TASK 1:

```
package atm;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
import java.util.Scanner;
public class ATM {
public static void main(String[] args) throws Exception{
Scanner s=new Scanner(System.in);
Class.forName("com.mysql.cj.jdbc.Driver");
Connection c=DriverManager.getConnection("jdbc:mysql://localhost:3306/yuvi","root","root");
Statement st= c.createStatement();
ResultSet rs;
System.out.println("1. Load cash into ATM");
System.out.println("2. Show customer details");
System.out.println("3. Check ATM Balance");
int choice=s.nextInt();
switch(choice) {
case 1:System.out.println("Enter the Denominations");
  System.out.println("2000 = ");
  int d1=s.nextInt();
  System.out.println("500 = ");
  int d2=s.nextInt();
  System.out.println("100 = ");
  int d3=s.nextInt();
  rs=st.executeQuery("Select count(*) from atm");
  int x=0;
  while(rs.next()) {
  x=rs.getInt(1);
  }
  if(x==0) {
  st.executeUpdate("Insert into atm values(2000,"+d1+","+(2000*d1)+")");
  st.executeUpdate("Insert into atm values(500,"+d2+","+(500*d2)+")");
  st.executeUpdate("Insert into atm values(100,"+d3+","+(100*d3)+")");
  }
  else {
  st.executeUpdate("update atm set number=number+"+d1+" where denomination=2000");
  st.executeUpdate("update atm set number=number+"+d2+" where denomination=500");
  st.executeUpdate("update atm set number=number+"+d3+" where denomination=100");
  st.executeUpdate("update atm set value=value+"+(d1*2000)+" where denomination=2000");
  st.executeUpdate("update atm set value=value+"+(d2*500)+" where denomination=500");
  st.executeUpdate("update atm set value=value+"+(d3*100)+" where denomination=100");
 }
  System.out.println("Amount Entered Successfully !");
break;
case 2: rs=st.executeQuery("Select * from customers");
System.out.println("Acc_no    Acc_Holder_Name      Pin_No     Acc_Bal");
System.out.println();
while(rs.next()) {
System.out.println(rs.getInt(1)+"       "+rs.getString(2)+"              "+rs.getInt(3)+"     "
+ "  "+rs.getInt(4));
}
break;
case 3:
int total=0;
rs=st.executeQuery("Select * from atm");
System.out.println("Denomination   Number   Value");
System.out.println();
```

```
while(rs.next()) {
//System.out.println(rs.getInt(1)+"           "+rs.getInt(2)+"       "+rs.getInt(3));
System.out.printf("%04d          %03d      %d\n",rs.getInt(1),rs.getInt(2),rs.getInt(3));
total+=rs.getInt(3);
}
System.out.println();
System.out.println("Total amount in ATM = "+total);
break;
default:System.out.println("Enter valid option !");
}
s.close();
}
}
```

TASK 2& 3:

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
import java.util.Scanner;

public class Customer {
@SuppressWarnings({ "resource", "unused" })
public static void main(String[] args) throws Exception{
Scanner s= new Scanner(System.in);
Class.forName("com.mysql.cj.jdbc.Driver");
Connection c=DriverManager.getConnection("jdbc:mysql://localhost:3306/yuvi","root","root");
Statement st= c.createStatement();
ResultSet rs;
int total=0;
rs=st.executeQuery("Select value from atm");
while(rs.next()) total+=rs.getInt(1);
System.out.println("1. Check Balance");
System.out.println("2. Withdraw Money");
System.out.println("3. Transfer Money");
int choice=s.nextInt();
int acc_no=0,pin_no=0,acc_bal=0,amount=0,acno=0,w_amount=0,h_no=0;
String name="";
boolean b=true;
switch(choice) {
case 1:
System.out.println("Enter your account number : ");
acno=s.nextInt();
rs=st.executeQuery("Select count(*) from customers where acc_no="+acno);
while(rs.next()) {
if(rs.getInt(1)==0)
b=false;
}
if(!b) System.out.println("Account number not available , try again !");
else {
rs=st.executeQuery("select * from customers where acc_no="+acno);
while(rs.next()) {
acc_no=rs.getInt(1);
name=rs.getString(2);
pin_no=rs.getInt(3);
acc_bal=rs.getInt(4);
}
```

```
System.out.println("Enter your pin number : ");
int pin=s.nextInt();
if(pin==pin_no) {
System.out.println("Fetching Account details...");
System.out.println("Account Number : "+acc_no);
System.out.println("Account Holder Name : "+name);
System.out.println("Account Balance : Rs."+acc_bal);
}
else {
System.out.println("Account number and Pin Number does not match , try again !");
}
}
break;
case 2:
System.out.println("Enter your account number : ");
acno=s.nextInt();
rs=st.executeQuery("Select count(*) from customers where acc_no="+acno);
while(rs.next()) {
if(rs.getInt(1)==0)
b=false;
}
if(!b) System.out.println("Account number not available , try again !");
else {
rs=st.executeQuery("select * from customers where acc_no="+acno);
while(rs.next()) {
acc_no=rs.getInt(1);
name=rs.getString(2);
pin_no=rs.getInt(3);
acc_bal=rs.getInt(4);
}
System.out.println("Enter your pin number : ");
int pin=s.nextInt();
if(pin==pin_no) {
System.out.println("Enter amount to be withdrawn ");
amount=s.nextInt();
int temp=0,temp1=amount;
if((amount>10000 || amount<100) && amount%100==0 )
System.out.println("Amount to be withdrawn should be in range 100 and 10000");
else if(amount>acc_bal)
System.out.println("Account balance is lower than the entered withdrawal amount");
else if(amount>total)
System.out.println("ATM does not have enough money to vend !");
else {
while(amount>3000) {
w_amount+=2000;
st.executeUpdate("update customers set acc_bal=acc_bal-2000 where acc_no="+acc_no);
st.executeUpdate("update atm set number=number-1 where denomination=2000");
st.executeUpdate("update atm set value=value-2000 where denomination=2000");
amount-=2000;
temp+=2000;
}
while(amount>1000) {
w_amount+=500;
st.executeUpdate("update customers set acc_bal=acc_bal-500 where acc_no="+acc_no);
st.executeUpdate("update atm set number=number-1 where denomination=500");
st.executeUpdate("update atm set value=value-500 where denomination=500");
amount-=500;
temp+=500;
}
while(amount>0) {
```

```
h_no+=100;
amount-=100;
temp+=100;
}
w_amount+=h_no;
st.executeUpdate("update customers set acc_bal=acc_bal-"+h_no+" where acc_no="+acc_no);
st.executeUpdate("update atm set number=number-"+(h_no/100) +" where denomination=100");
st.executeUpdate("update atm set value=value-"+h_no +" where denomination=100");
}
System.out.println("Amount "+temp+" is withdrawn !");
if(temp!=temp1) {
System.out.println("Sorry :( "+(temp1-temp)+" is not available in the ATM");
}
}
else {
System.out.println("Account number and Pin Number does not match , try again !");
}
}
break;
case 3:
System.out.println("Enter your account number : ");
acno=s.nextInt();
rs=st.executeQuery("Select count(*) from customers where acc_no="+acno);
while(rs.next()) {
if(rs.getInt(1)==0)
b=false;
}
if(!b) System.out.println("Account number not available , try again !");
else {
rs=st.executeQuery("select * from customers where acc_no="+acno);
while(rs.next()) {
acc_no=rs.getInt(1);
name=rs.getString(2);
pin_no=rs.getInt(3);
acc_bal=rs.getInt(4);
}
System.out.println("Enter your pin number : ");
int pin=s.nextInt();
if(pin==pin_no) {
System.out.println("Enter the account number you want to transfer your money");
int aacno=s.nextInt();
boolean bb=true;
rs=st.executeQuery("Select count(*) from customers where acc_no="+aacno);
while(rs.next()) {
if(rs.getInt(1)==0)
bb=false;
}
if(!b) System.out.println("Account number not available , try again !");
else {
System.out.println("Enter the amount to transfer : ");
int temp3=s.nextInt();
if(temp3>acc_bal) {
System.out.println("Your Account Balance is too low for this transaction !");
}
else {
st.executeUpdate("update customers set acc_bal=acc_bal-"+temp3+" where acc_no="+acc_no);
st.executeUpdate("update customers set acc_bal=acc_bal+"+temp3+" where acc_no="+aacno);
System.out.println("Amount transfered successfully !");
}
}
```

```
}
else {
System.out.println("Account No. and Pin No. does not match !");
}
}
break;
default:System.out.println("Enter valid option !");
}
s.close();
}
}
```