**SourceCode**

**UserManagerApplication.java**

package com.example.UserManager;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication

public class UserManagerApplication {

public static void main(String[] args) {

SpringApplication.run(UserManagerApplication.class, args);

}

}

**AppErrorController.java**

package com.example.UserManager.controller;

import org.springframework.boot.web.servlet.error.ErrorController;

import org.springframework.web.bind.annotation.RequestMapping;

public class AppErrorController implements ErrorController {

@RequestMapping("/error")

public String handleError() {

//do something like logging

return "error";

}

@Override

public String getErrorPath() {

return null;

}

}

**MainController.java**

package com.example.UserManager.controller;

import org.springframework.boot.web.servlet.error.ErrorController;

import org.springframework.web.bind.annotation.RequestMapping;

public class AppErrorController implements ErrorController {

@RequestMapping("/error")

public String handleError() {

//do something like logging

return "error";

}

@Override

public String getErrorPath() {

return null;

}

}

**UserController.java**

package com.example.UserManager.controller;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.stereotype.Controller;

import org.springframework.ui.ModelMap;

import org.springframework.web.bind.annotation.GetMapping;

import org.springframework.web.bind.annotation.ModelAttribute;

import org.springframework.web.bind.annotation.PostMapping;

import org.springframework.web.bind.annotation.RequestMapping;

import org.springframework.web.bind.annotation.RequestMethod;

import org.springframework.web.bind.annotation.RequestParam;

import com.example.UserManager.entities.User;

import com.example.UserManager.services.UserService;

@Controller

public class UserController {

//controls the functionality of the user entity

@Autowired

private UserService userService;

Logger logger = LoggerFactory.getLogger(UserController.class);

@GetMapping("/users")

public String showUsers(ModelMap model) {

logger.info("Getting all users");

Iterable<User> users = userService.GetAllUsers();

logger.info("Passing users to view");

model.addAttribute("users", users );

return "users";

}

@RequestMapping(value ="/search/{id}", method = RequestMethod.POST)

public String searchUser(ModelMap model, @RequestParam("id") int id) {

logger.info("Searching for a user");

User user = userService.GetUserById(id);

logger.info("Passing Searched User to View");

model.addAttribute("userSearch", user);

return "search";

}

@PostMapping("search/update")

public String updateUser(ModelMap model, @ModelAttribute("update") User user) {

logger.info("Updating a User");

userService.UpdateUser(user);

model.addAttribute("updatedUser", user);

return "update";

}

}

**UserExceptionController.java**

package com.example.UserManager.controller;

import org.springframework.http.HttpStatus;

import org.springframework.http.ResponseEntity;

import org.springframework.web.bind.annotation.ControllerAdvice;

import org.springframework.web.bind.annotation.ExceptionHandler;

import com.example.UserManager.exceptions.UserNotFoundException;

@ControllerAdvice

public class UserExceptionController {

@ExceptionHandler(value=UserNotFoundException.class)

public ResponseEntity<Object> exception(UserNotFoundException ex) {

return new ResponseEntity<>("User not found . Go Back AND Try Again..", HttpStatus.NOT\_FOUND);

}

}

**User.java**

package com.example.UserManager.entities;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

@Entity

public class User { //The Entity of a User; What it is.

@Id

@GeneratedValue(strategy=GenerationType.AUTO)

private Integer id;

private String name;

private String email;

private String password;

public User() {

super();

}

public User(Integer id, String name, String email, String password) {

super();

this.id = id;

this.name = name;

this.email = email;

this.password = password;

}

public Integer getId() {

return id;

}

public void setId(Integer id) {

this.id = id;

}

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

public String getEmail() {

return email;

}

public void setEmail(String email) {

this.email = email;

}

public String getPassword() {

return password;

}

public void setPassword(String password) {

this.password = password;

}

@Override

public String toString() {

return (id.toString() + " " + name + " " + email + " " + password);

}

}

**UserRepository.java**

package com.example.UserManager.repositories;

import org.springframework.data.repository.CrudRepository;

import org.springframework.stereotype.Repository;

import com.example.UserManager.entities.User;

@Repository

public interface UserRepository extends CrudRepository<User, Integer> {

public User findByName(String name);

}

**UserService.java**

package com.example.UserManager.services;

import java.util.Optional;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.stereotype.Service;

import com.example.UserManager.entities.User;

import com.example.UserManager.exceptions.UserNotFoundException;

import com.example.UserManager.repositories.UserRepository;

@Service

public class UserService {

@Autowired

private UserRepository userRepository;

public Iterable<User> GetAllUsers() {

return userRepository.findAll();

}

public User GetUserByName(String name) {

return userRepository.findByName(name);

}

public User GetUserById(Integer id) {

Optional<User> foundUser = userRepository.findById(id);

if(!foundUser.isPresent()) throw new UserNotFoundException();

return foundUser.get();

}

public User UpdateUser(User userToUpdate) {

return userRepository.save(userToUpdate);

}

}

**Application.properties**

spring.jpa.hibernate.ddl-auto=update

spring.datasource.url=jdbc:mysql://${MYSQL\_HOST:localhost}:3306/crud

spring.datasource.username=root

spring.datasource.password=root

logging.level.org.springframework.web: DEBUG

spring.mvc.view.prefix=/WEB-INF/jsp/

spring.mvc.view.suffix=.jsp

server.port=8085

**index.jsp**

<html>

<head>

<style type=*"text/css"*>

**div** {

margin: *auto*;

width: *50%*;

border: *3px solid green*;

padding: *10px*;

}

</style>

</head>

<body><br>

<div class=*"container"*>

<h2>Search User By Id AND Update</h2>

<form action=*"search/{id}"* method=*"post"*>

Enter ID : <input name=*"id"* type=*"text"* id=*"id"* placeholder=*"Enter Id Like 1 or 2 or.."*

required /> <input name=*"Submit"* type=*"submit"* />

</form>

<br>

<a href=*"users"*><b>See the All Users</b></a><br><br>

</div>

</body>

</html>

**Search.jsp**

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

pageEncoding=*"UTF-8"*%>

<%@ taglib prefix=*"form"* uri=*"http://www.springframework.org/tags/form"*%>

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"

"http://www.w3.org/TR/html4/loose.dtd">

<html>

<style>

**table,** **td,** **th** {

border: *1px solid #ddd*;

text-align: *left*;

}

**table** {

border-collapse: *collapse*;

width: *80%*;

}

**th,** **td** {

padding: *15px*;

}

*.center* {

margin-left: *auto*;

margin-right: *auto*;

}

*.container* {

margin: *auto*;

width: *30%*;

border: *3px solid green*;

padding-left: *50px*;

}

</style>

<body>

<h2>User Detail</h2>

<table class=*"center"*>

<tr>

<th>ID</th>

<th>Name</th>

<th>Email</th>

<th>Password</th>

</tr>

<tr>

<td>${userSearch.id}</td>

<td>${userSearch.name}</td>

<td>${userSearch.email}</td>

<td>${userSearch.password}</td>

</tr>

</table>

<br>

<div class=*"container"*>

<form:form action=*"update"* method=*"post"* commandName=*"update"*>

<h3>Update User..</h3>

<p>User ID: ${userSearch.id}</p>

<input type=*"hidden"* name=*"id"* id=*"id"* value=*"*${userSearch.id}*"*

required />

<label for=*"name"*>Name:</label>

<br />

<input type=*"text"* name=*"name"* id=*"name"* value=*"*${userSearch.name}*"*

required />

<br />

<label for=*"email"*>Email:</label>

<br />

<input type=*"text"* name=*"email"* id=*"email"*

value=*"*${userSearch.email}*"* required />

<br />

<label for=*"password"*>Password: </label>

<br />

<input type=*"text"* name=*"password"* id=*"password"*

value=*"*${userSearch.password}*"* required />

<br />

<br />

<input type=*"submit"* value=*"Save"* />

</form:form>

<br /> <br /> <a href=*"/"*><b>Back</b></a>

</div>

</body>

</html>

**Update.jsp**

<html>

<head>

<style>

*.container* {

margin: *auto*;

width: *50%*;

border: *3px solid green*;

padding-left: *50px*;

}

</style>

</head>

<body>

<div class=*"container"*>

<h2>Successfully Updated</h2>

Updated Information of User : ${updatedUser.toString()} <br /> <br>

<br /> <a href=*"/"*><b>Back to Home</b></a><br>

<br>

<br>

</div>

</body>

</html>

**Users.jsp**

<%@ taglib uri=*"http://java.sun.com/jsp/jstl/core"* prefix=*"c"*%>

<html>

<style>

**table,** **td,** **th** {

border: *1px solid #ddd*;

text-align: *left*;

}

**table** {

border-collapse: *collapse*;

width: *80%*;

}

**th,** **td** {

padding: *15px*;

}

</style>

<head></head>

<body>

<h2>Users Detail</h2>

<table>

<tr><th>ID</th><th>Name</th><th>Email</th><th>Password</th></tr>

<c:forEach items=*"*${users}*"* var=*"user"* varStatus=*"count"*>

<tr id=*"*${count.index}*"*>

<td>${user.id}</td>

<td>${user.name}</td>

<td>${user.email}</td>

<td>${user.password}</td>

</tr>

</c:forEach>

</table>

<br /> <br /> <a href=*"/"*><b>Back</b></a>

</body>

</html>

Pom.xml

<?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 https://maven.apache.org/xsd/maven-4.0.0.xsd"*>

<modelVersion>4.0.0</modelVersion>

<parent>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-parent</artifactId>

<version>2.4.3</version>

<relativePath /> <!-- lookup parent from repository -->

</parent>

<groupId>com.example</groupId>

<artifactId>UserManager</artifactId>

<version>0.0.1-SNAPSHOT</version>

<name>UserManager</name>

<description>Searching for a Specific User and Updating the User Information.</description>

<properties>

<java.version>1.8</java.version>

</properties>

<dependencies>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-data-jpa</artifactId>

</dependency>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-web</artifactId>

</dependency>

<dependency>

<groupId>mysql</groupId>

<artifactId>mysql-connector-java</artifactId>

<scope>runtime</scope>

</dependency>

<dependency>

<groupId>org.projectlombok</groupId>

<artifactId>lombok</artifactId>

<optional>true</optional>

</dependency>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-test</artifactId>

<scope>test</scope>

</dependency>

<dependency>

<groupId>javax.servlet</groupId>

<artifactId>jstl</artifactId>

<version>1.2</version>

</dependency>

<dependency>

<groupId>org.apache.tomcat.embed</groupId>

<artifactId>tomcat-embed-jasper</artifactId>

<scope>provided</scope>

</dependency>

<dependency>

<groupId>javax.xml.bind</groupId>

<artifactId>jaxb-api</artifactId>

</dependency>

<dependency>

<groupId>org.javassist</groupId>

<artifactId>javassist</artifactId>

<version>3.25.0-GA</version>

</dependency>

<dependency>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-devtools</artifactId>

<scope>runtime</scope>

<optional>true</optional>

</dependency>

</dependencies>

<build>

<plugins>

<plugin>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-maven-plugin</artifactId>

<configuration>

<excludes>

<exclude>

<groupId>org.projectlombok</groupId>

<artifactId>lombok</artifactId>

</exclude>

</excludes>

</configuration>

</plugin>

</plugins>

</build>

</project>