

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.Scanner;

public class ProductCRUD {
    private static final String URL =
"jdbc:mysql://localhost:3306/
your_database";
    private static final String USER =
"your_username";
    private static final String PASSWORD =
"your_password";

    public static void main(String[] args) {
        try (Connection conn =
DriverManager.getConnection(URL, USER,
PASSWORD);
```

```
Scanner scanner = new
Scanner(System.in)) {

    while (true) {
        System.out.println("\n1.
Insert\n2. View\n3. Update\n4. Delete\n5.
Exit");
        int choice = scanner.nextInt();

        switch (choice) {
            case 1 -> insertProduct(conn,
scanner);
            case 2 -> viewProducts(conn);
            case 3 -> updateProduct(conn,
scanner);
            case 4 -> deleteProduct(conn,
scanner);
            case 5 -> System.exit(0);
        }
    }
} catch (SQLException e) {
```

```
        e.printStackTrace();
    }
}
```

```
private static void
insertProduct(Connection conn, Scanner
scanner) throws SQLException {
    System.out.print("Enter Name: ");
    String name = scanner.next();
    System.out.print("Enter Price: ");
    double price = scanner.nextDouble();
    System.out.print("Enter Quantity: ");
    int quantity = scanner.nextInt();

    String sql = "INSERT INTO Product
(ProductName, Price, Quantity) VALUES (?,
?, ?)";

    try (PreparedStatement pstmt =
conn.prepareStatement(sql)) {
        conn.setAutoCommit(false);
        pstmt.setString(1, name);
```

```
        pstmt.setDouble(2, price);
        pstmt.setInt(3, quantity);
        pstmt.executeUpdate();
        conn.commit();
    } catch (SQLException e) {
        conn.rollback();
        e.printStackTrace();
    }
}
```

```
private static void
viewProducts(Connection conn) throws
SQLException {
    String sql = "SELECT * FROM Product";
    try (Statement stmt =
conn.createStatement();
        ResultSet rs =
stmt.executeQuery(sql)) {
        while (rs.next()) {

System.out.println(rs.getInt("ProductID") +
```

```
" | " + rs.getString("ProductName") + " | " +  
        rs.getDouble("Price") + " | " +  
rs.getInt("Quantity"));  
    }  
}  
}
```

```
private static void  
updateProduct(Connection conn, Scanner  
scanner) throws SQLException {  
    System.out.print("Enter Product ID to  
update: ");  
    int id = scanner.nextInt();  
    System.out.print("Enter new Price: ");  
    double price = scanner.nextDouble();  
    System.out.print("Enter new Quantity:  
");  
    int quantity = scanner.nextInt();  
  
    String sql = "UPDATE Product SET  
Price = ?, Quantity = ? WHERE ProductID =
```

?";

```
try (PreparedStatement pstmt =  
conn.prepareStatement(sql)) {  
    conn.setAutoCommit(false);  
    pstmt.setDouble(1, price);  
    pstmt.setInt(2, quantity);  
    pstmt.setInt(3, id);  
    pstmt.executeUpdate();  
    conn.commit();  
} catch (SQLException e) {  
    conn.rollback();  
    e.printStackTrace();  
}  
}
```

```
private static void  
deleteProduct(Connection conn, Scanner  
scanner) throws SQLException {  
    System.out.print("Enter Product ID to  
delete: ");  
    int id = scanner.nextInt();
```

```
String sql = "DELETE FROM Product  
WHERE ProductID = ?";
```

```
try (PreparedStatement pstmt =  
conn.prepareStatement(sql)) {  
    conn.setAutoCommit(false);  
    pstmt.setInt(1, id);  
    pstmt.executeUpdate();  
    conn.commit();  
} catch (SQLException e) {  
    conn.rollback();  
    e.printStackTrace();  
}  
}  
}
```