

**Dt : 29/1/2025**

**Program : DBCon12.java**

**package test;**

**import java.sql.\*;**

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

**public class DBCon12 {**

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

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

**try(s){**

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

**Connection con = DriverManager.getConnection**

**("jdbc:oracle:thin:@localhost:1521:xe", "system", "tiger");**

**Statement stm = con.createStatement();**

**System.out.println("-----Add Customer to Customer70-----");**

**System.out.println("Enter the Cust-No:");**

**int cId = Integer.parseInt(s.nextLine());**

**System.out.println("Enter the Cust-Name:");**

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

**System.out.println("Enter the Cust-City:");**

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

**System.out.println("Enter the Cust-Mailld:");**

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

**System.out.println("Enter the Cust-PhNo:");**

**long phNo = Long.parseLong(s.nextLine());**

**stm.addBatch**

**("insert into Customer70 values("+cId+", '"+cName+"', '"+cCity+"', '"+mId+"', '"+phNo+"')");**

**System.out.println("-----Update operation on Product70-----");**

**System.out.println("Enter the Prod-Code to update price and qty:");**

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

**System.out.println("Enter the NewPrice for Product:");**

**float price = Float.parseFloat(s.nextLine());**

**System.out.println("Enter the NewQty for Product:");**

**int qty = Integer.parseInt(s.nextLine());**

**stm.addBatch**

**("update Product70 set price="+price+", qty="+qty+" where code='"+pCode+"'");**

**int k[] = stm.executeBatch();**

**for(int i : k)**

**{**

**System.out.println("Query executed : "+i);**

**//end of loop**

**stm.clearBatch();**

**con.close();**

**}catch(Exception e) {**

**e.printStackTrace();**

**}**

}

}

*o/p:*

*-----Add Customer to Customer70-----*

*Enter the Cust-No:*

**6666**

*Enter the Cust-Name:*

**DEPT**

*Enter the Cust-City:*

**Hyd**

*Enter the Cust-MailId:*

**d@gmail.com**

*Enter the Cust-PhNo:*

**7675431234**

*-----Update operation on Product70-----*

*Enter the Prod-Code to update price and qty:*

**F34**

*Enter the NewPrice for Product:*

**1500**

*Enter the NewQty for Product:*

**30**

**Query executed : 1**

**Query executed : 1**

-----  
**define MetaData?**

=>The data which is holding information about other data is known as *MetaData*.

=>According to JDBC, Object holding information about other object is known as *MetaData Object*.

=>The following components in JDBC generate *MetaData Objects*:

1. *DatabaseMetaData*

2. *ParameterMetaData*

3. *ResultSetMetaData*

#### 1. *DatabaseMetaData*:

=>*DatabaseMetaData* is an interface from *java.sql* and which is instantiated to hold the information about *Connection-object*.

=>we use *getMetaData()*-method from '*Connection*' to create implementation object for *DatabaseMetaData*.

*Method Signature*:

*public abstract java.sql.DatabaseMetaData getMetaData() throws java.sql.SQLException;*

*syntax*:

*DatabaseMetaData dmd = con.getMetaData();*

#### 2. *ParameterMetaData*:

=>*ParameterMetaData* is an interface from *java.sql* package and which is instantiated to hold information about *PreparedStatement-Object*.

=>we use *getParameterMetaData()*-method from *PreparedStatement* to create implementation Object for *ParameterMetaData*.

*Method Signature*:

*public abstract java.sql.ParameterMetaData getParameterMetaData()*

*throws java.sql.SQLException;*

**syntax:**

***ParameterMetaData pmd = ps.getParameterMetaData();***

**\*Imp**

### **3.ResultSetMetaData:**

**=>ResultSetMetaData is an interface from java.sql package and which is instantiated to hold information about ResultSet-Object**

**=>we use getMetaData()-method from ResultSet to create implementation object for ResultSetMetaData.**

**Method Signature:**

***public abstract java.sql.ResultSetMetaData getMetaData() throws java.sql.SQLException;***

**syntax:**

***ResultSetMetaData rsmd = rs.getMetaData();***

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**Program : DBCon13.java**

```
package test;
import java.sql.*;
public class DBCon13 {
    public static void main(String[] args) {
        try {
            Class.forName("oracle.jdbc.driver.OracleDriver");
            Connection con = DriverManager.getConnection
("jdbc:oracle:thin:@localhost:1521:xe", "system", "tiger");
            System.out.println("*****DatabaseMetaData*****");
            DatabaseMetaData dmd = con.getMetaData();
            System.out.println("DB Name :
"+dmd.getDatabaseProductName());
            System.out.println("DB Version :
"+dmd.getDatabaseProductVersion());
            System.out.println("DB driver : "+dmd.getDriverName());
        }catch(Exception e) {
            e.printStackTrace();
        }
    }
}
```

```
}  
}  
}
```

***o/p:***

***\*\*\*\*\*DatabaseMetaData\*\*\*\*\****

***DB Name : Oracle***

***DB Version : Oracle Database 11g Express Edition Release 11.2.0.2.0 - 64bit Production***

***DB driver : Oracle JDBC driver***

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