

RESTful Java client with Jersey client

By mkyong (http://www.mkyong.com/author/mkyong/) | July 19, 2011 | Updated : August 29, 2012 | Viewed : 766,958 times +2,778 pv/w

This tutorial show you how to use **Jersey client APIs** to create a RESTful Java client to perform "**GET**" and "**POST**" requests to REST service that created in this "Jersey + Json (http://www.mkyong.com/webservices/jax-rs/json-example-with-jersey-jackson/)" example.

1. Jersey Client Dependency

To use Jersey client APIs, declares "jersey-client.jar" in your pom.xml file.

File: pom.xml

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



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2. GET Request

Review last REST service.

```
@Path("/json/metallica")
public class JSONService {

    @GET
    @Path("/get")
    @Produces(MediaType.APPLICATION_JSON)
public Track getTrackInJSON() {

        Track track = new Track();
        track.setTitle("Enter Sandman");
        track.setSinger("Metallica");

        return track;

}
//...
```

Jersey client to send a "GET" request and print out the returned json data.

```
package com.mkyong.client;
import com.sun.jersey.api.client.Client;
import com.sun.jersey.api.client.ClientResponse;
import com.sun.jersey.api.client.WebResource;
public class JerseyClientGet {
 public static void main(String[] args) {
    try {
        Client client = Client.create();
        WebResource webResource = client
           .resource("http://localhost:8080/RESTfulExample/rest/json/metallica/get");
        ClientResponse response = webResource.accept("application/json")
                   .get(ClientResponse.class);
        if (response.getStatus() != 200) {
           throw new RuntimeException("Failed : HTTP error code : "
            + response.getStatus());
        String output = response.getEntity(String.class);
        System.out.println("Output from Server .... \n");
        System.out.println(output);
      } catch (Exception e) {
        e.printStackTrace();
}
```

Output...

```
Output from Server ....
{"singer":"Metallica","title":"Enter Sandman"}
```



3. POST Request

Review last REST service.

```
@Path("/json/metallica")
public class JSONService {

    @POST
    @Path("/post")
    @Consumes(MediaType.APPLICATION_JSON)
public Response createTrackInJSON(Track track) {

    String result = "Track saved : " + track;
    return Response.status(201).entity(result).build();

}
//...
```

Jersey client to send a "POST" request, with json data and print out the returned output.

```
package com.mkyong.client;
import com.sun.jersey.api.client.Client;
import com.sun.jersey.api.client.ClientResponse;
import com.sun.jersey.api.client.WebResource;
public class JerseyClientPost {
 public static void main(String[] args) {
    try {
       Client client = Client.create();
       WebResource webResource = client
           .resource("http://localhost:8080/RESTfulExample/rest/json/metallica/post");
       String input = "{\"singer\":\"Metallica\",\"title\":\"Fade To Black\"}";
        ClientResponse response = webResource.type("application/json")
           .post(ClientResponse.class, input);
       if (response.getStatus() != 201) {
            throw new RuntimeException("Failed : HTTP error code : "
                 + response.getStatus());
       }
       System.out.println("Output from Server .... \n");
       String output = response.getEntity(String.class);
        System.out.println(output);
     } catch (Exception e) {
       e.printStackTrace();
     }
}
```

Output...

```
Output from Server ....

Track saved : Track [title=Fade To Black, singer=Metallica]
```

Download Source Code

Download it – Jersey-Client-Example.zip (http://www.mkyong.com/wp-content/uploads/2011/07/Jersey-Client-Example.zip) (8 KB)

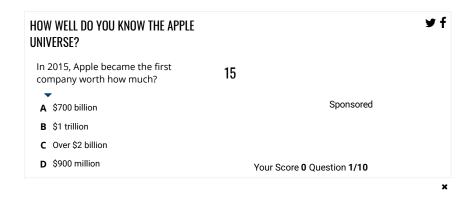
References

- 1. JSON example with Jersey + Jackson (http://www.mkyong.com/webservices/jax-rs/json-example-with-jersey-jackson/)
- 2. Jersey client examples (http://blogs.oracle.com/enterprisetechtips/entry/consuming_restful_web_services_with)
- 3. RESTful Java client with RESTEasy client framework (http://www.mkyong.com/webservices/jax-rs/restful-java-client-with-resteasy-client-framework/)
- 4. RESTful Java client with java.net.URL (http://www.mkyong.com/webservices/jax-rs/restfull-java-client-with-java-net-url/)
- 5. RESTful Java client with Apache HttpClient (http://www.mkyong.com/webservices/jax-rs/restful-java-client-with-apache-httpclient/)

Tags: client (http://www.mkyong.com/tag/client/) jax-rs (http://www.mkyong.com/tag/jax-rs/) jersey (http://www.mkyong.com/tag/jersey/) restful (http://www.mkyong.com/tag/restful/)

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(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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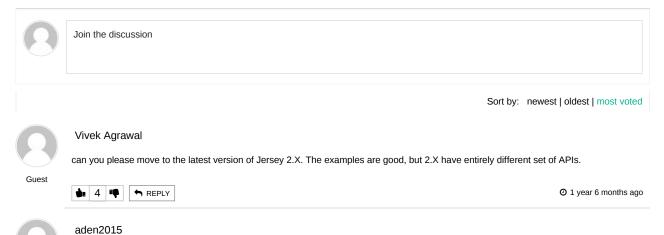
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Guest



Please, how about ssl url

♠ REPLY

1 📭

2 years 10 months ago



Nikhil

Thanks for the wonderful tutorial, Can we have https example like same





O 4 years 5 months ago



Guest

realomok

this is sample that jersey version is v2.26.

how can i do coding that jersey version is v2.25.1?

v2.25.1 has not WebResource package.

jersey v2.25.1 of servlet-class is " org.glassfish.jersey.servlet.ServletContainer ".



10 days 13 hours ago



Dnyaneshwar

Hi Mkyong, When i am saving data to the to the server database using web services using jersey like your second example in my live example in project development i am facing 2 issues: javax.ws.rs.ProcessingException: Unable to invoke request at org.jboss.resteasy.client.jaxrs.engines.ApacheHttpClient4Engine.invok e(ApacheHttpClient4Engine.java:287) at org.jboss.resteasy.client.jaxrs.engines.ApacheHttpClient4Engine.invok e(ApacheHttpClient4Engine.java:283) ... 9 more Caused by: java.net.ConnectException: Connection timed out: connect at java.net.DualStackPlainSocketImpl.connect0(Native Method) at java.net.DualStackPlainSocketImpl.socketConnect(Unknown Source) at java.net.AbstractPlainSocketImpl.doConnect(Unknown Source) Bellow is my sample code: inputStream = Olis.class.getClassLoader().getResourceAsStream(propFileName); try { prop.load(inputStream); } catch (IOException e) { e.printStackTrace(); } String docitURL = prop.getProperty("docit.url"); String docitAuthToken = prop.getProperty("docit.authToken"); if (extracted(inputStream) != null) { prop.load(extracted(inputStream)); } else { throw... Read more »



1 0

Dnyaneshwar

REPLY

I this above exception how could i add timeOut to server

Guest



24 months 24 days ago

O 4 months 24 days ago



Joy

Really a nice example to understand the get and post difference in client and server . Thank u so much .



7 months 2 days ago



Gino

How do I add basic authorization to a header? I tried this but it returns error 500:

Guest

Client client = Client.create():

WebResource webResource = client.resource("http://url/search");

MultivaluedMapImpl values = new MultivaluedMapImpl();

values.add("max", "2");

values.add("table", "abc");

ClientResponse response = webResource.header(HttpHeaders.AUTHORIZATION, "Basic" +

"GVFUCVJFT1BTOkJORjhXMkZQVjloa1BFYQ==")

.accept(MediaType.APPLICATION XML)

.type(MediaType.APPLICATION_FORM_URLENCODED)

.post(ClientResponse.class, values);

Any thoughts?

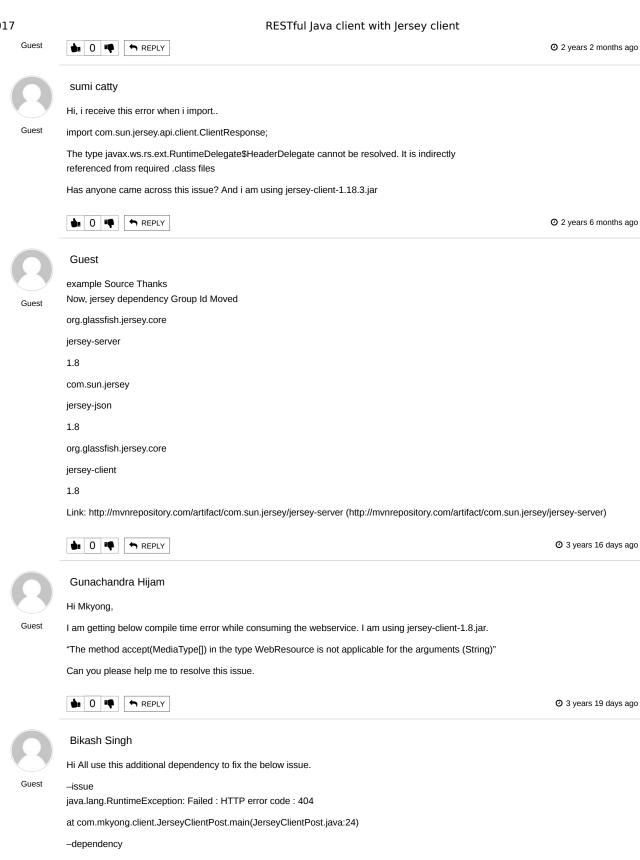


② 2 years 1 month ago



Iris Panabaker (http://imgdj.com)

Nice tool for json htto://jsonformatter.org



com.sun.jersey

jersey-server

1.8



② 3 years 26 days ago



latte

Hello!,

Guest

GET request is working

http://localhost:8080/RESTfulExample/rest/json/metallica/post (http://localhost:8080/RESTfulExample/rest/json/metallica/post) is not. "The specified HTTP method is not allowed for the requested resource."

Also, I see "This element neither has attached source nor attached Javadoc and hence no Javadoc could be found" description when mouse hovers over javax.ws.rs.core.MediaType;

Can anyone help me please?



② 3 years 3 months ago

② 3 years 3 months ago



Guest

dhananjai singh

h

I have a RESTFul OSB service with HTTP method as POST, this service is deployed on web logic server and I have the WADL file for this service. Now I want to invoke this OSB service in my java code by posting a request input xml file. Kindly suggest a possible solution for. Please reply as soon as possible as this is urgent.



Victor

REPLY

Hi, I do:

Guest

ClientResponse response = webResource.type("application/json").accept("application/json").post(ClientResponse.class, input);

Is correct?



② 3 years 4 months ago



Victor

Ηi,

Guest

Please, help me:

ClientResponse response = webResource.type("application/json")

.post(ClientResponse.class, input);

if (response.getStatus() != 201) {

throw new RuntimeException("Failed: HTTP error code: "

+ response.getStatus());

}

Exception:

ago 14, 2014 8:56:19 PM com.sun.jersey.spi.container.ContainerResponse write

SEVERE: The registered message body writers compatible with the MIME media type are:

application/octet-stream ->

Help me please!



② 3 years 4 months ago



AJC

What if a webservice consumes and produces JSON object?

Guest



② 3 years 7 months ago



hi

hi

Guest



② 3 years 8 months ago



Hung Trinh

Dear All,

Guest

I run the file JerseyClientGet.java and got following error:

"java.lang.RuntimeException: Failed: HTTP error code: 401

at com.mkyong.client.JerseyClientGet.main(JerseyClientGet.java:21)"

I got the error when running file JerseyClientPost.java

Could anyone please advice?



② 3 years 9 months ago



Freeman Stokes

Thanks so much for this! I think this is exactly what I need! I will return to let you know if it works for me! Thanks!

Guest



② 3 years 10 months ago



Guest

EFHAJG0

Get the following errors when deploying to running in JBoss with JBoss Developers studios- 11:25:14,985 INFO [org.jboss.as.server.deployment] (MSC service thread 1-4) JBAS015876: Starting deployment of "RESTfulExample.war" 11:25:15,511 WARN [org.jboss.as.server.deployment] (MSC service thread 1-4) JBAS015960: Class Path entry jaxb-api.jar in /C:/Program Files/EAP-6.0.1/jboss-eap-6.0/standalone/deployments/RESTfulExample.war/WEB-INF/lib/jaxb-impl-2.2.3-1.jar does not point to a valid jar for a Class-Path reference. 11:25:15,512 WARN [org.jboss.as.server.deployment] (MSC service thread 1-4) JBAS015960: Class Path entry activation.jar in /C:/Program Files/EAP-6.0.1/jboss-eap-6.0/standalone/deployments/RESTfulExample.war/WEB-INF/lib/jaxb-impl-2.2.3-1.jar does not point to a valid jar for a Class-Path reference. 11:25:15,512 WARN [org.jboss.as.server.deployment] (MSC service thread 1-4) JBAS015960: Class Path entry jsr173 1.0 api.jar in /C:/Program Files/EAP-6.0.1/jboss-eap-

6.0/standalone/deployments/RESTfulExample.war/WEB-INF/lib/jaxb-impl-2.2.3-1.jar does not point to a valid jar... Read more »



② 3 years 11 months ago



kary

Hi, Just wondering how to send a object to a get request?. I need to send a list of many filter parameters which the user selects from UI and get the data back in Response. I can now retrieve data by passing the object in post request but this is wrong way of doing things as what the code actually does is a GET to the server which will retrieve data passing in the list.



O 4 years 15 days ago



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 $\left[...\right]$ RESTful Java client with Jersey client $\left[...\right]$



O 4 years 28 days ago



Orrimp

The tutorial may be simple but its defenitely wrong. How can you say it is RESTful when you use something like @Path("/post"). This is clearly RPC-Hybrid. You still thinking in methods not in resources.

Suggestion: @Path("/album").

Please do not post stuff randomly on your blog. (not the first time)



4 years 3 months ago



Guest

yogesh prajapati

can you provide code which works for HTTPS url, ie for SSL connection.



② 4 years 3 months ago



Thank you! Great and simple tutorial



uest



4 years 4 months ago



nisa

when i try to call post method it gives the error java.lang.RuntimeException: Failed: HTTP error code: 500. Get method is properly works.



4 years 5 months ago



dli7mar@yahoo.com

Hi Mkyong,

Guest

how do I assign the data received from service to a data structure on client side, e.g., XML and JSON data into a List of entity class? Will you please give some sample code?

Thanks in advance.



① 4 years 5 months ago



Vinay Kumar

Thank you for your wonderful tutorial.

Guest

in POST Request, the status check should be for 200, 201 was not working for me.

if (response.getStatus() != 200) {

}



② 4 years 5 months ago



neha

please help me out with this error Http status 404

Guest



4 years 6 months ago



Shashank Awasthi

If running on eclipse, make sure that your project is loaded on the server and the server is turned on.

Guest



② 4 years 4 months ago



Sushil

Hi Neha,

Guest

Did you get any solution ?

I am also facing the same problem.

When I am hitting the browser with URL: "http://localhost:8080/RESTfulExample/rest/json/metallica/get" I am getting a proper result

{"title":"Enter Sandman","singer":"Metallica"}

But when I am trying to run the client code '/RESTfulExample1/src/main/java/com/mkyong/client/JerseyClientGet.java' and trying the client code '/RESTfulExample1/src/main/java/com/mkyong/client/java/code '/RESTfulExample1/src/main/java/code '/RESTfulExample1/src/main/

I am getting the error

java.lang.RuntimeException: Failed: HTTP error code: 404 at com.mkyong.client.JerseyClientGet.main(JerseyClientGet.java:24)

anybody please guide me to get a solution its really getting frustrating.



④ 4 years 6 months ago
 ▲



Piyali

Hi, using the "http://localhost:8080/RESTfulExample/rest/json/metallica/get" url i am facing the following error com.sun.jersey.spi.container.ContainerResponse write SEVERE: A message body writer for Java class com.mkyong.Track, and Java type class com.mkyong.Track, and MIME media type application/json was not found 18 Mar, 2014 2:52:58 PM com.sun.jersey.spi.container.ContainerResponse write SEVERE: The registered message body writers compatible with the MIME media type are: */* -> com.sun.jersey.core.impl.provider.entity.FormProvider com. sun. jersey. core. impl. provider. entity. String Provider com. sun. jersey. core. impl. provider. entity. Byte Array Provider com. sun. jersey. core. impl. provider. entity. Byte Array Provider com. sun. jersey. core. impl. provider. entity. Byte Array Provider com. sun. jersey. core. impl. provider. entity. Byte Array Providcom. sun. jersey. core. impl. provider. entity. File Provider com. sun. jersey. core. impl. provider. entity. Input Stream Provider com. sun. jersey. core. impl. provider. entity. Input Stream Provider com. sun. jersey. core. impl. provider. entity. Input Stream Provider. entity. Entity. entity. Entity. Entcom.sun.jersey.core.impl.provider.entity.DataSourceProvidercom. sun. jersey. core. impl. provider. entity. XMLJAXB Element Provider \$Generalcom.sun.jersey.core.impl.provider.entity.ReaderProvider com.sun.jersey.core.impl.provider.entity.DocumentProvider com.sun.jersey.core.impl.provider.entity.StreamingOutputProvider com.sun.jersey.core.impl.provider.entity.SourceProvider\$SourceWriter com. sun. jersey. server. impl. template. Viewable Message Body Writer and the property of tcom. sun. jersey. core. impl. provider. entity. XMLRoot Element Provider \$Generalcom.sun.jersey.core.impl.provider.entity.XMLListElementProvider\$General 18 Mar, 2014 2:52:58 PM com.sun.jersey.spi.container.ContainerResponse logException SEVERE: Mapped exception to response: 500 (Internal Server Error) javax.ws.rs.WebApplicationException: com.sun.jersey.api.MessageException: A message body writer for Java class com.mkyong.Track, and Java type... Read more »



② 3 years 9 months ago

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