`

Spring Web MVC + AJAX

Integrate jQuery AJAX to allow submit a form via AJAX in Spring Web MVC

`

General Information

Version	1.0.0
Date	23.08.2016
Author	Phat H. Vu
Classification	**Internal** / ~~Confidential / Public / Not classified~~
Status	**On work**/ ~~Draft / Released~~

Version control

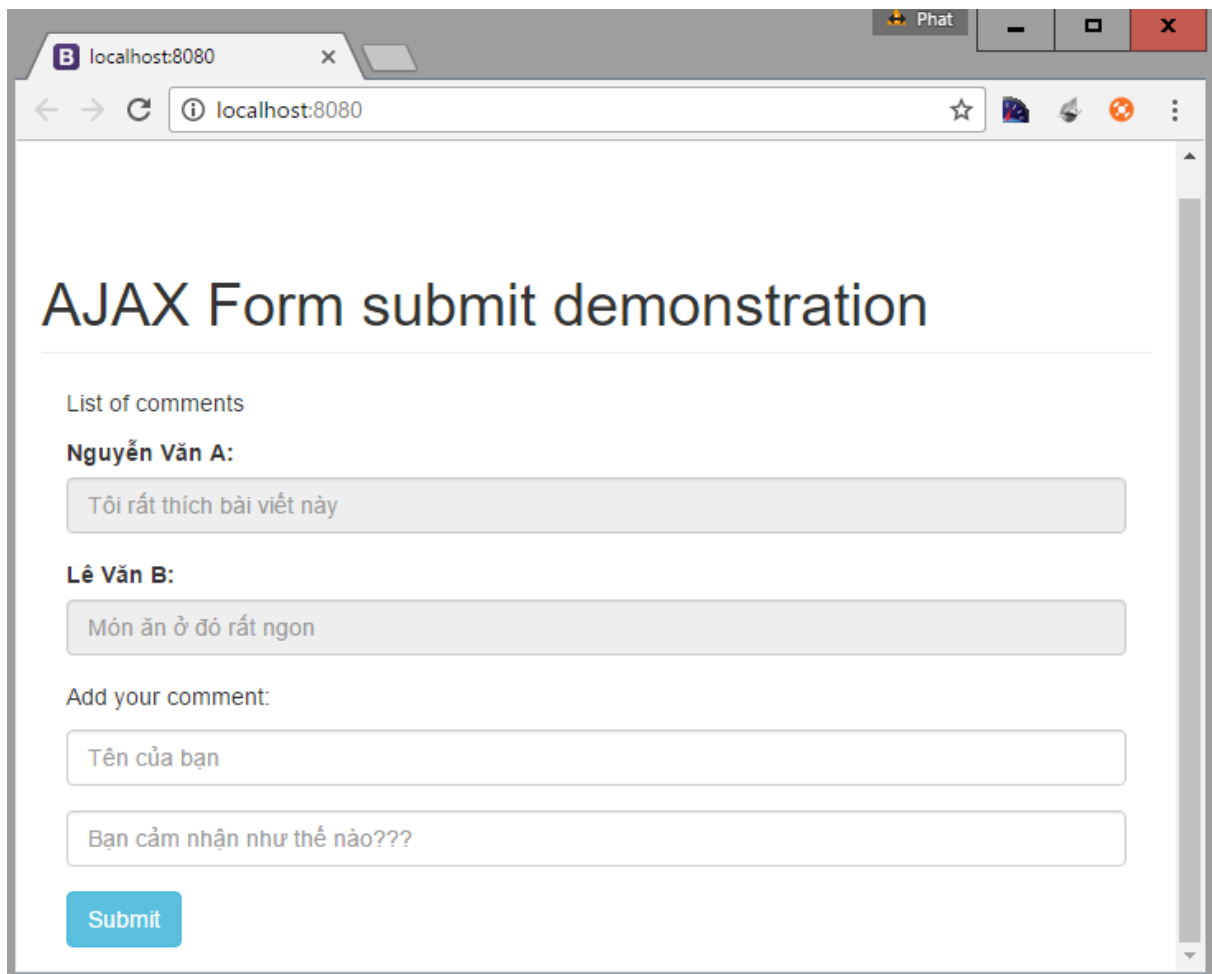| Date	Version	Author	Description
23.08.16	1.0.0	Phat H. Vu	Documentation initialization

Contents

`

1   Objectives

In web programming, AJAX is one of the popular techniques. AJAX helps updating a web page without reloading the page or sending data to a server in the background.

Some references: http://www.w3schools.com/ajax/, http://api.jquery.com/jquery.ajax/

In this demonstration, we'll build a sample Spring Web MVC integrated with AJAX + Jquery. This sample allows users to submit a new comment, and then append this comment to a list comment without reloading the page.

Screenshots

AJAX Form submit demonstration

List of comments

Nguyễn Văn A:

> Tôi rất thích bài viết này

Lê Văn B:

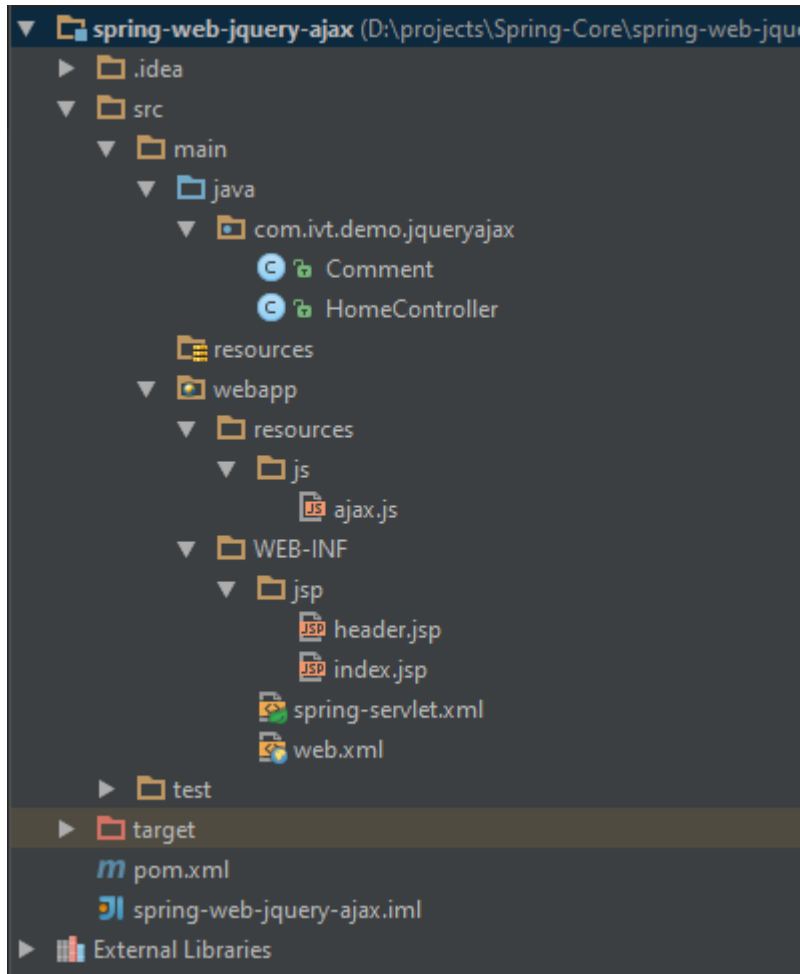> Món ăn ở đó rất ngon

Phát Vũ

> Cool....

Add your comment:

> Phát Vũ

> Cool....

Submit

`

2 Project structure

3 Source code

com.ivt.demo.jqueryajax.Comment.java:

```java
package com.ivt.demo.jqueryajax;

public class Comment {
    private String username;
    private String content;

    public Comment() {
    }

    public Comment(String username, String content) {
        this.username = username;
        this.content = content;
    }
    // getters & setters
}
```

com.ivt.demo.jqueryajax.HomeController.java:

```java
package com.ivt.demo.jqueryajax;

import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.*;

@Controller
```

`

```java
@RequestMapping(value = "/")
public class HomeController {
    @RequestMapping(method = RequestMethod.GET)
    public String showMap(Model model) {
        model.addAttribute("comment", new Comment());
        return "index";
    }

    @RequestMapping(method = RequestMethod.POST, value = "/comment/submit",
produces = "text/plain;charset=UTF-8")
    @ResponseBody
    public String submitComment(@RequestBody String body) {
        String[] commentArr = body.split(",");
        Comment comment = new Comment(commentArr[0], commentArr[1]);
        // save comment to DB
        return comment.getUsername() + "||" + comment.getContent();
    }
}
```

src\main\webapp\WEB-INF\web.xml :

```xml
<?xml version="1.0" encoding="UTF-8"?>
<web-app version="3.1" xmlns="http://xmlns.jcp.org/xml/ns/javaee"
         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee
    http://xmlns.jcp.org/xml/ns/javaee/web-app_3_1.xsd">

    <display-name>Spring Web MVC + JQuery AJAX</display-name>
    <filter>
        <filter-name>encoding-filter</filter-name>
        <filter-class>
            org.springframework.web.filter.CharacterEncodingFilter
        </filter-class>
        <init-param>
            <param-name>encoding</param-name>
            <param-value>UTF-8</param-value>
        </init-param>
        <init-param>
            <param-name>forceEncoding</param-name>
            <param-value>true</param-value>
        </init-param>
    </filter>

    <filter-mapping>
        <filter-name>encoding-filter</filter-name>
        <url-pattern>/*</url-pattern>
    </filter-mapping>

    <servlet>
        <servlet-name>spring</servlet-name>
        <servlet-class>org.springframework.web.servlet.DispatcherServlet</servlet-
class>
        <load-on-startup>1</load-on-startup>
    </servlet>

    <servlet-mapping>
        <servlet-name>spring</servlet-name>
        <url-pattern>/</url-pattern>
    </servlet-mapping>
</web-app>
```

src\main\webapp\WEB-INF\spring-servlet.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       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-3.2.xsd
        http://www.springframework.org/schema/context
        http://www.springframework.org/schema/context/spring-context-3.2.xsd
http://www.springframework.org/schema/mvc
http://www.springframework.org/schema/mvc/spring-mvc.xsd">

        <context:component-scan base-package="com.ivt.demo.jqueryajax"/>

        <mvc:resources mapping="/webjars/**" location="/webjars/"/>
        <mvc:resources mapping="/resources/**" location="/resources/"/>

        <bean
class="org.springframework.web.servlet.view.InternalResourceViewResolver">
                <property name="prefix" value="/WEB-INF/jsp/" />
                <property name="suffix" value=".jsp" />
        </bean>

        <mvc:default-servlet-handler />
        <mvc:annotation-driven />
</beans>
```

src\main\webapp\WEB-INF\jsp\header.jsp:

```
<%@ page contentType="text/html;charset=UTF-8" language="java" %>
<head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <!-- The above 3 meta tags *must* come first in the head; any other head
content must come *after* these tags -->
    <meta name="description" content="">
    <meta name="author" content="VU Hong Phat">
    <link rel="icon" href="http://getbootstrap.com/favicon.ico">

    <!-- Bootstrap -->
    <link rel='stylesheet' href='/webjars/bootstrap/3.3.7/css/bootstrap.min.css'>
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
    <script src="/resources/js/ajax.js"></script>
</head>
```

src\main\webapp\WEB-INF\jsp\index.jsp:

```
<%@ taglib prefix="form" uri="http://www.springframework.org/tags/form" %>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>
<%@ page contentType="text/html;charset=UTF-8" language="java" %>
<html>
<jsp:include page="header.jsp" />
<c:url var="home" value="/" scope="request" />
<body>
    <div class="container" style="margin-top: 60px;">
        <h1 class="page-header">AJAX Form submit demonstration</h1>
        <div id="commentList" class="col-md-4">
            <p>List of comments</p>
            <div class="form-group">
                <label>Nguyễn Văn A:</label>
                <input type="text" class="form-control" placeholder="Tôi rất thích
bài viết này" readonly>
            </div>
            <div class="form-group">
                <label>Lê Văn B:</label>
                <input type="text" class="form-control" placeholder="Món ăn ở đó
rất ngon" readonly>
            </div>
        </div>

        <div class="col-md-4">
            <p>Add your comment:</p>
            <form:form id="submitCommentForm" method="post"
```

```
`
        modelAttribute="comment">
                    <div class="form-group">
                        <form:input id="username" path="username" type="text"
class="form-control" placeholder="Tên của bạn"/>
                    </div>
                    <div class="form-group">
                        <form:input id="content" type="text" path="content"
class="form-control" placeholder="Bạn cảm nhận như thế nào???"/>
                    </div>
                    <button type="submit" class="btn btn-info">Submit</button>
                </form:form>
            </div>
        </div>
</body>
</html>
```

src\main\webapp\resources\js\ajax.js:

```javascript
jQuery(document).ready(function($) {
    $("#submitCommentForm").submit(function(event) {
        // Prevent the form from submitting via the browser.
        event.preventDefault();
        submitComment();
    });
});

function submitComment() {
    var comment = $("#username").val() + "," + $("#content").val();

    $.ajax({
        type : "POST",
        contentType : "application/json",
        url : "/comment/submit",
        data : comment,
        timeout : 100000,
        success : function(data) {
            console.log(data);
            display(data);
        }
    });
}

function display(data) {
    var comment = data.split('||');
    var newComment = "<div class='form-group'>"
                        + "<label>" +comment[0] + "</label>"
                        + "<input type='text' class='form-control'
placeholder='" + comment[1] + "' readonly>"
                        + "</div>";
    $('#commentList').append(newComment);
}
```

pom.xml:

```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
http://maven.apache.org/xsd/maven-4.0.0.xsd">
    <modelVersion>4.0.0</modelVersion>

    <groupId>com.ivt.spring</groupId>
    <artifactId>spring-web-jquery-ajax</artifactId>
    <version>1.0-SNAPSHOT</version>
    <packaging>war</packaging>
    <properties>
        <spring.version>4.3.0.RELEASE</spring.version>
        <java.version>1.8</java.version>
        <jstl.version>1.2</jstl.version>
```

```xml
            <webjar.bootstrap.version>3.3.7</webjar.bootstrap.version>
    </properties>

    <dependencies>
        <dependency>
            <groupId>org.springframework</groupId>
            <artifactId>spring-webmvc</artifactId>
            <version>${spring.version}</version>
        </dependency>
        <dependency>
            <groupId>jstl</groupId>
            <artifactId>jstl</artifactId>
            <version>${jstl.version}</version>
        </dependency>
        <dependency>
            <groupId>org.webjars</groupId>
            <artifactId>bootstrap</artifactId>
            <version>${webjar.bootstrap.version}</version>
        </dependency>
    </dependencies>

    <build>
        <plugins>
            <plugin>
                <groupId>org.apache.maven.plugins</groupId>
                <artifactId>maven-compiler-plugin</artifactId>
                <configuration>
                    <source>${java.version}</source>
                    <target>${java.version}</target>
                </configuration>
            </plugin>
        </plugins>
    </build>

</project>
```