

```

<?xml version="1.0" encoding="UTF-8"?>

<project xmlns="http://maven.apache.org/POM/4.0.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
http://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>

  <groupId>0</groupId>
  <artifactId>AddProduct</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <packaging>war</packaging>

  <name>AddProduct Maven Webapp</name>
  <!-- FIXME change it to the project's website -->
  <url>http://www.example.com</url>

  <properties>
    <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
    <maven.compiler.source>1.7</maven.compiler.source>
    <maven.compiler.target>1.7</maven.compiler.target>
  </properties>

  <dependencies>
    <dependency>
      <groupId>junit</groupId>
      <artifactId>junit</artifactId>
      <version>4.11</version>
      <scope>test</scope>
    </dependency>
    <!-- https://mvnrepository.com/artifact/javax.servlet/javax.servlet-api -->
  <dependency>
    <groupId>javax.servlet</groupId>
    <artifactId>javax.servlet-api</artifactId>
    <version>4.0.1</version>
    <scope>provided</scope>
  </dependency>
  <!-- https://mvnrepository.com/artifact/org.hibernate/hibernate-core -->
  <dependency>
    <groupId>org.hibernate</groupId>
    <artifactId>hibernate-core</artifactId>
    <version>5.4.28.Final</version>
  </dependency>
  <!-- https://mvnrepository.com/artifact/org.ow2.asm/asm -->
  <dependency>
    <groupId>org.ow2.asm</groupId>
    <artifactId>asm</artifactId>
    <version>9.1</version>
  </dependency>
  <!-- https://mvnrepository.com/artifact/mysql/mysql-connector-java -->
  <dependency>
    <groupId>mysql</groupId>
    <artifactId>mysql-connector-java</artifactId>
    <version>8.0.23</version>
  </dependency>

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<!-- https://mvnrepository.com/artifact/javax.persistence/persistence-api -->
<dependency>
    <groupId>javax.persistence</groupId>
    <artifactId>persistence-api</artifactId>
    <version>1.0.2</version>
</dependency>
<!-- https://mvnrepository.com/artifact/javax.transaction/jta -->
<dependency>
    <groupId>javax.transaction</groupId>
    <artifactId>jta</artifactId>
    <version>1.1</version>
</dependency>
<!-- https://mvnrepository.com/artifact/com.sun.xml.bind/jaxb-osi -->
<dependency>
    <groupId>com.sun.xml.bind</groupId>
    <artifactId>jaxb-osi</artifactId>
    <version>3.0.0</version>
</dependency>
<!-- https://mvnrepository.com/artifact/javax.xml.bind/jaxb-api -->
<dependency>
    <groupId>javax.xml.bind</groupId>
    <artifactId>jaxb-api</artifactId>
    <version>2.4.0-b180830.0359</version>
</dependency>

<!-- https://mvnrepository.com/artifact/cglib/cglib -->
<dependency>
    <groupId>cglib</groupId>
    <artifactId>cglib</artifactId>
    <version>3.3.0</version>
</dependency>
</dependencies>

<build>
    <finalName>AddProduct</finalName>
    <pluginManagement><!-- lock down plugins versions to avoid using Maven defaults
(may be moved to parent pom) -->
    <plugins>
        <plugin>
            <artifactId>maven-clean-plugin</artifactId>
            <version>3.1.0</version>
        </plugin>
        <!-- see http://maven.apache.org/ref/current/maven-core/default-
bindings.html#Plugin_bindings_for_war_packaging -->
        <plugin>
            <artifactId>maven-resources-plugin</artifactId>
            <version>3.0.2</version>
        </plugin>
        <plugin>
            <artifactId>maven-compiler-plugin</artifactId>
            <version>3.8.0</version>
        </plugin>
        <plugin>
            <artifactId>maven-surefire-plugin</artifactId>
            <version>2.22.1</version>

```

```
</plugin>
<plugin>
  <artifactId>maven-war-plugin</artifactId>
  <version>3.2.2</version>
</plugin>
<plugin>
  <artifactId>maven-install-plugin</artifactId>
  <version>2.5.2</version>
</plugin>
<plugin>
  <artifactId>maven-deploy-plugin</artifactId>
  <version>2.8.2</version>
</plugin>
</plugins>
</pluginManagement>
</build>
</project>
```

```
<html>
<body>
<h2>Add a Product</h2>
```

```
<form action="/AddProduct/product" method="post">
  Name: <input type="text" id="name" placeholder="Name" name="name" required>
<br><br>
  Color: <input type="text" id="color" placeholder="Color" name="color" required>
<br><br>
  Price(enter a number): <input type="text" id="price" placeholder="Price"
name="price" required> <br><br>

  <button type="submit">Enter</button>
</form>

</body>
</html>
```

```

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.Statement;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 * Servlet implementation class AddProduct
 */
public class AddProduct extends HttpServlet {
    private static final long serialVersionUID = 1L;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public AddProduct() {
        super();
        // TODO Auto-generated constructor stub
    }

    /**
     * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse
response)
     */
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
throws ServletException, IOException {
        // TODO Auto-generated method stub

        //get all the values from the form
        String name = request.getParameter("name");
        String color = request.getParameter("color");
        String price = request.getParameter("price");
        response.getWriter().println("<h2>Added!</h2><br>");
        response.getWriter().println("Added " + color + " " + name + " to the
database");

        double priceval = 0;
        //check if the input for price is valid
        try
        {
            priceval = Double.parseDouble(price);
        }
        //not valid so set it to hard coded value
        catch (NumberFormatException e)
        {
            priceval = 500.00;

```

```

    }
    //add to database
    try
    {
        PrintWriter out = response.getWriter();

        out.println("<br><br>");
        out.println("<h3>Database</h3>");
        out.println("<br>");

        //create connection to server
        Class.forName("com.mysql.jdbc.Driver");
        Connection conn =
DriverManager.getConnection("jdbc:mysql://localhost:3306/", "root", "root");
        Statement st=conn.createStatement();
        //select product database from before
        st.executeUpdate("use pets");
        int n=st.executeUpdate("insert into
pets.product(name,color,price)values('"+name+"', '"+color+"', '"+priceval+"')");

        //sql query
        ResultSet rs = st.executeQuery("select * from pets.product");

        ResultSetMetaData md = rs.getMetaData();
        int cols = md.getColumnCount();

        //print out product table

        while (rs.next())
        {
            for(int i = 1 ; i <= cols; i++)
            {
                out.print(rs.getString(i) + " ");
            }
            out.println("<br><br>");
        }
    }
    catch(Exception e)
    {
        System.out.print(e);
        e.printStackTrace();
    }
}

/**
 * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse
response)
 */
protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
    // TODO Auto-generated method stub
    doGet(request, response);
}
}

```



```
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://java.sun.com/xml/ns/javaee"
xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd" id="WebApp_ID" version="2.5">

    <display-name> HibernateConfig </display-name>
    <welcome-file-list>
        <welcome-file>index.html</welcome-file>
        <welcome-file>index.htm</welcome-file>
        <welcome-file>index.jsp</welcome-file>
        <welcome-file>default.html</welcome-file>
        <welcome-file>default.htm</welcome-file>
        <welcome-file>default.jsp</welcome-file>
    </welcome-file-list>
    <servlet>
        <description></description>
        <display-name>AddProduct</display-name>
        <servlet-name>AddProduct</servlet-name>
        <servlet-class>AddProduct</servlet-class>
    </servlet>
    <servlet-mapping>
        <servlet-name>AddProduct</servlet-name>
        <url-pattern>/product</url-pattern>
    </servlet-mapping>
</web-app>
```



```
package com.example;
```

```
import org.hibernate.SessionFactory;
```

```
import org.hibernate.boot.Metadata;
```

```
import org.hibernate.boot.MetadataSources;
```

```
import org.hibernate.boot.registry.StandardServiceRegistry;
```

```
import org.hibernate.boot.registry.StandardServiceRegistryBuilder;
```

```
public class HibernateUtil {
```

```
    private static final SessionFactory sessionFactory;
```

```
    static {
```

```
        try {
```

```
            StandardServiceRegistry standardRegistry = new StandardServiceRegistryBuilder()
```

```
                .configure("hibernate.cfg.xml").build();
```

```
            Metadata metaData = new MetadataSources(standardRegistry).getMetadataBuilder().build();
```

```
            sessionFactory = metaData.getSessionFactoryBuilder().build();
```

```
        } catch (Throwable th) {
```

```
            throw new ExceptionInInitializerError(th);
```

```
        }
```

```
    }
```

```
    public static SessionFactory getSessionFactory() {
```

```
        return sessionFactory;
```

}

}