```
import java.io.*;
import java.sql.*;          //this package is
imported for sql connection
import java.util.*;         //this package is
imported to use scanner
//this package is imported to perform file
operations




public class  Bankmanagment //declaration of
jdbcex class
{                           //curly bracket
start
    //JDBC driver name and database URL



  static final String JDBC_DRIVER =
"com.mysql.jdbc.Driver";
//declaration of static variable JDBC_DRIVER
and value initialized to it
    static final String DB_URL =
"jdbc:mysql://localhost:3306/db_bank";
```

```
//declaration of static variable
DB_URL,databse path initialized to it
    //Database Credentials
    static final String USER = "root";
//declaration of static variable USER and
value initialized to it
    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);
        }

    }//declaration of static variale PASS
and blankvalue assigned to it




public static void main(String[] args)
//declaration of main method,execution
starts from here
    {
        //In this program two tables are
created tbl_transaction and tbl_account
```

```
//tbl_transaction(acc_no,transaction_date,amount,transaction_type,balance)

//tbl_account(acc_no,name,age,address,opening_balance_ammount)
        try {
             String s1=null;
            do
            {

System.out.println("##########**********BANK MANAGEMENT SYSTEM***************########");
            System.out.println("1.New account ");

System.out.println("2.Transaction.");
            System.out.println("3.Printdata);
            System.out.println("4.Delete Account");
            //initializing scanner to accept values
            System.out.println("Enter your choice");
            int choice = s.nextInt();
```

```
 switch (choice) {
                case 1:
```

System. Out. Println("Enter your full name :");

String name=s.next();

System. Out. Println("Enter your age ");

Int age=s.nextInt();

System. Out. Println("Enter your address :");

String address =s. next();

System. Out. Println("Enter your opening balance amount :");

Int opbalam=s.nextInt();

```
  //scan open_bal_amount entered by user and
store it in opbalam variable

saveDetails(name,age,address,opbalam);
//calling saveDetails()function to insert
the values in tbl_account
                    break;
```

Case 2:

```
            System.out.println("Enter
account no");
//prints the double quoted text on output
console screen

            int account_no= s.nextInt(),
balance1 = 0;

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

            System.out.println("Enter
amount");
//prints the double quoted text on output
console screen

            int amount = s.nextInt();
//scan amount entered by user and store it
in amount variable

            System.out.println("Enter
transaction type");
//prints the double quoted text on output
console screen
```

String trantype=s.next();

Transaction (account_no,amount,trantype);

Break;

Case 3:

System. Out. Println("Enter a account number for which you want to print data:");

Int account_ no=s. nextInt();

Printdata(account_ no);

Break ;

```
  case 4:
```

System. Out. Println(“Enter account_no which you want to delete account :”);

Int no= s. nextInt();

```
                    deleteAccount(account_
no);
                    break;


 default:
                    //prints the double
quoted text on output console screen

System.out.println("Invalid choice from user!");
                    break;
            }
            System.out.println("Do you want
to Continue .(Yes/No)?");
             s1 = s.next();
        }while(s1.equals("Yes"));
```

```
        }catch (Exception e) {
            System.out.println(e);
        }finally{

        System.exit(0);
        }

    }   //end of the main() function




//saveDetails() function defination starts
here
    public static void saveDetails() throws
SQLException {
        try {


  Statement stmt = null;
            stmt =
connection.createStatement();
            System.out.println("Inserting
records into the table...");
```

```
            String sql = "INSERT INTO
`tbl_account` (`name`, `age`, `address`)
VALUES('" + name + "','"
                    + age + "','" + address
+ "')";
            //execute a query
            stmt.executeUpdate(sql);
            System.out.println(" records inserted
Successfully into the tbl_account table...");


            String sqlaccno = "Select
max(accno) from tbl_account";
            ResultSet rs =
connection.createStatement().executeQuery(sq
laccno);


            while (rs.next()) {
                int accno = rs.getInt(1);
                System.out.println(name + "
your acont number is : " + accno + "please
save it for further used");


                String sql2 = "INSERT INTO
`tbl_transaction` (`accno1`, `date1`,
`trantype`, "
                        + "`amount`,
`balance1`) "
```

```
                        + "VALUES ('" +
accno + "', '" + date + "', 'deposit', '" +
opbalam + "', '" + opbalam + "')";


                stmt.executeUpdate(sql2);

System.out.println("Intialization of
transaction is also done...");
            }
        } //if SQLException occurs in the
above statements then this catch statement
catches it and prints the exception
        catch (SQLException se) {
            System.out.println(se);
        }
        System.out.println(" New account
successfully created ");
    } //end of saveDetails function




//transactio function defination starts here
```

```
    public static void transaction() throws
Exception {
        try {
            Statement stmt1 = null;
            String sqlbal = "SELECT balance1
FROM `tbl_transaction` WHERE accno1 ='" +
accno2 + "' "
                    + "and transactionid in
(SELECT max(transactionid) FROM "
                    + "`tbl_transaction`
WHERE accno1 ='" + accno2 + "')";
            ResultSet rs =
connection.createStatement().executeQuery(sq
lbal);

            while (rs.next()) {
                balance1 =
rs.getInt("balance1");
            }
            if (trantype.equals("deposit"))
{
                balance1 = balance1 +
amount;
                stmt1 =
connection.createStatement();

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

```
                String sql2 = "INSERT INTO
`tbl_transaction` (`accno1`, `date1`,
`trantype`, "
                        + "`amount`,
`balance1`) "
                        + "VALUES ('" +
accno2 + "', '" + date + "', 'deposit',"
                        + " '" + amount +
"', '" + balance1 + "')";


                stmt1.executeUpdate(sql2);
                System.out.println("Inserted
records into the table...");


            }
else if (trantype.equals("withdrawal")) {
                if (balance1 > amount) {
                    balance1 = balance1 -
amount;
                    stmt1 =
connection.createStatement();

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


                    String sql2 = "INSERT
INTO `tbl_transaction` (`accno1`, `date1`,
`trantype`, "
```

```
                                + "`amount`,
`balance1`) "
                                + "VALUES ('" +
accno2 + "', '" + date + "', 'withdrawal',"
                                + " '" + amount
+ "', '" + balance1 + "')";

stmt1.executeUpdate(sql2);

System.out.println("Inserted records into
the table...");
                } else {
                    System.out.println("Not
sufficient balance ... Please Check your
balance first");
                }
            }

        } //handles error for JDBC
        catch (SQLException se) {
            se.printStackTrace();
        }
        System.out.println("Transaction
Successfully done!");
    } //end of the transaction function
```

```
//printData() method definition starts here
    public static void printData() throws
SQLException {
        try {
            String sql5 = "select
a.account_no,a.name,a.age,a.address,t.date1,"
                    +
"t.trantype,t.amount,t.balance1 from
tbl_account a, "
                    + "tbl_transaction t
where a.account_no=t.account_no1 and
t.account_no1='"+accno+"'";
            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(sq
l5);//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) {
        }
    } //end of printdata() function
defination


//deleteAccount() function defination starts
here




    public static void deleteAccount() {
        try {
            Statement stmt4 = null;
            stmt4 =
connection.createStatement();
            Scanner sn = new
Scanner(System.in);
```

```
          String sqlacc = "SELECT name FROM
`tbl_account` WHERE account_no ='" + no +
"'";
            ResultSet rs =
connection.createStatement().executeQuery(sq
lacc);
            String name = null;
            while (rs.next()) {
                name = rs.getString("name");
            }

            String sql4 = "DELETE FROM
`tbl_transaction` WHERE account_no1='" + no +
"'";
            //execute query
            stmt4.executeUpdate(sql4);
            String sql5 = "DELETE FROM
`tbl_account` WHERE account_no='" + 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 of deleteAccount() function
}//end of class
```