**AtmDBDAO.java**

**package** ATM;

**import** java.sql.Connection;

**import** java.sql.DriverManager;

**import** java.sql.PreparedStatement;

**import** java.sql.ResultSet;

**import** java.sql.Statement;

**public** **class** AtmDBDAO {

**private** **static** **int** *accountBalance*;

**private** **static** **int** *depositBalance*;

/\*\*

\* function to handle show balance request

\*/

**public** **void** showBalance(String user){

**try**{

Class.*forName*("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","XE","XE");

//System.out.println("Connection Established:"+con);

Statement stmt=con.createStatement();

ResultSet rs=stmt.executeQuery("select Balance as ActBalance from AccountTable where u='"+user+"'");

**while**(rs.next()) {

*accountBalance* = rs.getInt(1);

//System.out.println("Your account balance is displayed below: ");

System.***out***.println(*accountBalance*);

}

rs.close();

con.close();

}**catch**(Exception e){

System.***out***.println(e);

}

}

/\*\*

\* function to handle withdrawal request

\* **@param** user

\* **@param** withdrawalAmount

\*/

**public** **void** withdraw(String user,**int** withdrawalAmount){

**try**{

System.***out***.print("Your account balance:");

showBalance(user);

**if**(withdrawalAmount>*accountBalance*){

System.***out***.println("Insufficient fund in your Account");

}**else**{

//calculate new account balance after deducting withdrawal amount

*accountBalance* = *accountBalance*-withdrawalAmount;

Class.*forName*("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","XE","XE");

**if**(withdrawalAmount%100==0) {

String update\_Balance = "update AccountTable set balance = ? where u = ?";

PreparedStatement stmt= con.prepareStatement(update\_Balance);

stmt.setInt(1, *accountBalance*);

stmt.setString(2, user);

stmt.executeUpdate();

System.***out***.print("Your Account balance is: "+*accountBalance*+".");

System.***out***.println("\nTransaction Complete. Please Collect your cash.");

}

**else** {

System.***out***.println("Please enter valid amount");

}

con.close();

}

}**catch**(Exception e){

System.***out***.println(e);

}

}

**public** **void** deposit(String user,**int** depositAmount){

**try**{

System.***out***.print("Your account balance:");

showBalance(user);

*accountBalance* = *accountBalance*+depositAmount;

Class.*forName*("oracle.jdbc.driver.OracleDriver");

Connection con=DriverManager.*getConnection*("jdbc:oracle:thin:@localhost:1521:xe","XE","XE");

**if**(depositAmount%100==0) {

**final** String update\_Balance = "update AccountTable set balance = ? where u = ?";

PreparedStatement stmt= con.prepareStatement(update\_Balance);

stmt.setInt(1, *accountBalance*);

stmt.setString(2, user);

stmt.executeUpdate();

System.***out***.print("Your Account balance is: "+*accountBalance*+".");

System.***out***.print("Transaction Complete.");

}

**else** {

System.***out***.println("Please enter valid amount");}

con.close();

}**catch**(Exception e){

System.***out***.println(e);

}

}

}

AtmMain.java

**package** ATM;

**import** java.util.Scanner;

**public** **class** AtmMain {

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

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

System.***out***.println("Welcome to ATM Services pvt Ltd.");

System.***out***.println();

System.***out***.println("Press 1 to enter your ATM");

**int** choice = scan.nextInt();

**if**(choice==1){

System.***out***.println("You have successfully entered your ATM");

}**else**{

System.***out***.println("Card not inserted properly. Retry!");

System.*exit*(0);

}

System.***out***.println("Enter your pin");

**boolean** validated = **false**;

String user = **null**;

**int** attempt = 0;

//Only three attempts to enter ATM pin

**while**(attempt<=3){

**int** pin = scan.nextInt();

validated = *validatePin*(pin);

user = *getUser*(pin);

**if**(validated==**false**){

++attempt;

**if** (attempt==3){

System.***out***.println("Your card has been blocked. Please contact your bank");

**break**;

}

System.***out***.println("Please re-enter the pin");

}**else**{

*displayBankingOptions*(validated, user);

}

}

}

//function to validate length of pin

**public** **static** **boolean** validatePin(**int** pin){

**boolean** validationResult = **false**;

String pin1 = String.*valueOf*(pin);

**int** pinLength = pin1.length();

//System.out.println(pinLength);

**if**(pinLength==4){

validationResult = **true**;

}

**if**(pin!=2627 || pin!=1142 ){

System.***out***.println("Incorrect Pin");

validationResult = **false**;

}

**return** validationResult;

}

**public** **static** String getUser(**int** pin){

String user = **null**;

**if**(pin==2627){

user = "A";

}

**else** **if**(pin==1142){

user = "B";

}

**else** {

System.***out***.println("Enter Valid Pin");

}

**return** user;

}

//Creating ATM Banking Menu

**public** **static** **void** displayBankingOptions(**boolean** validated, String user){

//System.out.println("Operation for user "+ user);

**while**(validated){

System.***out***.println("");

System.***out***.println("View Account Balance, Enter 1");

System.***out***.println("Withdraw Cash, Enter 2");

System.***out***.println("Deposit Cash, Enter 3");

System.***out***.println("To Exit, Enter 0");

System.***out***.println();

System.***out***.println("Enter choice::");

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

**int** choice = scan .nextInt();

AtmDBDAO adao=**new** AtmDBDAO();

**switch**(choice){

**case** 1: System.***out***.println("Your Account balance is: ");

//AtmDBDAO dao = new AtmDBDAO();

adao.showBalance(user);

**break**;

**case** 2: System.***out***.println("Enter the amount to be withdrawn. \nAvailable denominations are Rs. 100, Rs. 200, Rs. 500, Rs. 2000");

Scanner sc = **new** Scanner(System.***in***);

**int** withdrawalAmount = sc.nextInt();

//AtmDBDAO dao1 = new AtmDBDAO();

adao.withdraw(user, withdrawalAmount);

**break**;

**case** 3: System.***out***.println("Enter the amount to be deposited:");

Scanner sca = **new** Scanner(System.***in***);

**int** depositAmount = sca.nextInt();

//AtmDBDAO dao2 = new AtmDBDAO();

adao.deposit(user, depositAmount);

**break**;

}

System.***out***.println("Thank you for using our Services.");

System.*exit*(0); //Lets you exit from ATM system

}

}

}