Spring MVC Regular Expression Validation

The Spring MVC Validation allows us to validate the user input in a particular sequence (i.e., regular expression). The **@Pattern** annotation is used to achieve regular expression validation. Here, we can provide the required regular expression to **regexp** attribute and pass it with the annotation.

Spring MVC Regular Expression Validation Example

1. Add dependencies to pom.xml file.

**pom.xml**

1. <!-- https://mvnrepository.com/artifact/org.springframework/spring-webmvc -->
2. **<dependency>**
3. **<groupId>**org.springframework**</groupId>**
4. **<artifactId>**spring-webmvc**</artifactId>**
5. **<version>**5.1.1.RELEASE**</version>**
6. **</dependency>**
7. <!-- https://mvnrepository.com/artifact/org.apache.tomcat/tomcat-jasper -->
8. **<dependency>**
9. **<groupId>**org.apache.tomcat**</groupId>**
10. **<artifactId>**tomcat-jasper**</artifactId>**
11. **<version>**9.0.12**</version>**
12. **</dependency>**
13. <!-- https://mvnrepository.com/artifact/javax.servlet/javax.servlet-api -->
14. **<dependency>**
15. **<groupId>**javax.servlet**</groupId>**
16. **<artifactId>**servlet-api**</artifactId>**
17. **<version>**3.0-alpha-1**</version>**
18. **</dependency>**
19. <!-- https://mvnrepository.com/artifact/javax.servlet/jstl -->
20. **<dependency>**
21. **<groupId>**javax.servlet**</groupId>**
22. **<artifactId>**jstl**</artifactId>**
23. **<version>**1.2**</version>**
24. **</dependency>**
25. <!-- https://mvnrepository.com/artifact/org.hibernate.validator/hibernate-validator -->
26. **<dependency>**
27. **<groupId>**org.hibernate.validator**</groupId>**
28. **<artifactId>**hibernate-validator**</artifactId>**
29. **<version>**6.0.13.Final**</version>**
30. **</dependency>**

2. Create the bean class

**Employee.java**

**package** com.javatpoint;

**import** javax.validation.constraints.Pattern;

**public** **class** Employee {

**private** String name;

--------------------------------------------------------------------------------------------

@Pattern(regexp = "^[a-zA-Z0-9]{6,12}$",

message = "username must be of 6 to 12 length with no special characters")

private String username;

--------------------------------------------------------------------------------------------

@Pattern(regexp = "^((?=.[a-z])(?=.[A-Z])(?=.[!@#$&])(?=.\*[0-9])){4,12}$",

message = "password must contain atleast 1 uppercase, 1 lowercase, 1 special character and 1 digit ")

private String password;

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    @Pattern(regexp="^[a-zA-Z0-9]{3}",message="length must be 3")

**private** String pass;

**public** String getName() {

**return** name;

    }

**public** **void** setName(String name) {

**this**.name = name;

    }

**public** String getPass() {

**return** pass;

    }

**public** **void** setPass(String pass) {

**this**.pass = pass;

    }

}

3. Create the controller class

1. **package** com.javatpoint;
3. **import** javax.validation.Valid;
4. **import** org.springframework.stereotype.Controller;
5. **import** org.springframework.ui.Model;
6. **import** org.springframework.validation.BindingResult;
7. **import** org.springframework.web.bind.annotation.ModelAttribute;
8. **import** org.springframework.web.bind.annotation.RequestMapping;
10. @Controller
11. **public** **class** EmployeeController {
13. @RequestMapping("/hello")
14. **public** String display(Model m)
15. {
16. m.addAttribute("emp", **new** Employee());
17. **return** "viewpage";
18. }
19. @RequestMapping("/helloagain")
20. **public** String submitForm(@Valid @ModelAttribute("emp") Employee e, BindingResult br)
21. {
22. **if**(br.hasErrors())
23. {
24. **return** "viewpage";
25. }
26. **else**
27. {
28. **return** "final";
29. }
30. }
31. }

4. Provide the entry of controller in the web.xml file

**web.xml**

1. **<?xml** version="1.0" encoding="UTF-8"**?>**
2. **<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"**>**
3. **<display-name>**SpringMVC**</display-name>**
4. **<servlet>**
5. **<servlet-name>**spring**</servlet-name>**
6. **<servlet-class>**org.springframework.web.servlet.DispatcherServlet**</servlet-class>**
7. **<load-on-startup>**1**</load-on-startup>**
8. **</servlet>**
9. **<servlet-mapping>**
10. **<servlet-name>**spring**</servlet-name>**
11. **<url-pattern>**/**</url-pattern>**
12. **</servlet-mapping>**
13. **</web-app>**

5. Define the bean in the xml file

**spring-servlet.xml**

1. **<?xml** version="1.0" encoding="UTF-8"**?>**
2. **<beans** xmlns="http://www.springframework.org/schema/beans"
3. xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
4. xmlns:context="http://www.springframework.org/schema/context"
5. xmlns:mvc="http://www.springframework.org/schema/mvc"
6. xsi:schemaLocation="
7. http://www.springframework.org/schema/beans
8. http://www.springframework.org/schema/beans/spring-beans.xsd
9. http://www.springframework.org/schema/context
10. http://www.springframework.org/schema/context/spring-context.xsd
11. http://www.springframework.org/schema/mvc
12. http://www.springframework.org/schema/mvc/spring-mvc.xsd"**>**
13. <!-- Provide support for component scanning -->
14. **<context:component-scan** base-package="com.javatpoint" **/>**
15. <!--Provide support for conversion, formatting and validation -->
16. **<mvc:annotation-driven/>**
17. <!-- Define Spring MVC view resolver -->
18. **<bean** id="viewResolver" class="org.springframework.web.servlet.view.InternalResourceViewResolver"**>**
19. **<property** name="prefix" value="/WEB-INF/jsp/"**></property>**
20. **<property** name="suffix" value=".jsp"**></property>**
21. **</bean>**
22. **</beans>**

6. Create the requested page

**index.jsp**

1. index.jsp
2. **<**%@ taglib prefix="form" uri="http://www.springframework.org/tags/form" %**>**
3. **<html>**
4. **<body>**
5. **<a** href="hello"**>**Click here...**</a>**
6. **</body>**
7. **</html>**

7. Create the other view components

**viewpage.jsp**

1. **<**%@ taglib prefix="form" uri="http://www.springframework.org/tags/form" %**>**
2. **<html>**
3. **<head>**
4. **<style>**
5. .error{color:red}
6. **</style>**
7. **</head>**
8. **<body>**
9. **<form:form** action="helloagain" modelAttribute="emp"**>**
10. Username: **<form:input** path="name"**/>** **<br><br>**
11. Password(\*): **<form:password** path="pass"**/>**
12. **<form:errors** path="pass" cssClass="error"**/><br><br>**
13. **<input** type="submit" value="submit"**>**
14. **</form:form>**
15. **</body>**
16. **</html>**

**final.jsp**

1. **<html>**
2. **<body>**
3. Username: ${emp.name} **<br><br>**
4. Password: ${emp.pass}
5. **</body>**
6. **</html>**

**Output:**

  
  
  
  
