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RESTful Web Services (JAX-RS) @PathParam Example

I n RESTful (JAX-RS) web services @PathParam annotation will be used to bind RESTful URL parameter values to the method arguments. Lets discuss with a simple example.

> **Note**:
>
> *If you are new to RESTful web services or if you would like to know complete step by step flow of JAX-RS, Go through this article 'Jersey Hello World example With Maven in Eclipse Jund, then only you will be able to understand this tutorial 😃 and even further web services tutorials.*

Required Files

▶ pom.xml

▶ web.xml

▶ RestServicePathParamJava4s.java

pom.xml

```xml
1  <project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-insta
2    <modelVersion>4.0.0</modelVersion>
3    <groupId>RestPathParamAnnotationExample</groupId>
4    <artifactId>RestPathParamAnnotationExample</artifactId>
5    <version>0.0.1-SNAPSHOT</version>
6    <packaging>war</packaging>
7
8    <repositories>
9      <repository>
10        <id>maven2-repository.java.net</id>
11        <name>Java.net Repository for Maven</name>
12        <url>http://download.java.net/maven/2/</url>
13        <layout>default</layout>
14      </repository>
15    </repositories>
16
17    <dependencies>
18      <dependency>
19        <groupId>junit</groupId>
20        <artifactId>junit</artifactId>
21        <version>4.8.2</version>
22        <scope>test</scope>
23      </dependency>
24
25      <dependency>
26        <groupId>com.sun.jersey</groupId>
27        <artifactId>jersey-server</artifactId>
```

```xml
28      <version>1.8</version>
29    </dependency>
30
31  </dependencies>
32
33   <build>
34     <finalName>RestPathParamAnnotationExample</finalName>
35     <plugins>
36       <plugin>
37         <artifactId>maven-compiler-plugin</artifactId>
38         <configuration>
39           <compilerVersion>1.5</compilerVersion>
40           <source>1.5</source>
41           <target>1.5</target>
42         </configuration>
43       </plugin>
44     </plugins>
45   </build>
46
47 </project>
```

web.xml

```xml
1  <web-app id="WebApp_ID" version="2.4"
2    xmlns="http://java.sun.com/xml/ns/j2ee" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
3    xsi:schemaLocation="http://java.sun.com/xml/ns/j2ee
4    http://java.sun.com/xml/ns/j2ee/web-app_2_4.xsd">
5    <display-name>RestPathParamAnnotationExample</display-name>
6
7    <servlet>
8      <servlet-name>jersey-serlvet</servlet-name>
9      <servlet-class>com.sun.jersey.spi.container.servlet.ServletContainer</servlet-class>
10     <init-param>
11       <param-name>com.sun.jersey.config.property.packages</param-name>
12       <param-value>com.java4s</param-value>
13     </init-param>
14     <load-on-startup>1</load-on-startup>
15   </servlet>
16
17   <servlet-mapping>
18     <servlet-name>jersey-serlvet</servlet-name>
19     <url-pattern>/rest/*</url-pattern>
20   </servlet-mapping>
21
22 </web-app>
23 <!-- www.Java4s.com -->
```

RestServicePathParamJava4s.java

```java
1  package com.java4s;
2
3  import javax.ws.rs.GET;
4  import javax.ws.rs.Path;
5  import javax.ws.rs.PathParam;
6  import javax.ws.rs.Produces;
7  import javax.ws.rs.core.Response;
8
9  @Path("/customers")
10 public class RestServicePathParamJava4s {
11
12   @GET
13   @Path("{name}/{country}")
14   @Produces("text/html")
15   public Response getResultByPassingValue(
16           @PathParam("name") String name,
```

```
17        @PathParam("country") String country) {
18
19    String output = "Customer name - "+name+", Country - "+country+"";
20    return Response.status(200).entity(output).build();
21
22  }
23 }
```
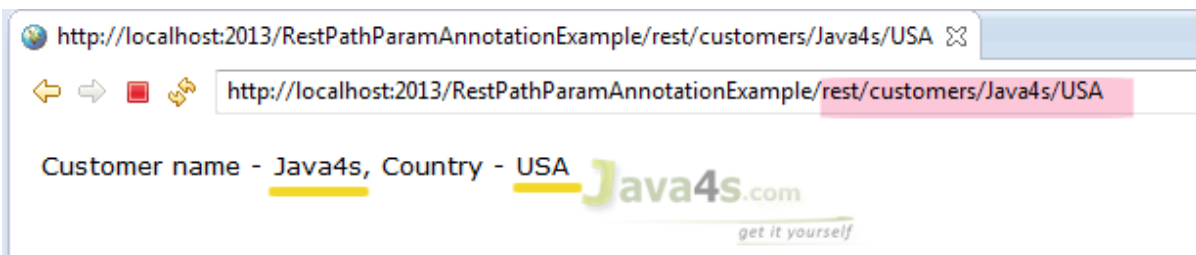
Explanation

▸ Right click on your project > *Run As* > *Run on Server*

▸ By default eclipse will open http://localhost:2013/RestPathParamAnnotationExample/ with HTTP 404 Error

▸ In web.xml we have specified URL pattern as /rest/* (line number 19) and in RestServicePathParamJava4s.java we specified class level @path as /customers [line number 9] and method level @path as {name}/{country} [line number 13]

▸ So the final URL should be http://localhost:2013/RestPathParamAnnotationExample/rest/customers/Java4s/USA

▸ Once you hit the URL, *http://localhost:2013/…… /rest/../Java4s/USA* , last two parameters in this URL 'Java4s' and 'USA' are retrieved by *@PathParam("name")*, *@PathParam("country")* annotations in *RestServicePathParamJava4s.java* and will copy into *String name, String country* respectively.

▸ Check the output

Output

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Comments

5 Responses to "RESTful Web Services (JAX-RS) @PathParam Example"

Krishna says:
September 25, 2014 at 5:50 AM

Really an understandable explanation

Sourajya says:
January 20, 2015 at 12:50 PM

Hi,

Can you please explain me the use of init-param here?

The values you have provided under param-name and param-value tags, I can't understand.

Aakash Ahmed says:
January 16, 2016 at 7:48 AM

Sivateja Kandula Your Really Done WonderFull Job And Keep It Up..!

vijay says:
March 4, 2016 at 8:47 AM

hi,

this is vijay, please help me . i want to send JSON data as request to REST web service and want to store JSON element to data base and response to client as successful read json elements.

mohit says:
May 14, 2016 at 6:03 AM

hello, this is mohit .please help me i want to create request in xml format and then that xml send as request with url, and want to get back response in xml format

Name*   **Mail***

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