Database Systems Lab - 14CS2012

REGISTER NO: UR14CS228

DATE: 17-10-2016

EXPERIMENT-NO 6

Video Link : https://youtu.be/vuTSnC__AOk

AIM:
Develop an application for a company to manage its order and supply details using JDBC connectivity

DESCRIPTION:
Class.forName("oracle.jdbc.driver.OracleDriver"); //Register the Driver Class

Connection con=DriverManager.getConnection(

"jdbc:oracle:thin:@localhost:1521:xe","system","password"); // Connection

Statement stmt=con.createStatement();

ResultSet rs=stmt.executeQuery("select * from emp");

Program:

```
import java.util.Scanner;
public class Company {

    public static void main(String[] args) {

        CompanyOperations coop = new CompanyOperations();

        Scanner scan = new Scanner(System.in);
        int choice;
        System.out.println("Database Operation:");
        System.out.println("Enter 1 for New Order");
        System.out.println("Enter 2 to Modify the order
details");
        System.out.println("Enter 3 to Delete from order
table");
```

```
        System.out.println("Enter 4 to Search supply details
based on Product Id");
        System.out.println("Enter your choice of operation");
        choice = scan.nextInt();

        switch (choice) {
            case 1: {
                coop.insertQuery();
                break;
            }
            case 2: {
                coop.modificationQuery();
                break;
            }
            case 3: {
                coop.deleteQuery();
                break;
            }
            case 4: {
                coop.search1();
                break;
            }
            default: {
                System.out.println("Enter Correct Choice
Please.");
            }

        }

    }
}
```

```
import java.sql.*;
import java.text.DateFormat;
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Arrays;
import java.util.Scanner;
import java.util.logging.Formatter;
import java.util.logging.Level;
import java.util.logging.Logger;


public class CompanyOperations {


    final String JDBC_Driver =
"oracle.jdbc.driver.OracleDriver";
    final String DB_URL =
"jdbc:oracle:thin:@localhost:1521:XE";
    final String USER = "system";
    final String PASSWORD = "fish";
    Connection conn = null;
    Statement statement = null;
    Scanner scan = new Scanner(System.in);



    void insertQuery() {
        try {
            try {
                Class.forName(JDBC_Driver);//REGISTERING THE
DRIVER
            } catch (ClassNotFoundException ex) {

Logger.getLogger(CompanyOperations.class.getName()).log(Level.
SEVERE, null, ex);
            }
            try {
                conn = DriverManager.getConnection(DB_URL,
USER, PASSWORD);// CONNECTION
```

```
            } catch (SQLException ex) {

Logger.getLogger(CompanyOperations.class.getName()).log(Level.
SEVERE, null, ex);
            }
            int order_id;
            int customer_id;
            String sql;
            System.out.println("Enter order id");
            order_id = scan.nextInt();
            System.out.println("Enter the order date('DD-MMM-
YYYY')");
            String order_date1 = scan.next();
            SimpleDateFormat df = new SimpleDateFormat("dd-
MMM-yyyy");
            java.util.Date order_date2 =
df.parse(order_date1);
            java.sql.Date order_date = new
java.sql.Date(order_date2.getTime());
            System.out.println("Enter the customer id");
            customer_id = scan.nextInt();
            sql = "insert into
order1(order_id,order_date,customer_id)" + "values(?,?,?)";
            PreparedStatement pstatement =
conn.prepareStatement(sql);
            pstatement.setInt(1, order_id);
            pstatement.setDate(2, order_date);
            pstatement.setInt(3, customer_id);
            pstatement.executeUpdate();
            System.out.println("New Row added!");
            pstatement.close();
            conn.close();
        } catch (ParseException | SQLException ex) {

System.out.println(Arrays.toString(ex.getStackTrace()));
            System.out.println(ex.getMessage());
        }
```

```
    }


    void modificationQuery() {
        try {
            Class.forName(JDBC_Driver);
            conn = DriverManager.getConnection(DB_URL, USER,
PASSWORD);
        } catch (ClassNotFoundException ex) {
            System.out.println("Its a"+ ex.getMessage());
        } catch (SQLException ex) {
            System.out.println(ex.getMessage());
        }


        System.out.println("Which column would you like to
update? Press 1 for Order Date or 2 for Customer Id");
        int choice = scan.nextInt();
        System.out.println("Enter the updatable order id");
        int order_id = scan.nextInt();



        if(choice==1){
            try {
                System.out.println("Enter the new Date('DD-
MMM-YYYY')");
                String order_date1 = scan.next();
                SimpleDateFormat df = new
SimpleDateFormat("dd-MMM-yyyy");
                java.util.Date order_date2 =
df.parse(order_date1);
                java.sql.Date order_date = new
java.sql.Date(order_date2.getTime());
                String sql = "UPDATE order1 SET order_date = ?
WHERE order_id = ?";
                PreparedStatement pstatement =
conn.prepareStatement(sql);
                pstatement.setDate(1,order_date);
```

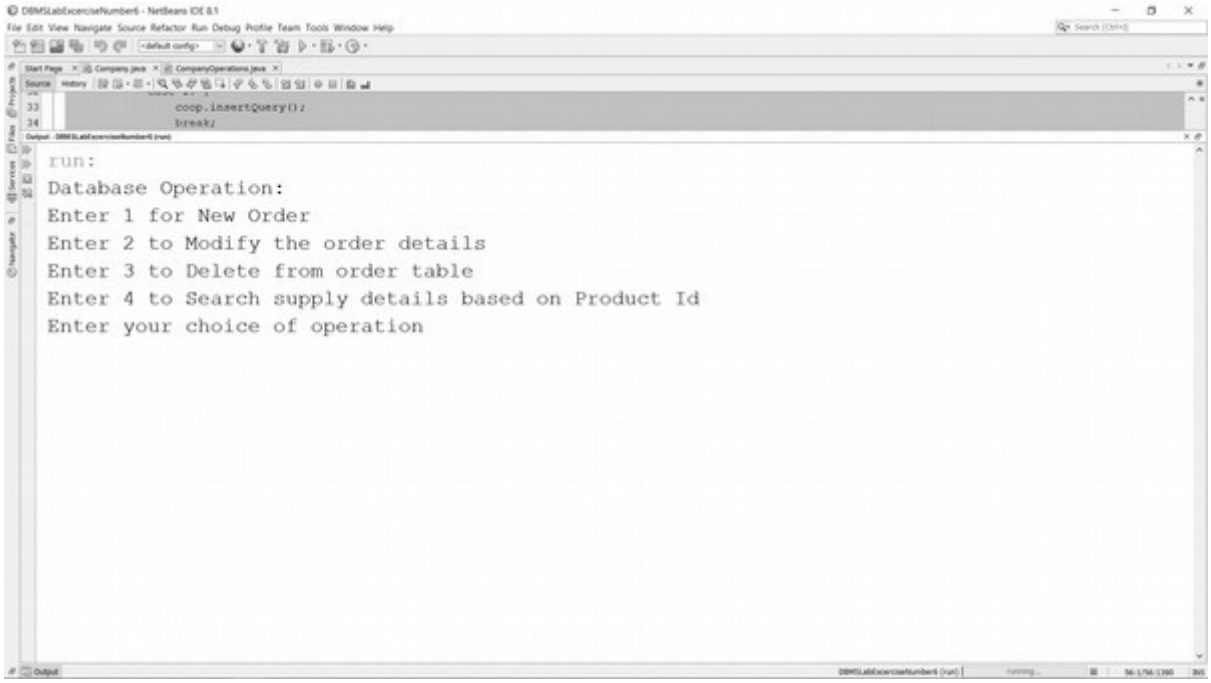
```
                pstatement.setInt(2,order_id);
                pstatement.executeUpdate();
                pstatement.close();
                conn.close();
            } catch (ParseException ex) {

Logger.getLogger(CompanyOperations.class.getName()).log(Level.
SEVERE, null, ex);
            } catch (SQLException ex) {

Logger.getLogger(CompanyOperations.class.getName()).log(Level.
SEVERE, null, ex);
            }
        }
        else{
            try {
                System.out.println("Enter the customer Id");
                int customer_id = scan.nextInt();
                String sql = "UPDATE order1 SET customer_id
= ? WHERE order_id = ?";
                PreparedStatement pstatement =
conn.prepareStatement(sql);
                pstatement.setInt(1,customer_id);
                pstatement.setInt(2,order_id);
                pstatement.executeUpdate();
                pstatement.close();
                conn.close();
            } catch (SQLException ex) {

Logger.getLogger(CompanyOperations.class.getName()).log(Level.
SEVERE, null, ex);
            }
        }
```

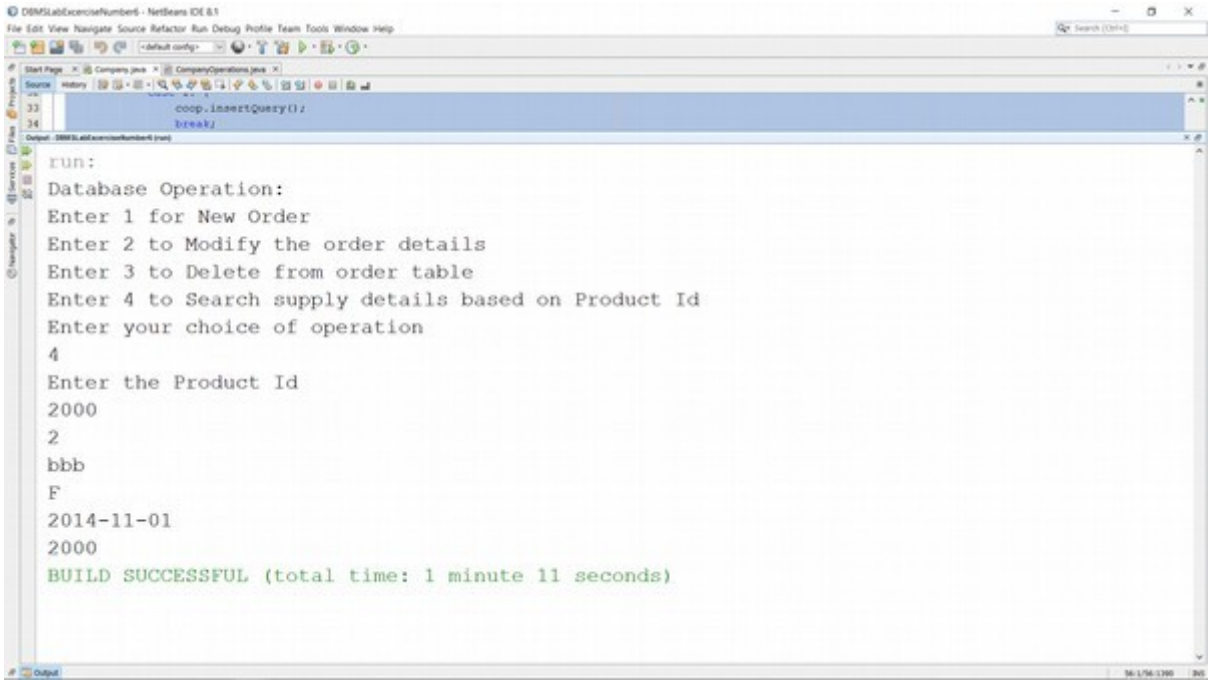
```
    }


    void deleteQuery() {
        try {
            try {
                Class.forName(JDBC_Driver);
                conn = DriverManager.getConnection(DB_URL,
USER, PASSWORD);
            } catch (ClassNotFoundException ex) {

Logger.getLogger(CompanyOperations.class.getName()).log(Level.
SEVERE, null, ex);
            } catch (SQLException ex) {

Logger.getLogger(CompanyOperations.class.getName()).log(Level.
SEVERE, null, ex);
            }
            System.out.println("Enter the order id to be
deleted");
            int order_id = scan.nextInt();
            String sql = "DELETE FROM order1 WHERE order_id
= ?";
            PreparedStatement pstatement =
conn.prepareStatement(sql);
            pstatement.setInt(1, order_id);
            pstatement.executeUpdate();
            pstatement.close();
            conn.close();


        } catch (SQLException ex) {

Logger.getLogger(CompanyOperations.class.getName()).log(Level.
SEVERE, null, ex);
        }
    }



    void search1(){
```

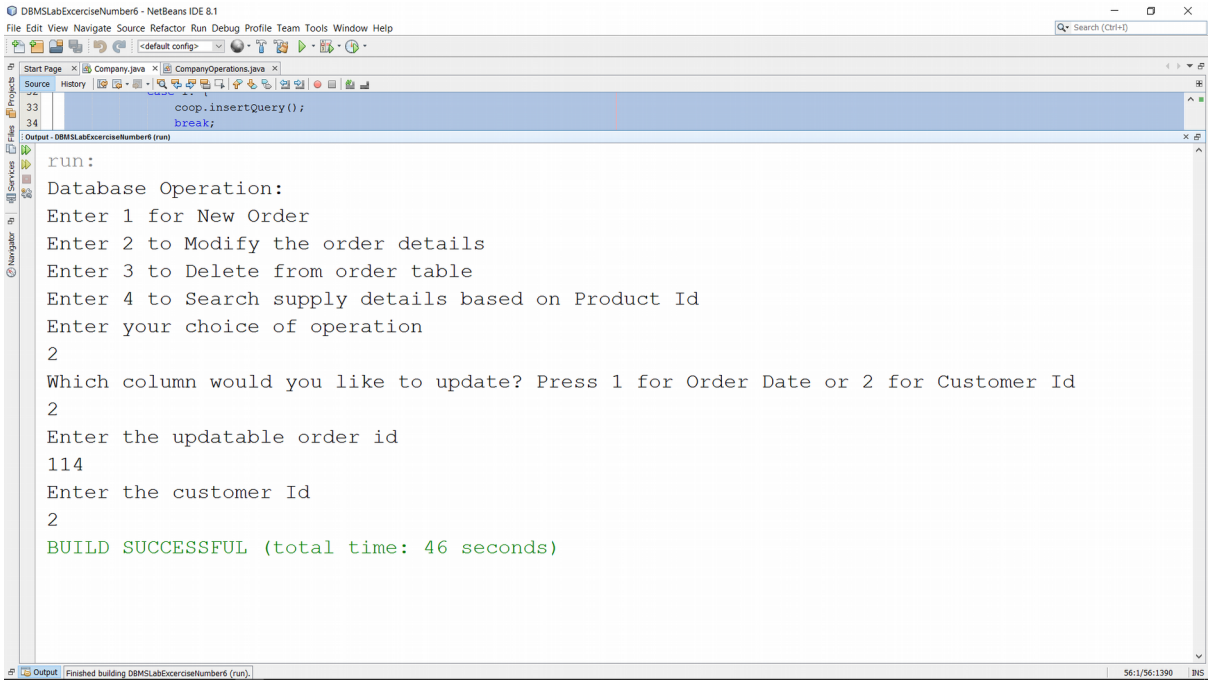
```
          try {
             int p_id1;
          try {
                 Class.forName(JDBC_Driver);
                 conn = DriverManager.getConnection(DB_URL,
USER, PASSWORD);
             } catch (ClassNotFoundException ex) {

Logger.getLogger(CompanyOperations.class.getName()).log(Level.
SEVERE, null, ex);
             } catch (SQLException ex) {

Logger.getLogger(CompanyOperations.class.getName()).log(Level.
SEVERE, null, ex);
             }
             System.out.println("Enter the Product Id");
             p_id1 = scan.nextInt();
             String p_id = Integer.toString(p_id1);


             String sql;
             sql = "SELECT * FROM supplier WHERE p_id = " +
p_id;
             Statement pstatement = conn.createStatement();
             ResultSet rs = pstatement.executeQuery(sql);
             while(rs.next()){
                 int s_id = rs.getInt("s_id");
                 String s_name = rs.getString("s_name");
                 String gender = rs.getString("gender");
                 Date s_date = rs.getDate("s_date");
                 int p_id20= rs.getInt("p_id");
                 System.out.println(s_id);
                 System.out.println(s_name);
                 System.out.println(gender);
                 System.out.println(s_date);
                 System.out.println(p_id20);
             }
```

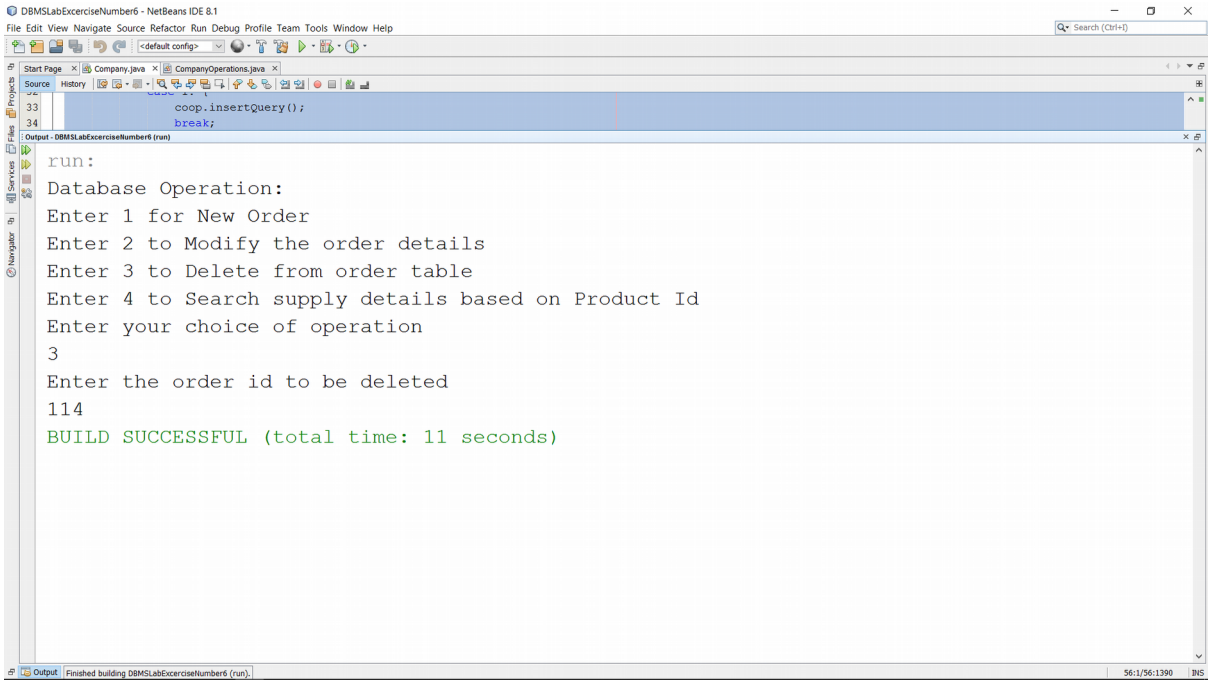
```
            rs.close();
            pstatement.close();
            conn.close();
        } catch (SQLException ex) {

Logger.getLogger(CompanyOperations.class.getName()).log(Level.
SEVERE, null, ex);
        }
    }
}
```

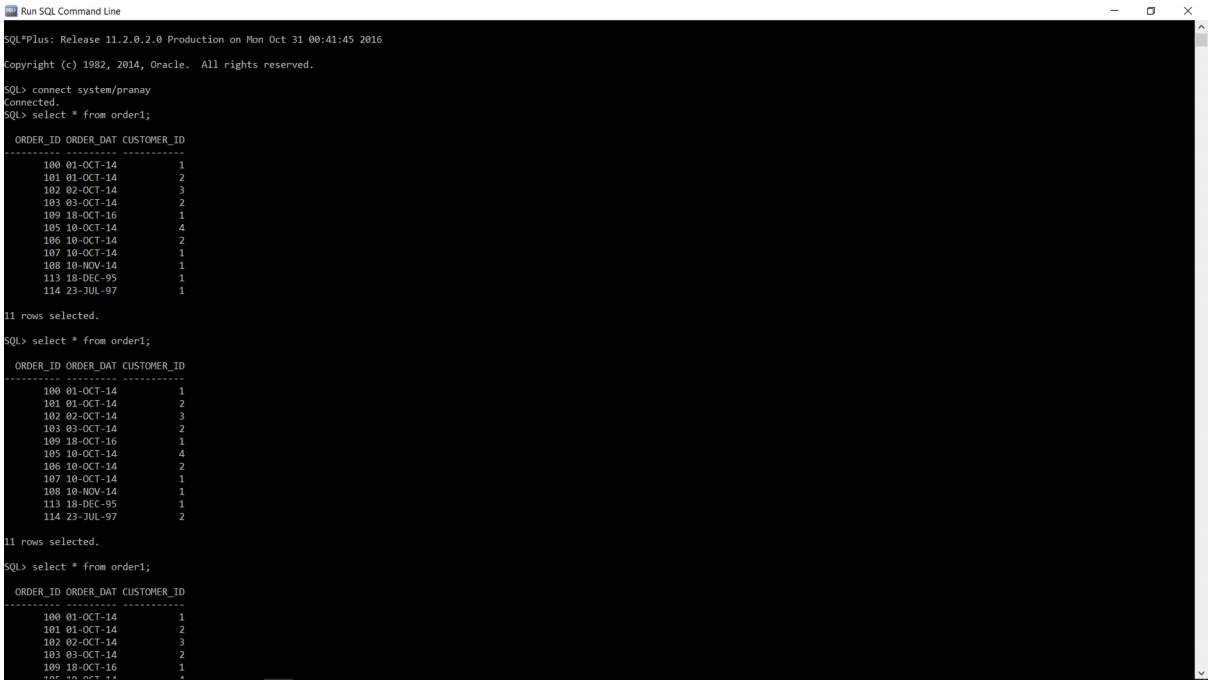
Output:

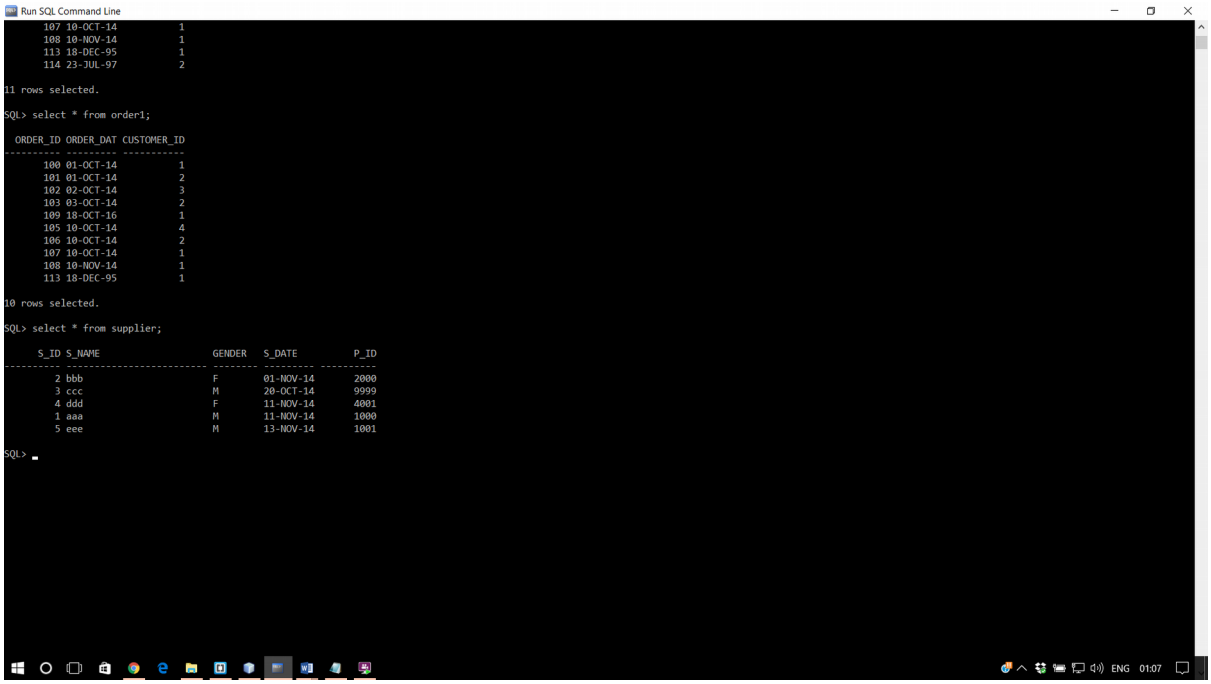



coop.insertQuery();
break;
run:
Database Operation:
Enter 1 for New Order
Enter 2 to Modify the order details
Enter 3 to Delete from order table
Enter 4 to Search supply details based on Product Id
Enter your choice of operation
4
Enter the Product Id
2000
2
bbb
F
2014-11-01
2000
BUILD SUCCESSFUL (total time: 1 minute 11 seconds)


DBMSLabExcerciseNumber6 - NetBeans IDE 8.1
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Start Page
Company.java
CompanyOperations.java
Source
History
coop.insertQuery();
break;
Output - DBMSLabExcerciseNumber6 (run)
run:
Database Operation:
Enter 1 for New Order
Enter 2 to Modify the order details
Enter 3 to Delete from order table
Enter 4 to Search supply details based on Product Id
Enter your choice of operation
2
Which column would you like to update? Press 1 for Order Date or 2 for Customer Id
2
Enter the updatable order id
114
Enter the customer Id
2
BUILD SUCCESSFUL (total time: 46 seconds)
Output
Finished building DBMSLabExcerciseNumber6 (run).
56:1/56:1390
INS


DBMSLabExcerciseNumber6 - NetBeans IDE 8.1
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Start Page
Company.java
CompanyOperations.java
Source
History
33 coop.insertQuery();
34 break;
Output - DBMSLabExcerciseNumber6 (run)
run:
Database Operation:
Enter 1 for New Order
Enter 2 to Modify the order details
Enter 3 to Delete from order table
Enter 4 to Search supply details based on Product Id
Enter your choice of operation
3
Enter the order id to be deleted
114
BUILD SUCCESSFUL (total time: 11 seconds)
Output
Finished building DBMSLabExcerciseNumber6 (run).
56:1/56:1390
INS


Run SQL Command Line
SQL*Plus: Release 11.2.0.2.0 Production on Mon Oct 31 00:41:45 2016
Copyright (c) 1982, 2014, Oracle. All rights reserved.
SQL> connect system/pranay
Connected.
SQL> select * from order1;
ORDER_ID ORDER_DAT CUSTOMER_ID
100 01-OCT-14 1
101 01-OCT-14 2
102 02-OCT-14 3
103 03-OCT-14 2
109 18-OCT-16 1
105 10-OCT-14 4
106 10-OCT-14 2
107 10-OCT-14 1
108 10-NOV-14 1
113 18-DEC-95 1
114 23-JUL-97 1
11 rows selected.
SQL> select * from order1;
ORDER_ID ORDER_DAT CUSTOMER_ID
100 01-OCT-14 1
101 01-OCT-14 2
102 02-OCT-14 3
103 03-OCT-14 2
109 18-OCT-16 1
105 10-OCT-14 4
106 10-OCT-14 2
107 10-OCT-14 1
108 10-NOV-14 1
113 18-DEC-95 1
114 23-JUL-97 2
11 rows selected.
SQL> select * from order1;
ORDER_ID ORDER_DAT CUSTOMER_ID
100 01-OCT-14 1
101 01-OCT-14 2
102 02-OCT-14 3
103 03-OCT-14 2
109 18-OCT-16 1



Result:

Application Development using JDBC Connectivity was successfully completed.