Jersey hello world example

By mkyong (https://www.mkyong.com/author/mkyong/) | July 18, 2011 | Updated : August 29, 2012 | Viewed : 855,183 times +2,261 pv/w

Jersey (http://jersey.java.net/), reference implementation to develope RESTful web service based on the JAX-RS (JSR 311) (http://jsr311.java.net/nonav/releases/1.1/index.html) specification.

In this tutorial, we show you how to develop a simple hello world REST web application with **Jersey**.
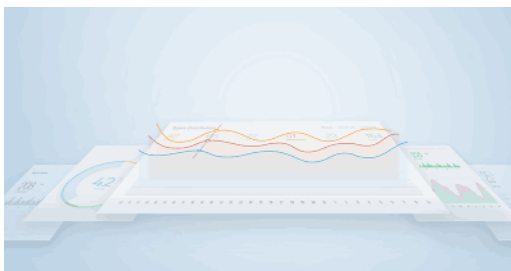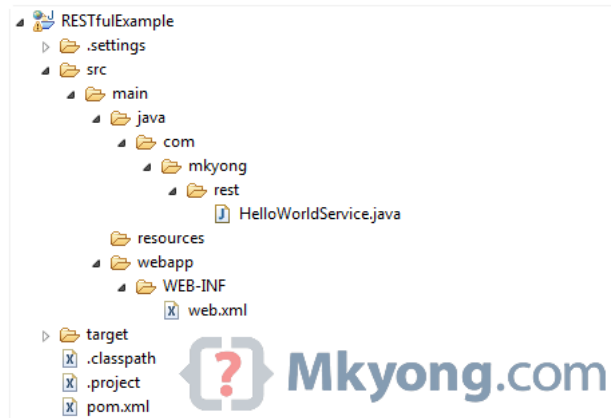
Technologies and Tools used in this article:

1. Jersey 1.8
2. JDK 1.6
3. Tomcat 6.0
4. Maven 3.0.3
5. Eclipse 3.6

> **Note**
> If you want to know what and how REST works, just search on Google, ton of available resources.

1. Directory Structure

This is the final web project structure of this tutorial.

2. Standard Web Project

Create a standard Maven web project structure.

```
mvn archetype:generate -DgroupId=com.mkyong.rest -DartifactId=RESTfulExample
    -DarchetypeArtifactId=maven-archetype-webapp -DinteractiveMode=false
```

> **Note**
> To support Eclipse, use Maven command :

```
mvn eclipse:eclipse -Dwtpversion=2.0
```

3. Project Dependencies

Jersey is published in Java.net Maven repository. To develop Jersey REST application , just declares "**jersey-server**" in Maven `pom.xml`.

File : pom.xml

```xml
<project ...>

    <repositories>
        <repository>
            <id>maven2-repository.java.net</id>
            <name>Java.net Repository for Maven</name>
            <url>http://download.java.net/maven/2/</url>
            <layout>default</layout>
        </repository>
    </repositories>

    <dependencies>

        <dependency>
            <groupId>com.sun.jersey</groupId>
            <artifactId>jersey-server</artifactId>
            <version>1.8</version>
        </dependency>

    </dependencies>

</project>
```

4. REST Service

Simple REST service with Jersey.

```java
package com.mkyong.rest;

import javax.ws.rs.GET;
import javax.ws.rs.Path;
import javax.ws.rs.PathParam;
import javax.ws.rs.core.Response;

@Path("/hello")
public class HelloWorldService {

    @GET
    @Path("/{param}")
    public Response getMsg(@PathParam("param") String msg) {

        String output = "Jersey say : " + msg;

        return Response.status(200).entity(output).build();

    }

}
```

5. web.xml

In `web.xml`, register "`com.sun.jersey.spi.container.servlet.ServletContainer`", and puts your Jersey service folder under "**init-param**", "`com.sun.jersey.config.property.packages`".

File : web.xml

```
<web-app id="WebApp_ID" version="2.4"
    xmlns="http://java.sun.com/xml/ns/j2ee"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://java.sun.com/xml/ns/j2ee
    http://java.sun.com/xml/ns/j2ee/web-app_2_4.xsd">
    <display-name>Restful Web Application</display-name>

    <servlet>
        <servlet-name>jersey-serlvet</servlet-name>
        <servlet-class>
                    com.sun.jersey.spi.container.servlet.ServletContainer
            </servlet-class>
        <init-param>
            <param-name>com.sun.jersey.config.property.packages</param-name>
            <param-value>com.mkyong.rest</param-value>
        </init-param>
        <load-on-startup>1</load-on-startup>
    </servlet>

    <servlet-mapping>
        <servlet-name>jersey-serlvet</servlet-name>
        <url-pattern>/rest/*</url-pattern>
    </servlet-mapping>

</web-app>
```
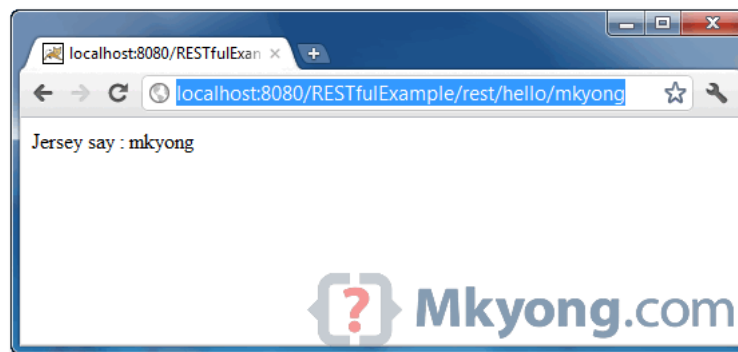
6. Demo

In this example, web request from "**projectURL/rest/hello/**" will match to "**HelloWorldService**", via `@Path("/hello")`.

And the "**{any values}**" from "**projectURL/rest/hello/{any values}**" will match to parameter annotated with `@PathParam`.

URL : http://localhost:8080/RESTfulExample/rest/hello/mkyong

Download Source Code

Download it – JAX-RS-Hello-World-Jersey-Example.zip (http://www.mkyong.com/wp-content/uploads/2011/07/JAX-RS-Hello-World-Jersey-Example.zip) (6 KB)

References

1. Jersey Official Website (http://jersey.java.net/)
2. RESTEasy hello world example (http://www.mkyong.com/webservices/jax-rs/resteasy-hello-world-example/)
3. REST with Java (JAX-RS) using Jersey – Tutorial (http://www.vogella.de/articles/REST/article.html)
4. IBM : RESTful Web services: The basics (http://www.ibm.com/developerworks/webservices/library/ws-restful/)
5. RESTful Web Services (http://www.oracle.com/technetwork/articles/javase/index-137171.html)

Tags :   hello world (https://www.mkyong.com/tag/hello-world/)   jax-rs (https://www.mkyong.com/tag/jax-rs/)
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A   Tan without even going outside   Sponsored

B   Scan your skin for cancerous spots

C   Control how bright the light is

D   Turn it on and off through the internet   Your Score **0** Question **1/10**

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mkyong

Founder of Mkyong.com (http://mkyong.com), love Java and open source stuff. Follow him on Twitter (https://twitter.com/mkyong), or befriend him on Facebook (http://www.facebook.com/java.tutorial) or Google Plus (https://plus.google.com/110948163568945735692?rel=author). If you like my tutorials, consider make a donation to these charities (http://www.mkyong.com/blog/donate-to-charity/).

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shred lesnar

When I am trying to run the same example. I am getting 404 error on server.

Guest

👍 5 👎 ↩ REPLY

⏱ 1 year 1 month ago

Praveen

Guest

I am getting this error when I try to run, HTTP Status 500 – Servlet.init() for servlet jersey-serlvet threw exception

The ResourceConfig instance does not contain any root resource classes.

Anyone can help me here to sort out the issue??.

👍 3 👎 ↩ REPLY

⏱ 2 years 6 months ago

Nitish

Guest

Changing http://localhost:8080/RESTfulExample/rest/hello/mkyong (http://localhost:8080/RESTfulExample/rest/hello/mkyong) to
http://localhost:8080/rest/hello/mkyong (http://localhost:8080/rest/hello/mkyong)
made it work for me!
Thanks so much mkyong

👍 2 👎 ↩ REPLY

⏱ 5 months 6 days ago

Nitish

Guest

If you download his project folder and try to run his, make sure that you spec's match his, especially the jdk, Jersey and Tomcat version.

CORRECTION:
http://localhost:8080/RESTfulExample/rest/hello/mkyong (http://localhost:8080/RESTfulExample/rest/hello/mkyong)
(returns a 404 for me)
SHOULD BE
http://localhost:8080/rest/hello/mkyong (http://localhost:8080/rest/hello/mkyong)
(works fine)

This is what got mine to work.
Thanks so much mkyong!

👍 1 👎 ↩ REPLY

⏱ 5 months 6 days ago

Sathish Kumar

Guest

Hi mkyong,
I am getting the following exception. I am completely blocked can you please help me here.
com.sun.jersey.api.container.ContainerException: No WebApplication provider is present
com.sun.jersey.spi.container.WebApplicationFactory.createWebApplication(WebApplicationFactory.java:69)
com.sun.jersey.spi.container.servlet.ServletContainer.create(ServletContainer.java:412)
com.sun.jersey.spi.container.servlet.ServletContainer$InternalWebComponent.create(ServletContainer.java:327)

👍 1 👎 ↩ REPLY

⏱ 7 months 7 days ago

Karthick A S

Guest

hi Mkyong, I am trying above sample in my weblogic server….i am facing some issue. Is there i need to add any new jars related to weblogic server.

👍 0 👎 ↩ REPLY

⏱ 3 months 11 days ago

Und

Guest

Not work

👍 0 👎 ↩ REPLY

⏱ 3 months 14 days ago

Dorababu

Guest

Hi mkyong I had my XML which was generated using SOAP UI, where I am having some global parameters set. I am trying to execute that XML from maven using continuous integration process I am getting the following error **GET – Request_GetAllUsers Failed**SubmitException: com.eviware.soapui.model.iface.Request$SubmitException:

com.eviware.soapui.impl.wsdl.submit.RequestTransportRegistry$MissingTransportException: Missing protocol in endpoint [${Endpoint}]

Can you help me to over come this

👍 0 👎 ↩ REPLY

⊘ 6 months 6 days ago

neeraj bansal

Guest

works for me, thanks

👍 0 👎 ↩ REPLY

⊘ 1 year 1 month ago

Sydney

Guest

And I forgot to configure my server :(Done it now and the example is working perfectly :) … Big-ups to Mkyong

👍 0 👎 ↩ REPLY

⊘ 1 year 3 months ago

Sydney

Guest

Hi, MK, Thanks for delivering such great work. I have been benefiting from your tutorials for a while now. I am currently trying to get this one to work and be able to understand thoroughly. If I may ask, where do we configure the port number? '8080' in your example?

👍 0 👎 ↩ REPLY

⊘ 1 year 3 months ago

Michael Njoroge

Guest

its a cool one..

👍 0 👎 ↩ REPLY

⊘ 1 year 3 months ago

Arno Jan Sta Nimus

Guest

Why are you all using this com.sun packages?? they are likely to be removed from api!!

👍 0 👎 ↩ REPLY

⊘ 1 year 8 months ago

Juan Marco

Guest

For those of you having trouble:
1. Make sure you are not mixing jersey 1 with jersey 2.
2. The maven dependency for jersey 1 used in this tutorial INCLUDES
javax.ws.rs, so if you have this dependency below in your pom.xml,
you are in for trouble due to library collisions.

javax.ws.rs
javax.ws.rs-api

The error you get won't be indicative that this is the problem.

More on stack overflow:
http://stackoverflow.com/questions/23277429/exception-in-rest-jersey (http://stackoverflow.com/questions/23277429/exception-in-rest-jersey)

👍 0 👎 ↩ REPLY

⊘ 2 years 3 months ago

Capricorn1 (http://www.pcweenie.com/)

Guest

This was all I needed to get started in the right direction. Thanks!

👍 0 👎 ↩ REPLY

⊘ 2 years 5 months ago

RAYO

This example to uses qith JBoss 6 I need to change the web.xml

Guest   jersey-serlvet
               com.sun.jersey.spi.container.servlet.ServletContainer

               com.sun.jersey.config.property.packages
               mx.com.sia.tutorial.rest

               1

               jersey-serlvet
               /*

               resteasy.scan
               false

               resteasy.scan.providers
               false

               resteasy.scan.resources
               false

               Saludos!!!!

👍 0 👎   ↩ REPLY   ⊘ 2 years 5 months ago

Nagarjuna

Hi Sir, This is nagarjuna working for MNC, i have copied this project into my eclipse and converted into maven .
Guest   it is not working, am referring to different url. can you provide settings .xml for this project

👍 0 👎   ↩ REPLY   ⊘ 2 years 5 months ago

Eduardo Oportus

very helpfull, thank you.

Guest

👍 0 👎   ↩ REPLY   ⊘ 2 years 6 months ago

Johaness

fucker!!!!

Guest

👍 0 👎   ↩ REPLY   ⊘ 2 years 7 months ago

Johaness

No provider classes found.

Guest

👍 0 👎   ↩ REPLY   ⊘ 2 years 7 months ago

Johaness

GRAVE: Servlet [jersey-serlvet] in web application [/restSample] threw load() exception

Guest   java.lang.ClassNotFoundException: com.sun.jersey.spi.container.servlet.ServletContainer

            at org.apache.catalina.loader.WebappClassLoader.loadClass(WebappClassLoader.java:1720)

            at org.apache.catalina.loader.WebappClassLoader.loadClass(WebappClassLoader.java:1571)

            at org.apache.catalina.core.DefaultInstanceManager.loadClass(DefaultInstanceManager.java:506)

            at org.apache.catalina.core.DefaultInstanceManager.loadClassMaybePrivileged(DefaultInstanceManager.java:488)

            at org.apache.catalina.core.DefaultInstanceManager.newInstance(DefaultInstanceManager.java:115)

            at org.apache.catalina.core.StandardWrapper.loadServlet(StandardWrapper.java:1148)

            at org.apache.catalina.core.StandardWrapper.load(StandardWrapper.java:1087)

            at org.apache.catalina.core.StandardContext.loadOnStartup(StandardContext.java:5266)

            at org.apache.catalina.core.StandardContext.startInternal(StandardContext.java:5554)

at org.apache.catalina.util.LifecycleBase.start(LifecycleBase.java:150)

at org.apache.catalina.core.ContainerBase$StartChild.call(ContainerBase.java:1575)

at org.apache.catalina.core.ContainerBase$StartChild.call(ContainerBase.java:1565)

at java.util.concurrent.FutureTask.run(FutureTask.java:266)

at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1142)

at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:617)

at java.lang.Thread.run(Thread.java:745)

👍 0 👎 | ↩ REPLY   ⊘ 2 years 7 months ago

Johaness

as usual an incomplete broken sample!

Guest

👍 0 👎 | ↩ REPLY   ⊘ 2 years 7 months ago ⌃

Nitish

Not true

Guest

👍 0 👎 | ↩ REPLY   ⊘ 5 months 6 days ago

Murali Mohan (http://www.google.com)

Hi, i am getting the below deployment exception when i deployed in websphere 8.0, but it works well in tomcat server. Could you please let me know what was the issue?
java.lang.NoSuchMethodError: javax/ws/rs/core/Application.getProperties()Ljava/util/Map;

at org.glassfish.jersey.server.ApplicationHandler.(

java.lang.NoSuchMethodError: javax/ws/rs/core/Application.getProperties()Ljava/util/Map;

Guest

at org.glassfish.jersey.server.ApplicationHandler.(

ApplicationHandler.java:287)

👍 0 👎 | ↩ REPLY   ⊘ 2 years 7 months ago

RAJ

Hi everyone,

i just created this example in my machine, and when i tried to access it via the example URL mentioned below, i am getting Bad request 400 error in all the browsers.

Guest

http://localhost:8080/RESTfulExample/rest/hello/Raj (http://localhost:8080/RESTfulExample/rest/hello/Raj)

Did anyone faced this issue? If so, any help would be great.

Find below the request from browser:

Remote Address: [::1]:8080
Request URL: http://localhost:8080/RESTfulExample/rest/hello/Rajkumar (http://localhost:8080/RESTfulExample/rest/hello/Rajkumar)
Request Method: GET
Status Code: 400 Bad Request

Thanks in advance…

👍 0 👎 | ↩ REPLY   ⊘ 2 years 7 months ago

Guest

Is it jersey-servlet or jersey-servlvet

Guest

👍 0 👎 | ↩ REPLY   ⊘ 2 years 9 months ago

hbeira

Guest

Thanks!

👍 0 👎 | ↩ REPLY   ⊙ 3 years 4 months ago

Jayani

Guest

Thank you! :) This works.

👍 0 👎 | ↩ REPLY   ⊙ 3 years 5 months ago

Rahul Gonnade

Guest

this service runs perfectly on local server(localhost:8080).. but hen deployed on actual webserver(xyz.com) shows error

The requested URL "rest/hello/mkyong" was not found on this server.

Please help me out

Followed up the deployment process but still getting same error

👍 0 👎 | ↩ REPLY   ⊙ 3 years 5 months ago

Aaditya Kumar

Guest

Thanks Mkyong! unblocked me bigtime…

👍 0 👎 | ↩ REPLY   ⊙ 3 years 6 months ago

karthik

Guest

Dear Friends,Spring Boot vs Spring Web Services vs Jersey web services Which one is better to develop Web Services to develop application

Check on
1)Performance wise
2)Configuration wise
3)Writing Coding wise

👍 0 👎 | ↩ REPLY   ⊙ 3 years 7 months ago

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