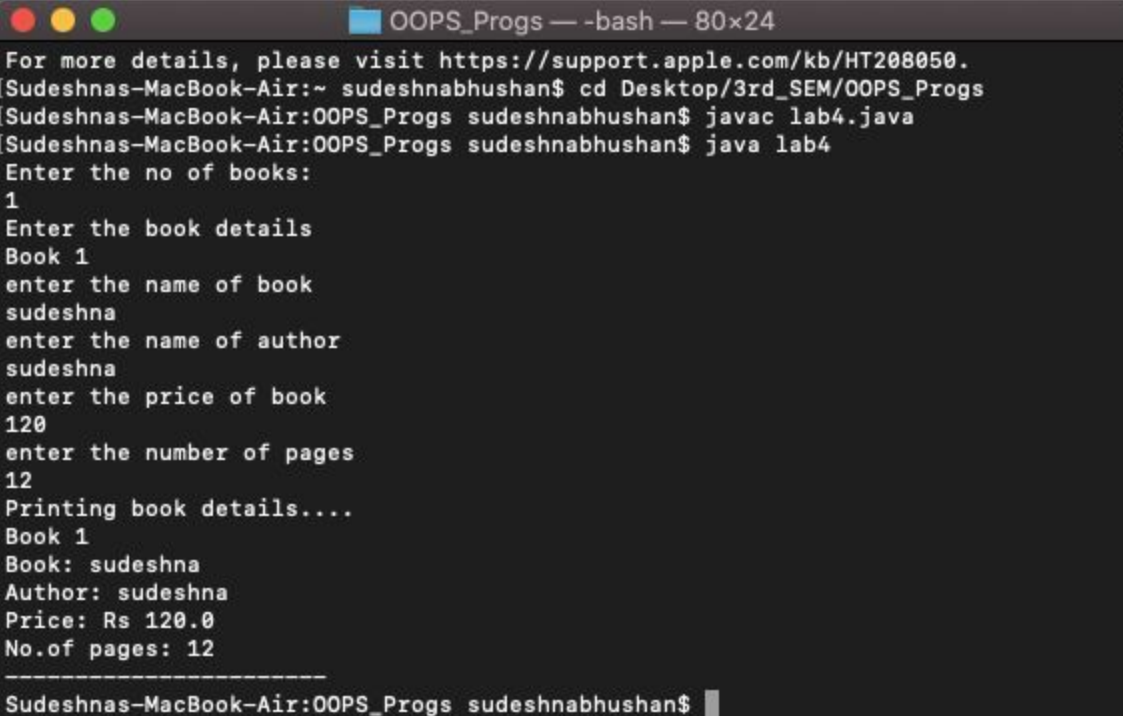
```java
import java.util.*;
class Book {
        String name;
        String author;
        int price;
        int num_pages;
        Book()
        {}
        Book(String name,String author,int price,int num_pages)
        {
                this.name=name;
                this.author=author;
                this.price=price;
                this.num_pages=num_pages;
        }
        void accept()
        {
                Scanner s=new Scanner(System.in);
                System.out.println("Enter the name of the book");
                name=s.next();
                System.out.println("Enter the author of the book");
                author=s.next();
                System.out.println("Enter the price of the book");
                price=s.nextInt();
                System.out.println("Enter the number of pages of the book");
                num_pages=s.nextInt();
        }
        public String toString()
        {
                return ("Name: "+name + "\n" + "Author: "+author + "\n" + "Price: "+price + "\n"
+"Number of pages: "+num_pages );
        }
}
class BookMain {
        public static void main(String ss[])
        {
                Scanner a=new Scanner(System.in);
```

```java
        Book b1=new Book("Heights","Anne",299,345);
        System.out.println("Sample input:\n"+b1);
        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].accept();
        }
        for(int i=0;i<n;i++)
        {
                System.out.println("Details of book "+(i+1));
                System.out.println(b[i]);
        }
    }
}
```



```
For more details, please visit https://support.apple.com/kb/HT208050.
Sudeshnas-MacBook-Air:~ sudeshnabhushan$ cd Desktop/3rd_SEM/OOPS_Progs
Sudeshnas-MacBook-Air:OOPS_Progs sudeshnabhushan$ javac lab4.java
Sudeshnas-MacBook-Air:OOPS_Progs sudeshnabhushan$ java lab4
Enter the no of books:
1
Enter the book details
Book 1
enter the name of book
sudeshna
enter the name of author
sudeshna
enter the price of book
120
enter the number of pages
12
Printing book details....
Book 1
Book: sudeshna
Author: sudeshna
Price: Rs 120.0
No.of pages: 12
----------------------
Sudeshnas-MacBook-Air:OOPS_Progs sudeshnabhushan$
```

LAB 4

```java
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 Main
{
public static void main(String args[])
```
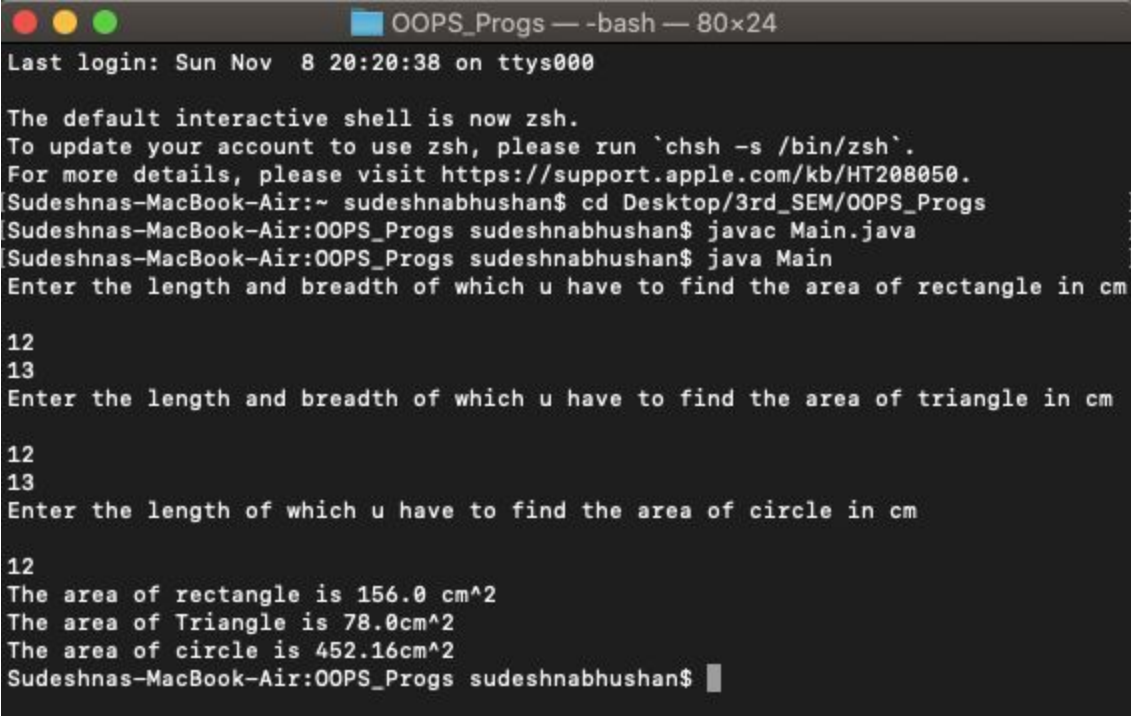
```
{
Scanner A=new Scanner(System.in);
Rectangle R1=new Rectangle();
Triangle T1=new Triangle();
Circle C1=new Circle();
System.out.println("Enter the length and breadth of which u have to find the area of rectangle in
cm\n");
R1.length=A.nextInt();
R1.breadth=A.nextInt();
System.out.println("Enter 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();
}
}
```

```
● ● ●                         OOPS_Progs — -bash — 80×24
Last login: Sun Nov  8 20:20:38 on ttys000

The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
Sudeshnas-MacBook-Air:~ sudeshnabhushan$ cd Desktop/3rd_SEM/OOPS_Progs
Sudeshnas-MacBook-Air:OOPS_Progs sudeshnabhushan$ javac Main.java
Sudeshnas-MacBook-Air:OOPS_Progs sudeshnabhushan$ java Main
Enter the length and breadth of which u have to find the area of rectangle in cm

12
13
Enter the length and breadth of which u have to find the area of triangle in cm

12
13
Enter the length of which u have to find the area of circle in cm

12
The area of rectangle is 156.0 cm^2
The area of Triangle is 78.0cm^2
The area of circle is 452.16cm^2
Sudeshnas-MacBook-Air:OOPS_Progs sudeshnabhushan$ ▌
```

LAB 5

```java
import java.util.Scanner;
class Bank
{
int deposit_balance;
int wthdraw_balance;
String customername;
String Account_Number;
String Account_Type;
int Balance=27890;
void accept()
{
Scanner s=new Scanner(System.in);
System.out.println("Enter the customer name\n");
customername=s.next();
System.out.println("Enter the Account Number\n");
Account_Number=s.next();
System.out.println("Enter the Account type\n");
Account_Type=s.next();
}
void display()
{
System.out.println("CUSTOMER  NAME : "+customername);
System.out.println("ACCOUNT NUMBER : "+Account_Number);
System.out.println("ACCOUNT TYPE : "+Account_Type);

}

}
class curr_acct extends  Bank{

int updated_balance;
int After_cwithdrawn;
int   updated_lost_cbalance;


int cdepo_ba(){

updated_balance=Balance+deposit_balance;
```

```java
return updated_balance;
}
int cwith_ba(){
After_cwithdrawn=((updated_balance)-(wthdraw_balance));
return After_cwithdrawn;
}
int minimum()
{
if((After_cwithdrawn)<=(2000))
{
updated_lost_cbalance=((After_cwithdrawn)-(200));
System.out.println("you have minimum balance below 2000 so u have lost 200 rs");

return updated_lost_cbalance;

}

else
return After_cwithdrawn;



}

}
class sav_acct extends Bank{

int supdated_balance;
int  After_swithdrawn;
int updated_lost_sbalance;
int compound_interest;
int sdepo_ba(){

supdated_balance=Balance+deposit_balance;
return supdated_balance;
}
int interest()
{
double r=0.08;
int n=12;
int t=5;
compound_interest=(int)((supdated_balance)*(Math.pow((1+(r/n)),(n*t))));
return compound_interest;
}
```

```java
int Swith_ba(){
After_swithdrawn=((compound_interest)-(wthdraw_balance));
return After_swithdrawn;
}

int minimum()
{
if((After_swithdrawn)<=(1000))
{
updated_lost_sbalance=((After_swithdrawn)-(100));
return updated_lost_sbalance;

}

else
return After_swithdrawn;
}
}

class Transactions{
public static void main(String args[]){
Scanner r=new Scanner(System.in);
curr_acct CA=new curr_acct();
CA.accept();
System.out.println("Enter the money u want to deposit in current account in rupees");
CA.deposit_balance=r.nextInt();
CA.display();
System.out.println("After your deposition of "+CA.deposit_balance+"\nNow your total balance is RS-"+CA.cdepo_ba());
System.out.println("Enter the money you want to withdraw in rupees");
CA.wthdraw_balance=r.nextInt();
System.out.println("After your withdrawal of "+CA.wthdraw_balance+"\nNow your total balance is RS-"+CA.cwith_ba());
System.out.println("After checking if u have minimum balance are not your updated total balance is RS-"+CA.minimum());
sav_acct SA=new sav_acct();
SA.accept();
System.out.println("Enter the money u want to deposit in Saving account");
SA.deposit_balance=r.nextInt();
SA.display();
System.out.println("After your deposition of "+SA.deposit_balance+"\nNow your total balance is RS-"+SA.sdepo_ba());
System.out.println("After interest ur updated balance is RS-"+SA.interest());
System.out.println("Enter the money you want to withdraw in Saving account");
```
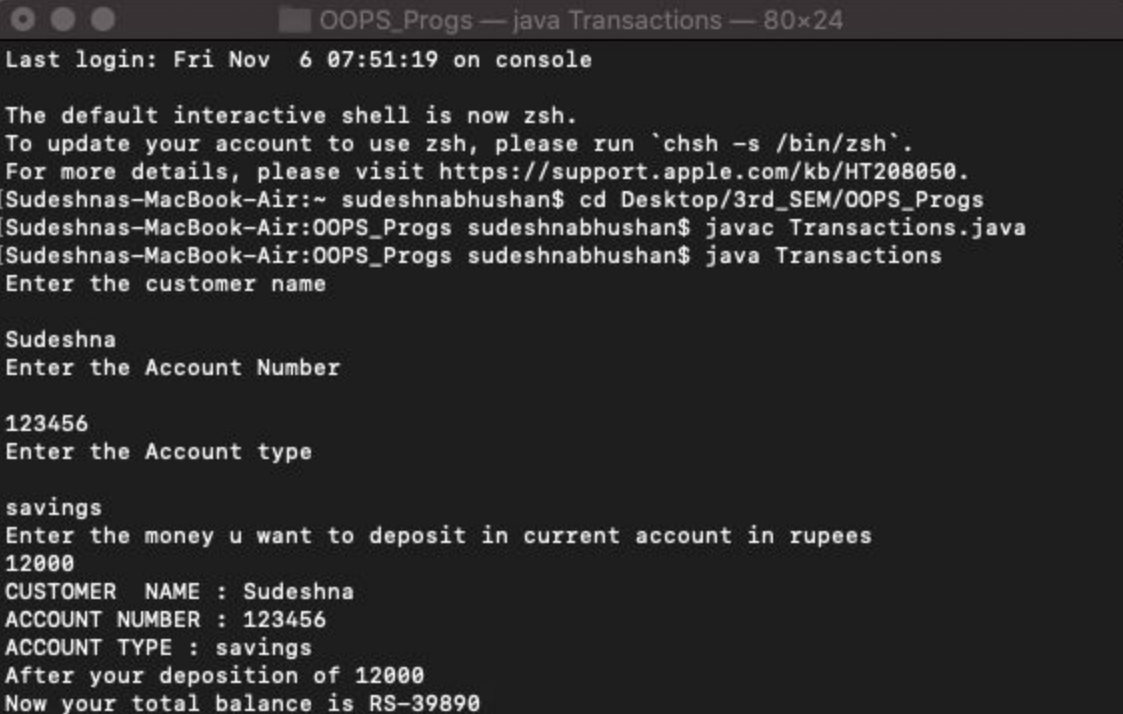
```
SA.wthdraw_balance=r.nextInt();
System.out.println("After your withdrawal of RS-"+SA.wthdraw_balance+"\nNow your total
balance is RS-"+SA.Swith_ba());

System.out.println("After checking if u have minimum balance are not your updated total
balance is RS-"+SA.minimum());


}
}
```

```
CUSTOMER   NAME : Sudeshna
ACCOUNT NUMBER : 123456
ACCOUNT TYPE : savings
After your deposition of 12000
Now your total balance is RS-39890
Enter the money you want to withdraw in rupees
1300
After your withdrawal of 1300
Now your total balance is RS-38590
After checking if u have minimum balance are not your updated total balance is R
S-38590
Enter the customer name

SUDESHNA
Enter the Account Number

123456
Enter the Account type

current
Enter the money u want to deposit in Saving account
230
CUSTOMER   NAME : SUDESHNA
ACCOUNT NUMBER : 123456
```