



Consume Dropwizard REST APIs with Jersey/HTTP Client

🛗 Last Updated: January 28, 2022 👚 Dropwizard 🦫 Apache HttpClient, Dropwizard, REST Client

We have already built the REST APIs using dropwizard. Now let's build REST client for consuming REST APIs across the network. Dropwizard includes both Apache HttpClient and Jersey Client. Let's build out them.

Read More: Dropwizard Hello World Application

Maven Dependency

Dropwizard client module is added as separate module.

Dropwizard REST Client Configuration

Dropwizard provide easy to declare and use REST client configuration. You need to create io.dropwizard.client.JerseyClientBuilder instance and give it io.dropwizard.setup.Environment reference.

```
@Override
public void run(Configuration c, Environment e) throws Exception {
    //Here we added REST Resource
    e.jersey().register(new EmployeeRESTController(e.getValidator()));

    //Now we added REST Client Resource named RESTClientController
    final Client client = new JerseyClientBuilder(e).build("DemoRESTClient");
    e.jersey().register(new RESTClientController(client));
}
```

To add HTTP Client, use similar steps as below:

```
@Override
public void run(Configuration c, Environment e) throws Exception {
    //Here we added REST Resource
    e.jersey().register(new EmployeeRESTController(e.getValidator()));

    //Now we added REST Client Resource named RESTClientController
    final HttpClient client = new HttpClientBuilder(e).build("DemoRESTClient");
    e.jersey().register(new RESTClientController(client));
}
```

The default configuration for HttpClientConfiguration is as follows:

timeout: 500ms

connectionTimeout: 500ms

timeToLive: 1 hour

cookiesEnabled: false maxConnections: 1024

maxConnectionsPerRoute: 1024

keepAlive: os

The default configuration for **JerseyClientConfiguration** is as follows:

minThreads: 1 maxThreads: 128 gzipEnabled: true

gzipEnabledForRequests: true

//same as HttpClientConfiguration

timeout: 500ms

connectionTimeout: 500ms

timeToLive: 1 hour

cookiesEnabled: false maxConnections: 1024

maxConnectionsPerRoute: 1024

keepAlive: os

Dropwizard REST Client Resource

Now when you have access to <code>javax.ws.rs.client.Client</code> or <code>org.apache.http.client.HttpClient</code> inside REST client resource

RESTClientController.java, you can library specific methods to call HTTP URIs as usual.

```
package com.howtodoinjava.rest.controller;
import java.util.ArrayList;
import javax.ws.rs.GET;
import javax.ws.rs.Path;
import javax.ws.rs.PathParam;
import javax.ws.rs.Produces;
import javax.ws.rs.client.Client;
import javax.ws.rs.client.Invocation;
import javax.ws.rs.client.WebTarget;
import javax.ws.rs.core.MediaType;
import javax.ws.rs.core.Response;
import com.howtodoinjava.rest.representations.Employee;
```

```
@Produces(MediaType.TEXT_PLAIN)
@Path("/client/")
public class RESTClientController
    private Client client;
    public RESTClientController(Client client) {
        this.client = client;
    }
    @GET
    @Path("/employees/")
    public String getEmployees()
    {
        //Do not hard code in your application
        WebTarget webTarget = client.target("http://localhost:8080/employees");
        Invocation.Builder invocationBuilder = webTarget.reguest(MediaType.APPLICA
        Response response = invocationBuilder.get();
        @SuppressWarnings("rawtypes")
        ArrayList employees = response.readEntity(ArrayList.class);
        return employees.toString();
    }
    @Path("/employees/{id}")
    public String getEmployeeById(@PathParam("id") int id)
    {
        //Do not hard code in your application
        WebTarget webTarget = client.target("http://localhost:8080/employees/"+id);
        Invocation.Builder invocationBuilder = webTarget.request(MediaType.APPLICA
        Response response = invocationBuilder.get();
        Employee employee = response.readEntity(Employee.class);
        return employee.toString();
}
```





After accessing the APIs, I have returned the response in plain text form as show in below image.

Drop Wizard REST Client

I have set the context path of the client resource class to **/client/** to logically separate the URIs of client and service endpoints.

Read More:

Jersey RESTful Client Examples

Apache HttpClient GET/POST Request Examples

Sourcecode Download

Drop me your questions in comments section.

Happy Learning!!

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Yes

No

Further Reading:

1 Testing Authentication with Jersey REST Client

Learn to use Jersey REST client authentication using
HttpAuthenticationFeature, which can be used to access REST APIs behind
authentication security....

2. Jersey Client - Set Cookie Example

In this example, we will learn to set cookies into HTTP requests invoked by Jersey client. This example makes use...

3. Getting Started with Jersey Client

Jersey 2 client API finds inspiration in the proprietary Jersey 1.x Client API. In this Jersey client example, we will...



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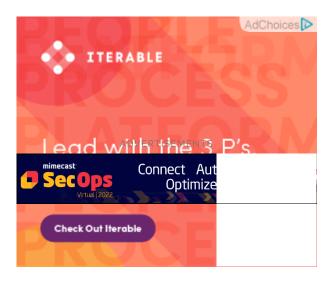
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