Day 14 (JDBC Task 02)

DBCon.java

```java
package com.wipro.jdbc.util;

import java.sql.*;


public class DBCon {
	public static Connection getConnection() throws
SQLSyntaxErrorException,SQLException,ClassNotFoundException {

		Class.forName("oracle.jdbc.OracleDriver");
		Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:9501/XE","system","rps@12
3");
		return con;
	}
}
```

ProductClient.java

```java
package com.wipro.jdbc.client;
import java.sql.*;
import com.wipro.jdbc.model.*;
import com.wipro.jdbc.service.*;
import com.wipro.jdbc.util.*;

public class ProductClient {

	public static void main(String[] args) throws
SQLSyntaxErrorException,SQLException,ClassNotFoundException{
		ProductService ps=new ProductServiceImpl();

		//inserting
//		ps.insertproduct(new Product(3,"SmartTV",25000));
//		ps.insertproduct(new Product(4,"SmartWatch",15000));
//		ps.insertproduct(new Product(5,"Tab",10000));
		//deleting
//		ps.deleteproduct(5);
		//updating
//		ps.updateproduct(4, new Product(4,"SmartWatch", 10000));
		//listing
//		ps.ProductList().stream().forEach(e->System.out.println(e));
```

```
        }
}




```

Product.java

```java
package com.wipro.jdbc.model;

public class Product {
        Integer product_id;
        String product_name;
        Integer price;

        public Product(){

        }
        public Product(Integer product_id, String product_name, Integer price) {
                super();
                this.product_id = product_id;
                this.product_name = product_name;
                this.price = price;
        }
        public int getId() {
                return product_id;
        }
        public void setId(Integer product_id) {
                this.product_id = product_id;
        }
        public String getname() {
                return product_name;
        }
        public void setname(String product_name) {
                this.product_name = product_name;
        }
        public int getprice() {
                return price;
        }
        public void setprice(Integer price) {
                this.price = price;
        }
        @Override
        public String toString() {
                return "Products [ Product Id = " +product_id + ", Product Name = "
+product_name+", Price = "+price+" ]";
        }
}
```

ProductService.java

```java
package com.wipro.jdbc.service;
import java.sql.*;
import java.util.List;

import com.wipro.jdbc.model.Product;

public interface ProductService {
        void insertproduct(Product p) throws
SQLSyntaxErrorException,SQLException,ClassNotFoundException;
        void updateproduct(Integer product_id, Product p) throws
SQLSyntaxErrorException,SQLException,ClassNotFoundException;
        void deleteproduct(Integer product_id) throws
SQLSyntaxErrorException,SQLException,ClassNotFoundException;
    List <Product> ProductList() throws
SQLSyntaxErrorException,SQLException,ClassNotFoundException;
    Product getproducts(Integer product_id) throws
SQLSyntaxErrorException,SQLException,ClassNotFoundException;
}
```

ProductServiceImpl.java

```java
package com.wipro.jdbc.service;
import com.wipro.jdbc.model.*;
import com.wipro.jdbc.util.*;

import java.sql.*;
import java.util.ArrayList;
import java.util.List;


public class ProductServiceImpl implements ProductService{

        @Override
        public void insertproduct(Product p) throws SQLSyntaxErrorException,
SQLException, ClassNotFoundException {
                PreparedStatement pst=DBCon.getConnection().prepareStatement("insert
into Product values(?,?,?)");
                pst.setInt(1,p.getId());
                pst.setString(2,p.getname());
                pst.setInt(3,p.getprice());
                pst.execute();
                System.out.println("Inserted Successfully");
        }
        @Override
        public void deleteproduct(Integer product_id) throws SQLSyntaxErrorException,
SQLException, ClassNotFoundException {
```

```java
            PreparedStatement pst=DBCon.getConnection().prepareStatement("delete
from Product where product_id=?");
            pst.setInt(1,product_id);
            pst.execute();

            System.out.println("Deleted Successfully");

    }

    @Override
    public void updateproduct(Integer product_id, Product p) throws
SQLSyntaxErrorException, SQLException, ClassNotFoundException {
            Connection con=DBCon.getConnection();
            con.setAutoCommit(false);
            try {
            PreparedStatement pst=con.prepareStatement("update  Product
product_name=?,price=? where product_id=?");
            pst.setInt(3,product_id);
            pst.setString(2, p.getname());
            pst.setInt(3, p.getprice());
            pst.execute();
            }
            catch(Exception e) {
                    con.rollback();
            }
            con.commit();

            System.out.println("Updated");

    }

    @Override
    public List <Product> ProductList() throws
SQLSyntaxErrorException,SQLException,ClassNotFoundException{
            Statement
st=DBCon.getConnection().createStatement(ResultSet.TYPE_SCROLL_INSENSITIVE,
ResultSet.CONCUR_UPDATABLE);
            ResultSet rs=st.executeQuery("select * from Product");
            List<Product> plist=new ArrayList<>();
            while(rs.next()) {

                    Product p=new Product();
                    p.setId(rs.getInt(1));
                    p.setname(rs.getString(2));
                    p.setprice(rs.getInt(3));
                    plist.add(p);
            }
            return plist;
```

```java
        }

        @Override
        public Product getproducts(Integer product_id) throws
SQLSyntaxErrorException,SQLException,ClassNotFoundException{
                PreparedStatement st=DBCon.getConnection().prepareStatement("select *
from Product where product_id=?");
                st.setInt(1, product_id);

                ResultSet rs=st.executeQuery();
                Product p=new Product();

                while(rs.next()) {
                        p.setId(rs.getInt(1));
                        p.setname(rs.getString(2));
                        p.setprice(rs.getInt(3));
                }

                return p;
        }
}
```