**Assignment 10**

**JBCD\_exception handling \_ string\_array\_collection, static method, oops concept.**

**1. make a database 'db\_bank'**

**2. Make a table in it 'tbl\_account'**

**3. Make a table in it 'tbl\_transaction' (accountnumber, transaction date, amount, transaction type, balance)**

**3. Java program to add a deatils of the account holder**

**method saveDetails(account number,name, age, address, opening balance ammount)**

**4. Transaction of bank account.**

**Method transaction(accountnumber , date, transaction type ,amount)**

**is deposit then add the amount and withdrawal will -minus the amount from the balance.**

**if balnce is less than withdrawal then send exception 'Please check the amount ! Low balance'**

**5. Printing the passbook**

**Method printData(account details and then transaction details);**

**print this data in one text file with account holder name ex: tom.txt**

**make a join query for this.**

**6. flush the account**

**method deleteAccount()**

**This will detele all your account details and transaction from the table**

**and delete the file from your folder also where it is save.**

**Used switch case and program will run till user press or type 'exit' command.**

**Do simple code dont make a code confusion.**

**Mark will be given on cleand and understanding code.**

**use comment on every line of code.**

**make code dependent so we can used it in any other project also.**

**Once completed commit in github.**

**Ans:**

**Import java.sql.\*;**

**import java.util.\*;**

**import java.io.\*;**

**import java.io.printwriter;**

**public class jdbcex class**

**{**

**static final String JDBC\_DRIVER = "com.mysql.jdbc.Driver";**

**static final String DB\_URL = "jdbc:mysql://localhost:3306/db\_bank";**

**static final String USER = “root”;**

**static final String PASS = "";**

**static Connection connection;**

**static Scanner s;**

**static java.sql.Date date;**

**static {**

**try {**

**Class.forName(JDBC\_DRIVER);**

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

**if (connection == null || connection.isClosed()) {**

**connection = DriverManager.getConnection(DB\_URL, USER, PASS);**

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

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

**Calendar calendar = Calendar.getInstance();**

**date = new java.sql.Date(calendar.getTime().getTime());**

**System.out.println("date: " + date);**

**}**

**} catch (Exception e) {**

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

**}**

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

**System.out.println(“#@@@@@@@@@@@@BANK MANAGEMENT SYSTEM@@@@@@@@@@@@@@@@@@#”);**

**while(true)**

**{**

**System.out.println("1.create account.");**

**System.out.println("2.Transaction.");**

**System.out.println("3.printData");**

**System.out.println("4.Delete Account");**

**Scanner s=new Scanner("System.in");**

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

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

**switch(choice)**

**{**

**case 1:**

**System.out.println("Enter your account number");**

**int accno=s.nextInt();**

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

**String name=s.nextLine();**

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

**int age=a.nextInt();**

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

**String address=s.nextLine();**

**System.out.println("Enter opening balance amount");**

**int opbalam=s.nextInt();**

**saveDetails(accno,name,age,address,opbalam); tbl\_account**

**break;**

**case 2:**

**System.out.println("Enter account no");**

**int accno2=s.nextInt();**

**System.out.println("Enter transaction date");**

**Stringdate=s.nextLine(); System.out.println("Enter amount");**

**int amount=s.nextInt();**

**System.out.println("Enter transaction type");**

**String trantype=s.nextLine();**

**System.out.println("Enter your account balance"); int balance1=s.nextInt(); try**

**{**

**transaction(accno2,date,amount,trantype,balance1);**

**transactions in tbl\_transaction**

**}**

**catch (Exception e)**

**{**

**e.printStackTrace();**

**}**

**break;**

**case 3:**

**printData();**

**break;**

**case 4:**

**deleteAccount();**

**break;**

**default:**

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

**}**

**}**

**}**

**public static void saveDetails(int accno,String name,int age,String address,int opbalam)**

**{**

**Try**

**{**

**Statement stmt=null;**

**Connection conn = null;**

**System.out.println("Connecting to a selected database...");**

**Conn2=DriverManager.getConnection(DB\_URL, USER, PASS);**

**System.out.println("Connected database successfully...");**

**Class.forName("com.mysql.jdbc.Driver");**

**stmt = conn.createStatement();**

**System.out.println("Inserting records into the table...");**

**String sql = "INSERT INTO ‘tbl\_account’(‘acco’,’name’,’age',’address’) VALUES(‘”+accno+”’,’”+name+”’,’”+age+”’,’”+address”’)";**

|  |
| --- |
|  |
|  |  |

**stmt.executeUpdate(sql);**

**System.out.println("Inserted records into the tbl\_account table...");**

**}**

**catch(SQLException se)**

**{**

**se.printStackTrace();**

**}**

**catch(Exception e)**

**{**

**e.printStackTrace();**

**}**

**System.out.println("Account Successfully creadted");**

**}**

**public static void transaction(int accno1,String date1,int amount,String trantype,int balance1) throws Exception**

**{**

**String test=null;**

**test.toString();**

**try**

**{**

**Statement stmt1 = null;**

**Connection conn3 = null;**

**System.out.println("Connecting to a selected database...");**

**conn3 = DriverManager.getConnection(DB\_URL, USER, PASS);**

**System.out.println("Connected database successfully...");**

**Class.forName("com.mysql.jdbc.Driver");**

**stmt1 = conn3.createStatement();**

**System.out.println("Inserting records into the table...");**

**String sql2="INSERT INTO `tbl\_transaction’(‘accno1',’date11’,’aamount',’trantype’,’balance1') VALUES(‘”+accno1+”’,’”+date1+”’,’”+amount+”’,’”+trantype+”’,’”+ balance1+”’)";**

**stmt1.executeUpdate(sql2);**

**System.out.println("Inserted records into the table...");**

**String str3="deposit";**

**//now this if-else checkes whether the trantype is deposit or withdraw if it is deposit then it adds the amount to the current balance//**

**//and if it is withdraw then minus the amount from current balance//**

**if(trantype.equals(str3))**

**{**

**balance1=balance1+amount;**

**//adds the amount to balance(deposit)//**

**}**

**else**

**{**

**balance1=balance1-amount;**

**if(balance1<amount)**

**{**

**throw new Exception("please check the ammount! Low balance");**

**}**

**}**

**sql2="UPDATE `tbl\_transaction` SET `balance`=balance1 WHERE 1";**

**stmt1.executeUpdate(sql2);**

**}**

**catch(SQLException se)**

**{**

**se.printStackTrace();**

**}**

**catch(Exception e)**

**{**

**e.printStackTrace();**

**}**

**System.out.println("Transaction Successfully done!");**

**}**

**public static void printData()**

**{**

**try**

**{**

**System.out.println("Please enter the account number for which you wann print passbook : \n");**

**int accnumber = s.nextInt();**

**String sql5 = "select a.accno,a.name,a.age,a.address,t.date1,"**

**+ "t.trantype,t.amount,t.balance1 from tbl\_account a, "**

**+ "tbl\_transaction t where a.accno=t.accno1 and t.accno1='"+accnumber+"'";**

**System.out.println("sql5 : " + sql5);**

**try {**

**String name = "";**

**PrintWriter outputfile = null;**

**StringBuffer sbf1 = new StringBuffer();**

**sbf1.append("\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n"**

**+ "Date \t\t" + "Amount\t"**

**+ "\tTransactionType \t" + "Balance\n");**

**ResultSet rs = connection.createStatement().executeQuery(sql5);//here resultset is used fetch data from database**

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

**//create StringBuffer object**

**StringBuffer sbf = new StringBuffer();**

**name = rs.getString("a.name");**

**sbf.append("\nName:" + rs.getString("a.name"));**

**sbf.append("\nAccount: " + rs.getInt("a.accno"));**

**sbf.append("\nAddress: " + rs.getString("a.address"));**

**sbf.append("\nBalance: " + rs.getInt("t.balance1"));**

**sbf.append("\nTransaction:");**

**System.out.println("print data : " + sbf);**

**sbf1.append("\n" + rs.getString("t.date1"));**

**sbf1.append("\t" + rs.getString("t.amount"));**

**sbf1.append("\t\t" + rs.getString("t.trantype"));**

**sbf1.append("\t\t\t" + rs.getInt("t.balance1"));**

**System.out.println("print data : " + sbf);**

**String filename = name + ".txt";**

**outputfile = new PrintWriter(filename);**

**outputfile.append(sbf.toString());**

**System.out.println("Successfully wrote to the file.");**

**}**

**outputfile.append(sbf1.toString());**

**outputfile.close();**

**}//handles file operation errors**

**catch (Exception e) {**

**System.out.println("An error occurred.");**

**e.printStackTrace();**

**}**

**} catch (Exception e) {**

**}**

**}**

**defination starts here**

**public static void deleteAccount()**

**{**

**try**

**{**

**Statement stmt4 = null;**

**stmt4 = connection.createStatement();**

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

**System.out.println("Do you really want to delete account? if yes enter account\_no");**

**int no = sn.nextInt();**

**String sqlacc = "SELECT name FROM `tbl\_account` WHERE accno ='" + no + "'";**

**ResultSet rs = connection.createStatement().executeQuery(sqlacc);**

**String name = null;**

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

**name = rs.getString("name");**

**}**

**String sql4 = "DELETE FROM `tbl\_transaction` WHERE accno1='" + no + "'";**

**//execute query**

**stmt4.executeUpdate(sql4);**

**String sql5 = "DELETE FROM `tbl\_account` WHERE accno='" + no + "'";**

**//execute query**

**stmt4.executeUpdate(sql5);**

**String filename = name + ".txt";**

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

**File f = new File(filename); //file to be delete**

**if (f.delete()) //returns Boolean value**

**{**

**System.out.println(f.getName() + " deleted"); //getting and printing the file name**

**} else {**

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

**}**

**System.out.println("Account is beign deleted ...!");**

**} //handles jdbc errors**

**catch (SQLException se) {**

**se.printStackTrace();**

**}**

**}**

**//end \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**