

Searching for a Specific User and Updating the User Information

SOURCE CODE:

UserDao.java

```
public interface UserDao {  
    User getUserById(int userId);  
    void updateUser(User user);  
}
```

HibernateUserDao.java

@Repository

```
public class HibernateUserDao implements UserDao {  
    @Autowired  
    private SessionFactory sessionFactory;  
  
    @Override  
    public User getUserById(int userId) {  
        Session session = sessionFactory.getCurrentSession();  
        return session.get(User.class, userId);  
    }  
  
    @Override  
    public void updateUser(User user) {  
        Session session = sessionFactory.getCurrentSession();  
        session.update(user);  
    }  
}
```

UserService.java

```
public interface UserService {  
    User getUserById(int userId);  
    void updateUser(User user);  
}
```

ServiceImpl.java

```
@Service

public class UserServiceImpl implements UserService {

    @Autowired

    private UserDao userDao;


    @Override

    public User getUserById(int userId) {

        return userDao.getUserById(userId);

    }


    @Override

    public void updateUser(User user) {

        userDao.updateUser(user);

    }

}
```

UserController.java

```
@Controller

@RequestMapping("/user")

public class UserController {

    @Autowired

    private UserService userService;


    @GetMapping("/edit")

    public String showEditForm(@RequestParam("userId") int userId, Model model) {

        User user = userService.getUserById(userId);

        if (user == null) {

            // Handle invalid user ID

            return "errorPage";

        }

        model.addAttribute("user", user);

    }

}
```

```

        return "editUser";
    }

    @PostMapping("/update")
    public String updateUser(@ModelAttribute("user") User user) {
        userService.updateUser(user);
        return "confirmation";
    }
}

```

enterUserId.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8" %>
<!DOCTYPE html>
<html>
<head>
<title>Enter User ID</title>
</head>
<body>
<h1>Enter User ID:</h1>
<form action="{pageContext.request.contextPath}/user/edit" method="get">
<input type="number" name="userId" required>
<button type="submit">Edit</button>
</form>
</body>
</html>

```

editUser.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8" %>
<!DOCTYPE html>
<html>
<head>
<title>Edit User</title>
</head>

```

```

<body>

<h1>Edit User</h1>

<form action="{pageContext.request.contextPath}/user/update" method="post">

<input type="hidden" name="userId" value="{user.userId}">

<label>Username:</label>

<input type="text" name="username" value="{user.username}" required><br>

<label>Email:</label>

<input type="email" name="email" value="{user.email}" required><br>

<button type="submit">Update</button>

</form>

</body>

</html>

```

confirmation.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8" %>

<!DOCTYPE html>

<html>

<head>

<title>Update Confirmation</title>

</head>

<body>

<h1>Update Successful</h1>

<p>User details have been updated successfully.</p>

</body>

</html>

```

pom.xml

```

<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>com.example</groupId>
<artifactId>spring-mvc-hibernate-demo</artifactId>
<version>1.0.0</version>
<packaging>war</packaging>

<properties>
<spring.version>5.3.12.RELEASE</spring.version>
<hibernate.version>5.5.7.Final</hibernate.version>
<mysql-connector.version>8.0.27</mysql-connector.version>
<log4j.version>2.17.0</log4j.version>
<jstl.version>1.2</jstl.version>
</properties>

<dependencies>
<!-- Spring MVC -->
<dependency>
<groupId>org.springframework</groupId>
<artifactId>spring-webmvc</artifactId>
<version>${spring.version}</version>
</dependency>

<!-- Hibernate -->
<dependency>
<groupId>org.hibernate</groupId>
<artifactId>hibernate-core</artifactId>
<version>${hibernate.version}</version>
</dependency>

<!-- MySQL Connector -->
<dependency>
<groupId>mysql</groupId>
```

```
<artifactId>mysql-connector-java</artifactId>  
<version>${mysql-connector.version}</version>  
</dependency>
```

```
<!-- Log4j -->  
<dependency>  
<groupId>org.apache.logging.log4j</groupId>  
<artifactId>log4j-core</artifactId>  
<version>${log4j.version}</version>  
</dependency>
```

```
<!-- JSTL -->  
<dependency>  
<groupId>javax.servlet</groupId>  
<artifactId>jstl</artifactId>  
<version>${jstl.version}</version>  
</dependency>  
</dependencies>
```

```
<build>  
<plugins>  
<!-- Maven Compiler Plugin -->  
<plugin>  
<groupId>org.apache.maven.plugins</groupId>  
<artifactId>maven-compiler-plugin</artifactId>  
<version>3.8.1</version>  
<configuration>  
<source>1.8</source>  
<target>1.8</target>  
</configuration>  
</plugin>
```

```

<!-- Maven War Plugin -->

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-war-plugin</artifactId>

<version>3.3.1</version>

<configuration>

<warSourceDirectory>src/main/webapp</warSourceDirectory>

<failOnMissingWebXml>false</failOnMissingWebXml>

</configuration>

</plugin>

</plugins>

</build>

</project>

```

hibernate.cfg.xml

```

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

<!DOCTYPE hibernate-configuration PUBLIC

    "-//Hibernate/Hibernate Configuration DTD 3.0//EN"

    "http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd">

<hibernate-configuration>

<session-factory>

<property name="hibernate.connection.driver_class">com.mysql.jdbc.Driver</property>

<property name="hibernate.connection.url">jdbc:mysql://localhost:3306/studentdetail</property>

<property name="hibernate.connection.username">root</property>

<property name="hibernate.connection.password">Divya@112531</property>

<property name="hibernate.dialect">org.hibernate.dialect.MySQL8Dialect</property>

<property name="hibernate.current_session_context_class">thread</property>

<property name="hibernate.show_sql">true</property>

<property name="hibernate.format_sql">true</property>

</session-factory>

</hibernate-configuration>

```

dispatcher-servlet.xml

```
<beans xmlns="http://www.springframework.org/schema/beans"
       xmlns:context="http://www.springframework.org/schema/context"
       xmlns:mvc="http://www.springframework.org/schema/mvc"
       xsi:schemaLocation="http://www.springframework.org/schema/beans
                           http://www.springframework.org/schema/beans/spring-beans.xsd
                           http://www.springframework.org/schema/context
                           http://www.springframework.org/schema/context/spring-context.xsd
                           http://www.springframework.org/schema/mvc
                           http://www.springframework.org/schema/mvc/spring-mvc.xsd"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

    <!-- Enable component scanning for Spring MVC -->
    <context:component-scan base-package="com.example.controller" />

    <!-- Configure Spring MVC -->
    <mvc:annotation-driven />

    <!-- View resolver for JSP files -->
    <bean class="org.springframework.web.servlet.view.InternalResourceViewResolver">
        <property name="prefix" value="/WEB-INF/views/" />
        <property name="suffix" value=".jsp" />
    </bean>
</beans>
```

web.xml

```
<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_3_0.xsd"
         id="WebApp_ID" version="3.0">
```


<display-name>Spring MVC Hibernate Demo</display-name>

<servlet>

<servlet-name>dispatcher</servlet-name>

<servlet-class>org.springframework.web.servlet.DispatcherServlet</servlet-class>

<init-param>

<param-name>contextConfigLocation</param-name>

<param-value>/WEB-INF/dispatcher-servlet.xml</param-value>

</init-param>

<load-on-startup>1</load-on-startup>

</servlet>

<servlet-mapping>

<servlet-name>dispatcher</servlet-name>

<url-pattern>/</url-pattern>

</servlet-mapping>

</web-app>

log4j2.xml

<Configuration status="WARN">

<Appenders>

<Console name="ConsoleAppender" target="SYSTEM_OUT">

<PatternLayout pattern="%d{HH:mm:ss.SSS} [%t] %-5level %logger{36} - %msg%n" />

</Console>

</Appenders>

<Loggers>

<Root level="debug">

<AppenderRef ref="ConsoleAppender" />

</Root>

</Loggers>

</Configuration>