

Source Code:

Open 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.project</groupId>
  <artifactId>Feedback</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <name>Feedback</name>
  <description>Create a Spring Boot project that will capture user feedback using a REST endpoint.
The REST resource will take in parameters using HTTP POST. The feedback data will be then added to a
database table.</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-data-rest</artifactId>
```

```

</dependency>
<dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-jersey</artifactId>
</dependency>
<dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-web</artifactId>
</dependency>

<dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-devtools</artifactId>
    <scope>runtime</scope>
    <optional>true</optional>
</dependency>

<dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-test</artifactId>
    <scope>test</scope>
</dependency>
<dependency>
    <groupId>org.projectlombok</groupId>
    <artifactId>lombok</artifactId>
    <optional>true</optional>
</dependency>
<!-- this Dependency helps make sure that pathing works correct-->
<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>
</dependencies>
<build>
    <plugins>
        <plugin>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-maven-plugin</artifactId>
        </plugin>
    </plugins>
</build>

</project>

```

src/main/java

Create package com.project.Feedback

```

package com.project.Feedback;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication

public class FeedbackApplication {

    public static void main(String[] args) {

        SpringApplication.run(FeedbackApplication.class, args);

    }
}

```

```
}
```

Create package `com.project.Feedback.controllers`

Create `FeedbackController.java`

```
package com.project.Feedback.controllers;

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

import org.springframework.http.MediaType;

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

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

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

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

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

import com.project.Feedback.entities.Feedback;

import com.project.Feedback.services.FeedbackService;

@RestController

public class FeedbackController {

    @Autowired

    FeedbackService feedbackService;

    @GetMapping("/feedback")

    public Iterable<Feedback> getAllFeedbacks(){

        return feedbackService.GetAllFeedback();

    }

    @PostMapping(path="/feedback", consumes={MediaType.APPLICATION_JSON_VALUE})
```

```

        public Feedback addNewFeedback(@RequestBody Feedback fb) {

            Feedback newFb = new Feedback(fb.getComments(), fb.getRating(), fb.getUser());

            feedbackService.addNewFeedback(newFb);

            return newFb;

        }

    }

```

Create TestFormController.java

```

package com.project.Feedback.controllers;

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 com.project.Feedback.entities.Feedback;

import com.project.Feedback.services.FeedbackService;

@Controller

public class TestFormController {

    @Autowired

    FeedbackService feedbackService;

    @GetMapping("/test_form")

    public String showTestForm(ModelMap model) {

        model.addAttribute("test", new Feedback());
    }
}

```

```

        return "testformjsp";
    }

    @PostMapping("/test_form")

    public String submitTestForm(@ModelAttribute("testUser") Feedback fb, ModelMap m) {

        feedbackService.addNewFeedback(fb);

        m.addAttribute("test", fb);

        return "post";
    }

    //      TODO: Implement form submission

    //      TODO: call RestTemplate and make json request to localhost.../feedback

    }

    //RestTemplate restTemplate = new RestTemplate();

    //URL testForm = new URL("http://localhost:8090/feedbacks/{feedback}");

    //ResponseEntity<String> response = restTemplate.getForEntity(testForm + "/7", String.class);

    //ObjectMapper mapper = new ObjectMapper();

    //JsonNode root = mapper.readTree(response.getBody());

    //JsonNode name = root.path("name");

    //model.addAttribute(name);

    //String result = restTemplate.getForObject("http://localhost:8090/feedbacks/{feedback}", String.class,
    7);

```

Create package com.project.Feedback.repositories

Create FeedbackRepository.java

```

package com.project.Feedback.repositories;

import org.springframework.data.repository.CrudRepository;

import org.springframework.stereotype.Repository;

import com.project.Feedback.entities.Feedback;

@Repository

public interface FeedbackRepository extends CrudRepository<Feedback, Integer> {

    public Feedback findByUser(String feedback);

}

```

Create package com.project.Feedback.entity

Create Feedback.java

```

package com.project.Feedback.entities;

import javax.persistence.Column;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.validation.constraints.NotNull;

import lombok.Data;

@Entity

@Data

public class Feedback {

    @Id

    @GeneratedValue(strategy= GenerationType.AUTO)

```

```

@Column(name="id")

@NotNull

private Integer id;

@Column(name="comments")

private String comments;

@Column(name="rating")

@NotNull

private int rating;

@Column(name="user")

private String user;

public Feedback(){

    super();

}

public Feedback(String comments, Integer rating, String user) {

    this.comments = comments;

    this.rating = rating;

    this.user = user;

}

/*

 * Needed the setters and getters to be able to add name and comments otherwise

 * they are nulls when entering the SQL DB

 */

public String getComments() {

```



```

        return comments;
    }

    public void setComments(String comments) {

        this.comments = comments;
    }


    public Integer getRating() {

        return rating;
    }

    public void setRating(Integer rating){

        this.rating = rating;
    }

    public String getUser(){

        return user;
    }

    public void setUser(String user) {

        this.user = user;
    }

    @Override

    public String toString() {

return "Feedback[id=" + id + ", comments=" + comments + ", rating=" + rating + ", user=" + user + "];"

    }

}

```

Create package `com.project.Feedback.services`

Create `FeedbackService.java`

```
package com.project.Feedback.services;

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

import org.springframework.stereotype.Service;

import com.project.Feedback.entities.Feedback;

import com.project.Feedback.repositories.FeedbackRepository;

@Service

public class FeedbackService {

    @Autowired

    FeedbackRepository feedbackRepo;

    public Iterable<Feedback> GetAllFeedback() {

        return feedbackRepo.findAll();

    }

    public Feedback addNewFeedback(Feedback fb) {

        return feedbackRepo.save(fb);

    }

}
```

Src/main/resources

Create folder static and create `testform.html` and `testform.js`

`testform.html`

```
<!DOCTYPE html>

<html>
```

```

<head>
<script src="testform.js">
</script>
</head>
<body>
<!-- This is a form that is used for testing on the client
side using a client-side code form -->
<h2>Feedback Test Form</h2>

<form onsubmit="SubmitTestForm()">
  <label for="user">User:</label><br>
  <input type="text" id="user" name="user" placeholder="John"><br>
  <label for="comments">Comments:</label><br>
  <input type="text" id="comments" name="comments" placeholder="Doe"><br><br>
  <input type="submit" value="Submit">
</form>

<p>If you click the "Submit" button, the form-data will be sent to a page called
"/action_page.php".</p>
</body>
</html>

```

testform.js

```

function SubmitTestForm() {

  //TODO: gather fields from form
  //TODO: Jsonify form fields
  //TODO: Call postFormDataAsJson to http://localhost:8090/your/endpoint
  alert("The form was submitted");
}

/**
 * Helper function for POSTing data as JSON with fetch.
 *
 * @param {Object} options
 * @param {string} options.url - URL to POST data to
 * @param {FormData} options.formData - `FormData` instance

```

```

* @return {Object} - Response body from URL that was POSTed to
* /

async function postFormDataAsJson({ url, formData }) {
  /**
   * We can't pass the `FormData` instance directly to `fetch`
   * as that will cause it to automatically format the request
   * body as "multipart" and set the `Content-Type` request header
   * to `multipart/form-data`. We want to send the request body
   * as JSON, so we're converting it to a plain object and then
   * into a JSON string.
   *
   * @see https://developer.mozilla.org/en-US/docs/Web/HTTP/Methods/POST
   * @see https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\_Objects/Object/fromEntries
   * @see https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\_Objects/JSON/stringify
   */
  const plainFormData = Object.fromEntries(formData.entries());
  const formDataJsonString = JSON.stringify(plainFormData);

  const fetchOptions = {
    /**
     * The default method for a request with fetch is GET,
     * so we must tell it to use the POST HTTP method.
     */
    method: "POST",
    /**
     * These headers will be added to the request and tell
     * the API that the request body is JSON and that we can
     * accept JSON responses.
     */
    headers: {
      "Content-Type": "application/json",
      "Accept": "application/json"
    },
  },

```

```

    /**
     * The body of our POST request is the JSON string that
     * we created above.
     */
    body: formDataJsonString,
  };

  const response = await fetch(url, fetchOptions);

  if (!response.ok) {
    const errorMessage = await response.text();
    throw new Error(errorMessage);
  }

  return response.json();
}

```

application.properties

```

spring.jpa.hibernate.ddl-auto=update
spring.datasource.url=jdbc:mysql://localhost:3306/mywork
spring.datasource.username=root
spring.datasource.password=password

logging.level.org.springframework.web: DEBUG
spring.mvc.view.prefix=/WEB-INF/jsp/
spring.mvc.view.suffix=.jsp
server.port=8080

```

src/main/webapp/WEB-INF/jsp

Create index.jsp

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>

```

```

<meta charset="ISO-8859-1">
<title>Welcome Page</title>
</head>
<h2>Landing Page</h2>
<body>
<a href="test_form">Test Form</a><br/><br/>
<a href="feedback">See all Feedbacks</a><br/><br/>
<!-- Can only use these (below) if you have jersey dependency -->
<br/><br/>
<p>Can only use these link below if you have the jersey dependency added to this dependency.
Jersey has been added to this project so it can use the links below.</p>
<a href="feedbacks">See all feedbacks as Json format</a><br/><br/>
<a href="profile/feedbacks">See Json's in profile</a>
</body>
</html>

```

Create post.jsp

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Post test</title>
</head>
<body>
Successfully added: ${testUser.toString()}
</body>
</html>

```

Create testformjsp.jsp

```

<%@ taglib prefix="form" uri="http://www.springframework.org/tags/form"%>
<html>
<head>
<meta charset="ISO-8859-1">

```

```
<title>Spring test App</title>
</head>
<body>
<form:form action="/test_form" method="post" commandName="testUser">
  <label for="user">User:</label><br>
  <input type="text" id="user" name="user" placeholder="John"><br>
  <label for="comments">Comments:</label><br>
  <input type="text" id="comments" name="comments" placeholder="Doe"><br><br>
  <input type="submit" value="Submit">
  <label for="rating">Rating:</label><br>

  <input type="range" name="rating" id="rating" min="0" max="10" value="5" class="slider">
</form:form>
</body>
</html>
```