```
package com;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.context.annotation.ComponentScan;

@SpringBootApplication
@ComponentScan("com.*")
public class TmsApplication {
    /**
     * Starting point of the application
     *
     * @param args Arguments passed to the application
     */
    public static void main(String[] args) {
        SpringApplication.run(TmsApplication.class, args);
    }
}
```

```
package com.controller;

import java.util.Locale;

import org.springframework.context.MessageSource;
import org.springframework.context.annotation.Bean;
import org.springframework.context.annotation.Configuration;
import org.springframework.context.support.ReloadableResourceBundleMessageSource;
import org.springframework.validation.beanvalidation.LocalValidatorFactoryBean;
import org.springframework.web.servlet.LocaleResolver;
import org.springframework.web.servlet.config.annotation.InterceptorRegistry;
import org.springframework.web.servlet.config.annotation.WebMvcConfigurerAdapter;
import org.springframework.web.servlet.i18n.LocaleChangeInterceptor;
import org.springframework.web.servlet.i18n.SessionLocaleResolver;

@Configuration
public class InternationalizationConfig extends WebMvcConfigurerAdapter {
        /**
         * Set default Locale
         *
         * @return A bean of LocalResolver
         */
        @Bean
        public LocaleResolver localeResolver() {
                SessionLocaleResolver slr = new SessionLocaleResolver();
                slr.setDefaultLocale(Locale.US);

                return slr;
        }

        /**
         * Set path variable name for changing language
         *
         * @return A bean of LocaleChangeInterceptor
         */
        @Bean
        public LocaleChangeInterceptor localeChangeInterceptor() {
                LocaleChangeInterceptor lci = new LocaleChangeInterceptor();
                lci.setParamName("language");

                return lci;
        }
```

```
    /**
     * Add interceptor into the registry
     */
    @Override
    public void addInterceptors(InterceptorRegistry registry) {
        registry.addInterceptor(localeChangeInterceptor());
    }

    /**
     * Set base name for messages.properties files Set default encoding to UTF-8
     *
     * @return A bean of MessageSource
     */
    @Bean
    public MessageSource messageSource() {
        ReloadableResourceBundleMessageSource rrbms = new
ReloadableResourceBundleMessageSource();
        rrbms.setBasename("classpath:messages");
        rrbms.setDefaultEncoding("UTF-8");

        return rrbms;
    }

    /**
     * Set validation message source
     *
     * @return A bean of LocalValidatorFactoryBean
     */
    @Bean
    public LocalValidatorFactoryBean localValidatorFactoryBean() {
```

```java
        LocalValidatorFactoryBean lvfb = new LocalValidatorFactoryBean();
        lvfb.setValidationMessageSource(messageSource());

        return lvfb;
    }
}
```

```java
package com.controller;

import java.util.Arrays;
import java.util.List;

import javax.validation.Valid;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.ModelMap;
import org.springframework.validation.BindingResult;
import org.springframework.web.bind.annotation.ModelAttribute;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;

import com.model.UserClaim;
import com.service.TaxService;

@Controller
public class TaxController {
    @Autowired
    public TaxService taxService;

    /**
     * Display taxclaim.jsp page when a get request is pushed on url
     * /getTaxClaimFormPage
     *
     * @param userClaim Is the UserClaim component
     * @return taxclaim as a jsp page
     * @see UserClaim
     */
    @RequestMapping(value = "/getTaxClaimFormPage", method = RequestMethod.GET)
    public String claimPage(@ModelAttribute("userClaim") UserClaim userClaim) {
        return "taxclaim";
    }

    /**
     * Return result.jsp age when validation is successful Otherwise return back to
     * taxclaim page with error message
     *
     * @param userClaim UserClaim component
     * @param result    BindingResult which validate the user input
     * @param map       ModelMap to put attribute which will be forwarded to next
     *                  page
     * @return "result.jsp" page if the validation is successful otherwise
     *         "taxclaim.jsp" with error included
     */
    @RequestMapping(value = "/calculateTax", method = RequestMethod.GET)
    public String calculateTax(@Valid @ModelAttribute("userClaim") UserClaim userClaim,
BindingResult result,
            ModelMap map) {
        if (result.hasErrors()) {
            return "taxclaim";
        }

        double amount = taxService.calculateTax(userClaim);
```

```
		map.addAttribute("amount", amount);

		return "result";
	}

	/**
	 * Populate <form:select /> tag in the taxclaim.jsp page
	 *
	 * @return List of expenses
	 */
	@ModelAttribute("expenseList")
	public List<String> populateExpense() {
		return Arrays.asList("MedicalExpense", "TravelExpense", "FoodExpense");
	}
}
```

```
package com.model;

import javax.validation.constraints.NotBlank;
import javax.validation.constraints.PositiveOrZero;
import javax.validation.constraints.Size;

import org.springframework.stereotype.Component;

@Component
public class UserClaim {
	private String expenseType;
	@PositiveOrZero(message = "{error.expenseAmount.negative}")
	private double expenseAmt;
	@NotBlank(message = "{error.employeeId}")
	@Size(min = 5, message = "{error.employeeId.size}")
	private String employeeId;
	public String getExpenseType() {
		return expenseType;
	}

	public void setExpenseType(String expenseType) {
		this.expenseType = expenseType;
	}

	public double getExpenseAmt() {
		return expenseAmt;
	}

	public void setExpenseAmt(double expenseAmt) {
		this.expenseAmt = expenseAmt;
	}

	public String getEmployeeId() {
		return employeeId;
	}

	public void setEmployeeId(String employeeId) {
		this.employeeId = employeeId;
	}
}
```

```
package com.service;

import org.springframework.stereotype.Service;

import com.model.UserClaim;
```

```
@Service
public interface TaxService {
    /**
     * Calculate Tax
     *
     * @param userClaim UserClaim bean
     * @return Calculated tax
     */
    public double calculateTax(UserClaim userClaim);
}

package com.service;

import org.springframework.stereotype.Service;

import com.model.UserClaim;

@Service
public class TaxServiceImpl implements TaxService {
    /**
     * Calculate the tax according to the srs
     *
     * @param userClaim UserClaim component to get the values
     * @return Calculated tax
     */
    @Override
    public double calculateTax(UserClaim userClaim) {
        String e = userClaim.getExpenseType();
        double a = userClaim.getExpenseAmt();
        double t = 0.0;
        if (e.startsWith("M")) {
            if (a <= 1000) {
                t = 15.0;
            } else if (a > 1000 && a <= 10000) {
                t = 20.0;
            } else if (a > 10000) {
                t = 25.0;
            }
        } else if (e.startsWith("T")) {
            if (a <= 1000) {
                t = 10.0;
            } else if (a > 1000 && a <= 10000) {
                t = 15.0;
            } else if (a > 10000) {
                t = 20.0;
            }
        } else if (e.startsWith("F")) {
            if (a <= 1000) {
                t = 5.0;
            } else if (a > 1000 && a <= 10000) {
                t = 10.0;
            } else if (a > 10000) {
                t = 15.0;
            }
        }

        return a * (t / 100.0);
    }
}
```

```
server.port=9095
spring.mvc.view.prefix=/WEB-INF/jsp/
spring.mvc.view.suffix=.jsp
spring.mvc.static-class-path=/resources/**


---------------de.pro


label.employeeId=Employee ID in German
label.expenseType=Expense Type in German
label.expenseAmount=Expense Amount in German
error.employeeId=Employee ID cannot be empty in German
error.employeeId.size=Employee ID should be at least 5 characters in German
error.expenseAmount=Expense Amount cannot be empty in German
error.expenseAmount.numeric=Expense amount should be numeric only in German
error.expenseAmount.negative=Expense amount should not be a negative number in German


------ fr.pro


label.employeeId=Employee ID in French
label.expenseType=Expense Type in French
label.expenseAmount=Expense Amount in French
error.employeeId=Employee ID cannot be empty in French
error.employeeId.size=Employee ID should be at least 5 characters in French
error.expenseAmount=Expense Amount cannot be empty in French
error.expenseAmount.numeric=Expense amount should be numeric only in French
error.expenseAmount.negative=Expense amount should not be a negative number in French

------------- msg.pro

label.employeeId=Employee ID in English
label.expenseType=Expense Type in English
label.expenseAmount=Expense Amount in English
error.employeeId=Employee ID cannot be empty in English
error.employeeId.size=Employee ID should be at least 5 characters in English
error.expenseAmount=Expense Amount cannot be empty in English
error.expenseAmount.numeric=Expense amount should be numeric only in English
error.expenseAmount.negative=Expense amount should not be a negative number in English
```

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
	pageEncoding="ISO-8859-1"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
	<h2>The tax claim for ${ userClaim.expenseType } with expense amount
```

```
        ${ userClaim.expenseAmt } is ${ amount }</h2>
</body>
</html>
```

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" isELIgnored="false"%>
<%@ taglib prefix="spring" uri="http://www.springframework.org/tags"%>
<%@ taglib prefix="form" uri="http://www.springframework.org/tags/form"%>
<%@ taglib uri="http://www.springframework.org/tags/form" prefix="form"%>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<body style="background-color: lavender">
    <h1>
        <center>Tax: Tax Claim</center>
    </h1>
    <a href="/getTaxClaimFormPage?language=en">English</a>|
    <a href="/getTaxClaimFormPage?language=de">German</a>|
    <a href="/getTaxClaimFormPage?language=fr">French</a>
    </align>
    <form:form action="/calculateTax" method="get" modelAttribute="userClaim">
        <table>
            <tr>
                <td id="id1">
                    <spring:message code="label.employeeId" />
                </td>
                <td id="id2">
                    <form:input path="employeeId" id="employeeId" />
                </td>
                <td id="id3">
                    <form:errors path="employeeId" />
                </td>
            </tr>

            <tr>
                <td id="id4">
                    <spring:message code="label.expenseType" />
                </td>
                <td id="id5">
                    <form:select path="expenseType" items="${
expenseList }" id="expenseType" />
                </td>
                <td id="id6"></td>
            </tr>
            <tr>
                <td id="id7">
                    <spring:message code="label.expenseAmount" />
                </td>
                <td id="id8">
                    <form:input path="expenseAmt" id="expenseAmount"
/>
                </td>
                <td id=id9>
```

```
                    <form:errors path="expenseAmt" />
                </td>
            </tr>
            <tr>
                <td><input type="Submit" name="submit" value="Calculate
Claim" /></td>
                <td></td>
            </tr>
            <tr>
                <td><input type="reset" name="reset" value="Clear"
/></td>
                <td></td>
            </tr>
        </table>
    </form:form>
</body>
</html>
```