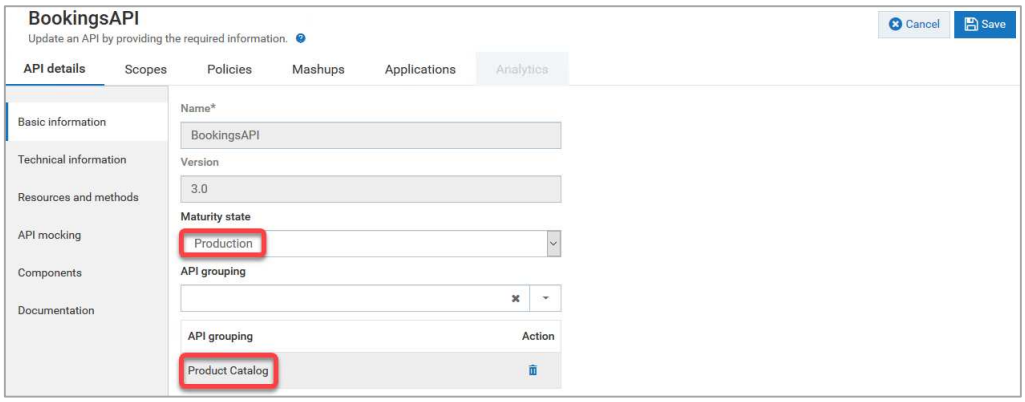
Hands-On Lab:
Publishing SAGTours APIs to Developer Portal

Objectives

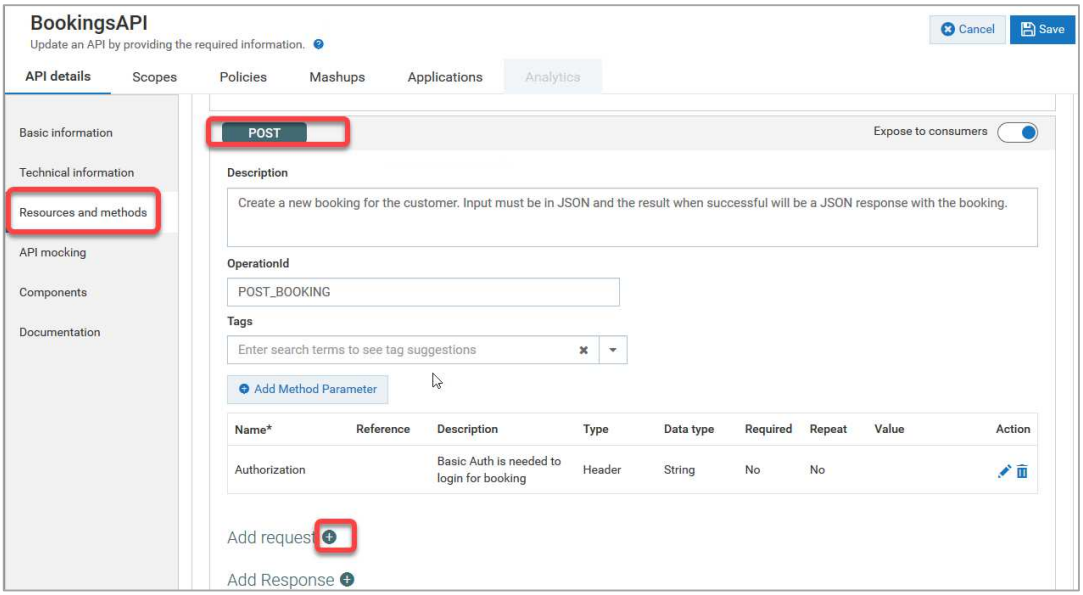
In this hands-on lab, you will first group all three SAGTours REST APIs in API Gateway. Next, acting as the API Gateway Administrator Andy, you will publish the APIs to Developer Portal to expose them to external consumers. Eventually you will test them by using the Try API functionality in Developer Portal.

Steps

1) Open the **Windows Services** panel and double-check that the following services, needed for API Gateway (two instances), the native services, and Developer Portal, are up and running. If a service is not running, start the service.
   a) **Software AG Integration Server 10.11 (default)**
   b) **Software AG Threat Protection Integration Server 10.11**
   c) **Software AG Runtime 10.11**
2) Login to the (internal) **API Gateway** as user **Andy | manage.** Navigate to **APIs** and select the API **BookingsAPI.** Switch over to **Edit** mode and confirm with **Yes**.
   a) Navigate to **API details > Basic information.**
      Adjust the following properties:
      i) Maturity state: **Production**
      ii) API grouping: < *from the API grouping dropdown values select* **Product Catalog** >



b) To provide a sample request body, navigate to **API details** > **Resources and methods** and select the **/bookings** resource. Scroll down to the **POST** method.
Click **Add request +**.

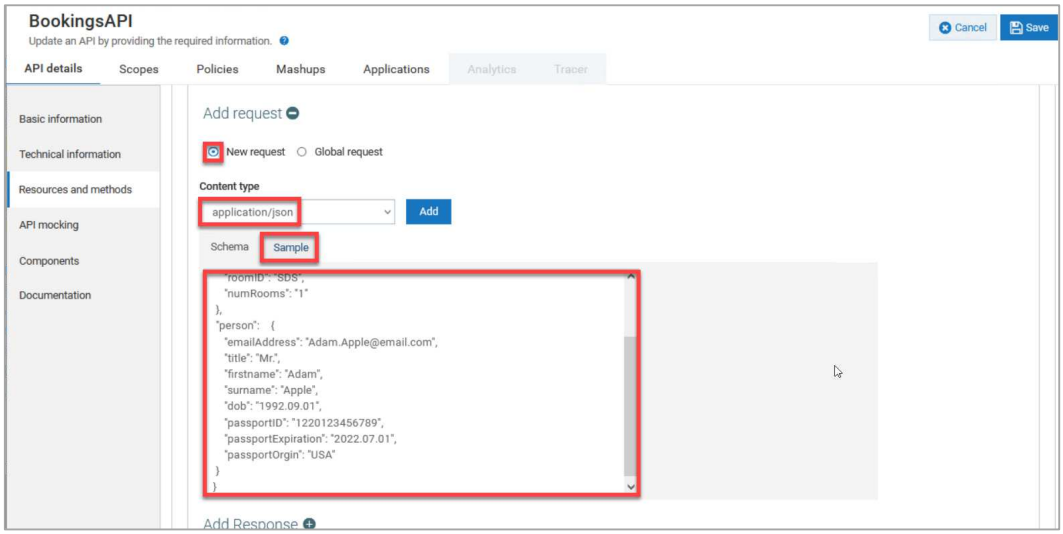


c) Provide the following properties:

i) New request: < ***selected*** >

ii) Content type: **application/json**

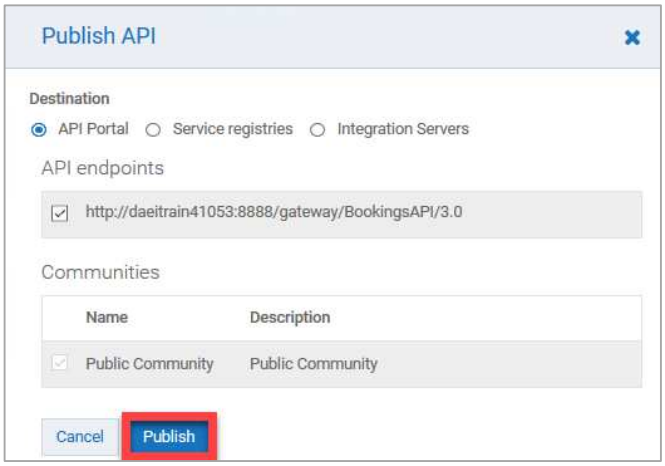
iii) Tab **Sample**: < *copy and paste the request body* **Sample** *for method* **POST** *from file* **BookingsAPI.txt** *as available in folder* **C:\Training\E456B-7BE\Lab15** >



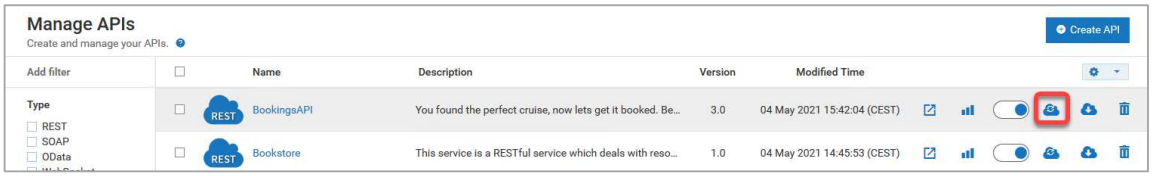
Click on **Add** next to Content type.

d) Click **Save**.

3) In the (internal) API Gateway header menu, click **APIs**. Click the cloud icon with an upper arrow to publish API **BookingsAPI** to Developer Portal. Within the next dialog keep the default settings and click **Publish**.



You will get a success message and the publish icon is replaced by a republish icon.



4) Open API **SearchCruise** in **Edit** mode.

   a) Navigate to **API details** > **Basic information** and adjust the following properties:

      i) Maturity state: **Production**

      ii) API Grouping: **Search**

   b) **Save** your changes.

5) **Publish** the **SearchCruise** API to Developer Portal using the default settings.

6) Open API **SignupAPI** in **Edit** mode.

   a) Navigate to **API details** > **Basic information** and adjust the following properties:

      i) Maturity state: **Production**

      ii) API grouping: **Customer Management**

b) Navigate to **API details** > **Resources and methods** and select resource **/customer**. Scroll down to the **POST** method. Click **Add request +.**

c) Provide the following properties:

i) New request: < ***selected*** >

ii) Content type: **application/json**

iii) Tab **Sample**: < *copy and paste the request body* **Sample** *for method* **POST** *from file* **SignupAPI.txt** *as available in folder* **C:\Training\E456B-7BE\Lab15** >

d) Click on **Add** next to Content type.

e) Navigate to **API Details** > **Resources and methods** and select resource **/customer/{customerID}**.
Scroll down to the **PUT** method. Click **Add request +.**

f) Provide the following properties:

i) New request: < ***selected*** >

ii) Content type: **application/json**

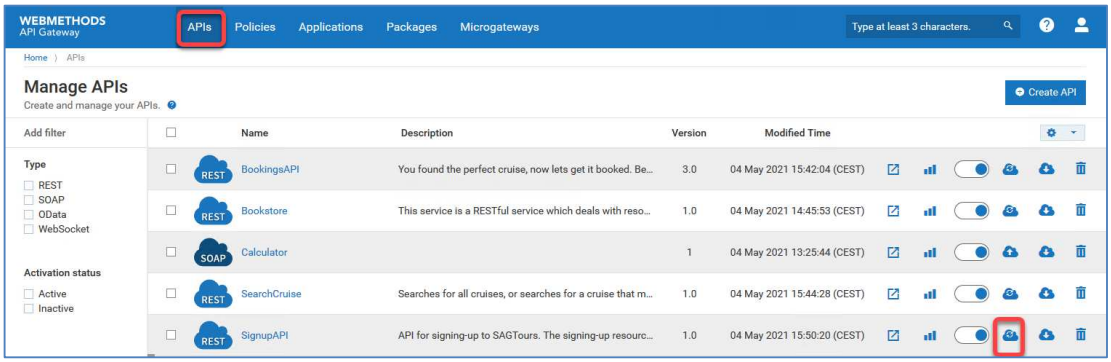
iii) Tab **Sample**: < *copy and paste the request body sample for method* **PUT** *out of file* **SignupAPI.txt** *as available in folder* **C:\Training\E456B-7BE\Lab15** >

g) Click on **Add** next to Content type.

h) **Save** your changes.

7) Still on the API details page, **publish** the **SignupAPI** API to Developer Portal. Use the default settings.

8) Click **APIs** in the (internal) API Gateway header menu to verify its state.

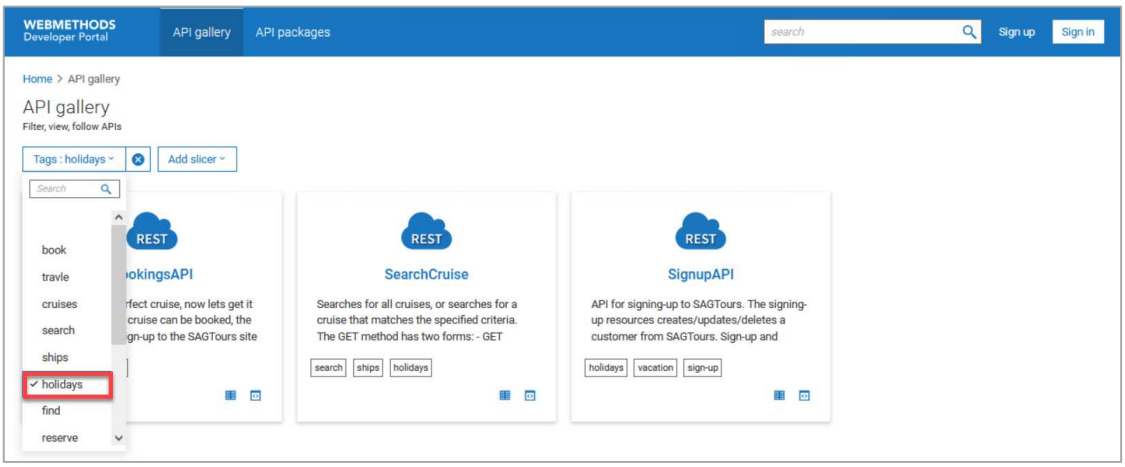


9) In your **Mozilla Firefox** browser, open a new window as **New Private Window** (Crtl+Shift+P).

Note: This helps to avoid caching problems.

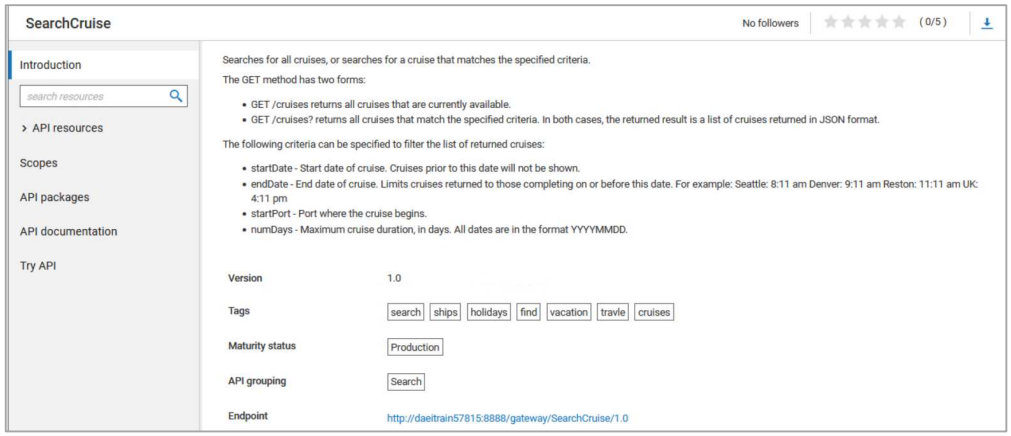
10) Use the new private window to connect to the **Developer Portal** using the URL http://localhost:28101/portal or by using the provided bookmark labeled as **Developer Portal**.

a) To act like a guest user, do not sign-in. Instantly click the **API gallery** link in the header to see the registered APIs. By default, all APIs are listed. For filtering, add a slicer of type **Tags** and filter for all APIs tagged with tag **holidays**.

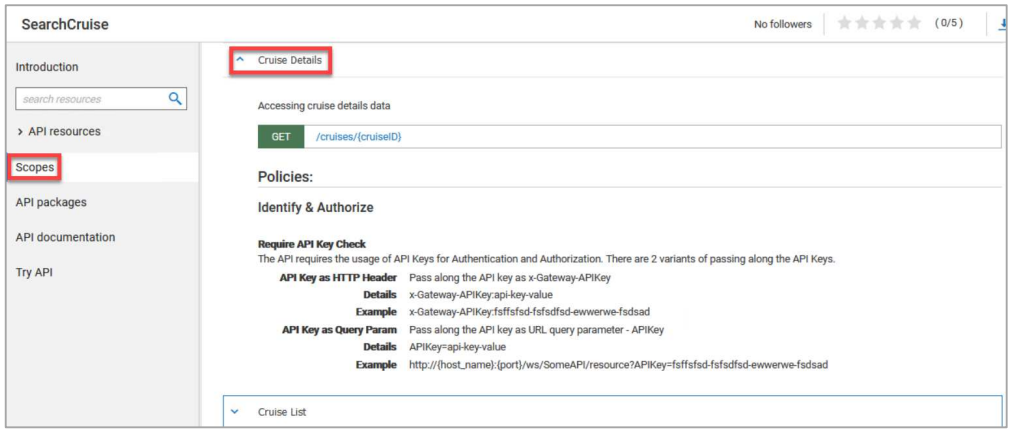


b) From the list of "holidays" APIs open the details view of the **SearchCruise** API. To do so, click its name or use the view icon.

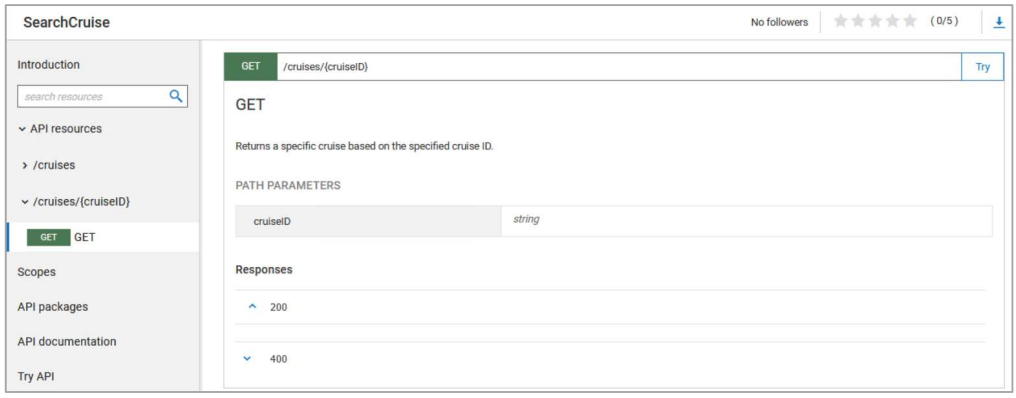
c) On the left-hand side of the API's details view you find a navigation bar, listing the different sections of the API definition/description. By default, section Introduction is preselected. In the center you find the API description, version, tags, maturity status, endpoint, etc.



d) Select **Scopes** from the left-hand navigation. Developer Portal will display the name of the API scopes you defined earlier in API Gateway: **Cruise List** and **Cruise Details**. Explore the scope definition, assigned resources and methods, and the applied policies of scope **Cruise Details.**



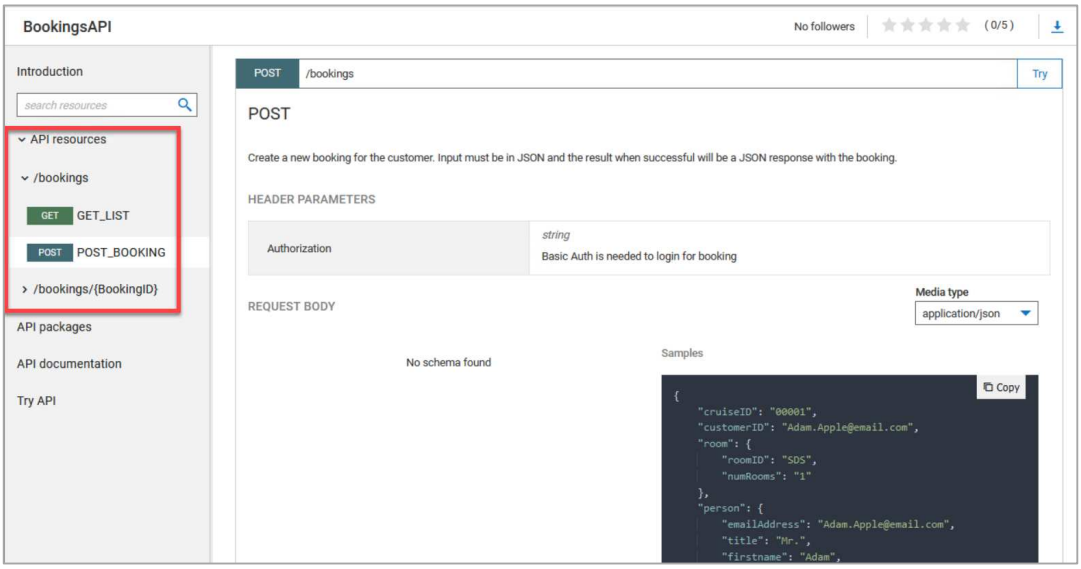
e) Thereafter click on the **GET** method of resource **/cruises/{cruiseID}** to explore its parameters and defined responses.



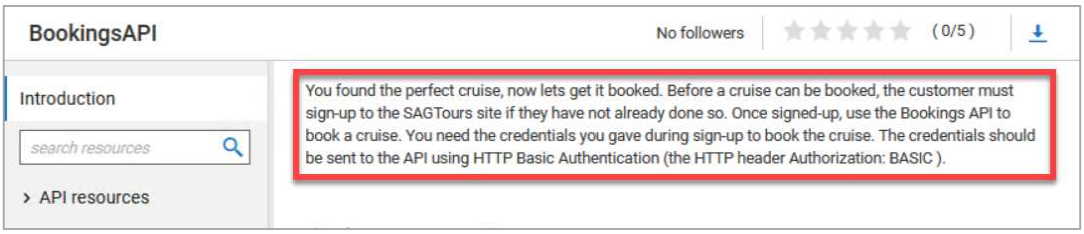
11) In Developer Portal, get back to the **API gallery**.

a) Open the details view of the **BookingsAPI**.

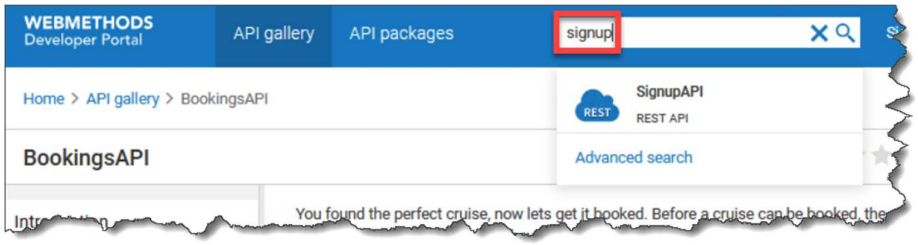
b) Expand **API resources** in the left-hand navigation. All available REST resources and their supported methods as defined in API Gateway are shown. Click on each method to explore its details.



c) Before we test the BookingsAPI from Developer Portal, navigate to the description text shown in the **Introduction** section.
The API developer wrote in this description text that the customer needs to sign-up to the SAG Tours site before he or she can book a cruise using the BookingsAPI. This sign-up must be done by calling the **SignupAPI** in advance.



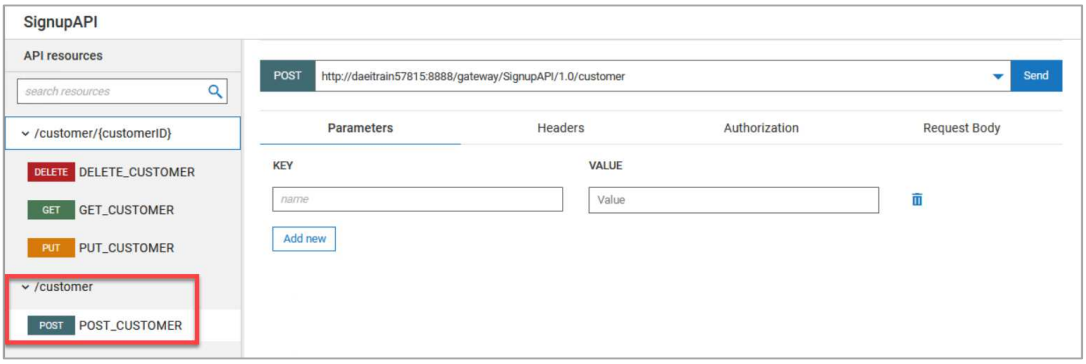
12) Try the search functionality in the Developer Portal header to search for the API **SignupAPI**.



a) Open the API **SignupAPI** from the search result list.

b) Select **Try API** from its left-hand list of links.

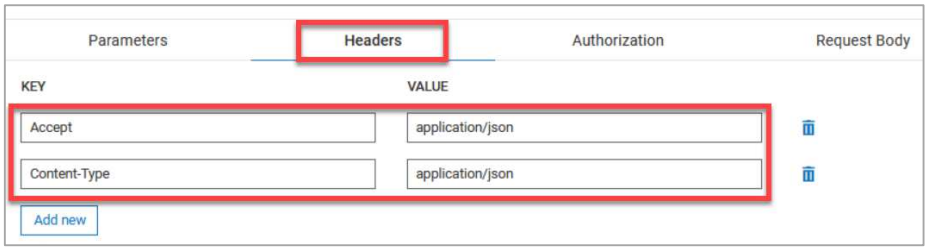
c) Select the REST resource **/customer** and method **POST**.



d) On the **Headers** tab make sure that key-value pairs for **content-type** and for **accept** are set properly:

i) **Content-type**: **application/json**

ii) **Accept**: **application/json**



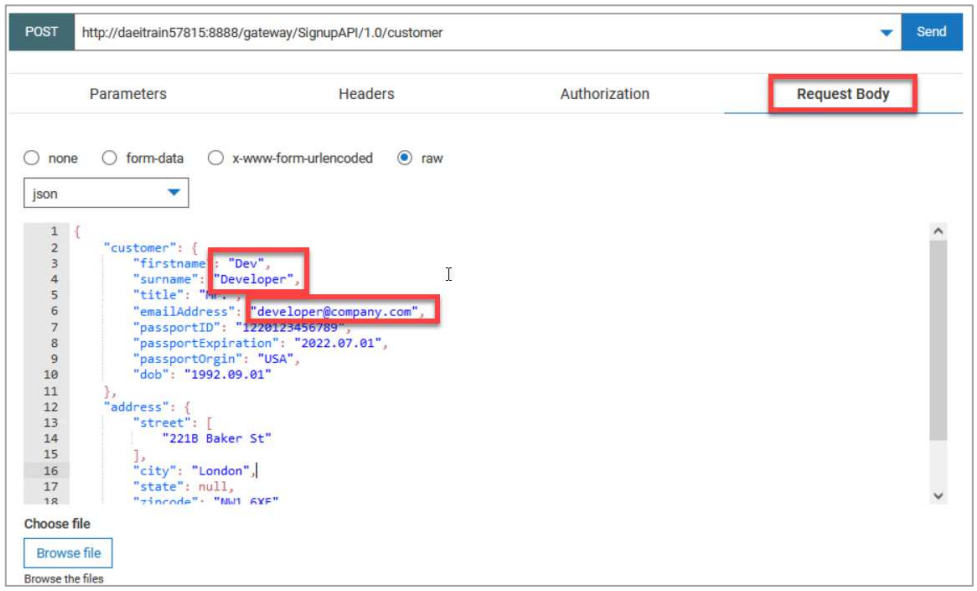
e) On the **Request Body** tab replace the sample values in the request payload with the following customer data:

i) firstname: **Dev**

ii) surname: **Developer**

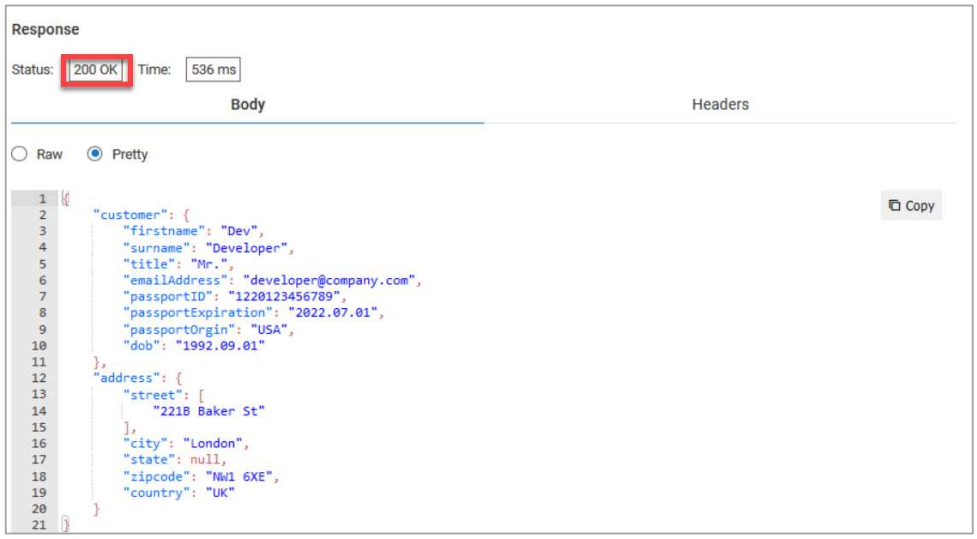
iii) emailAddress: **developer@company.com**

Leave all the other values unchanged.



f) Click the **Send** button.

g) Review the response and verify that the response status is **200**.



Note: By this invocation, a new user/customer has been added to the SAGTours application. The provided email address will be persisted as the new customerID of the SAGTours customer.

13) Let's verify that a new customer has been added correctly to SAGTours:

a) Still in the Try out panel of the **SignupAPI**, select the REST resource **/customer/{customerID}** from the left-hand navigation bar and select method **GET**.

b) On the **Parameters** tab add the following request parameter:

customerID **developer@company.com**

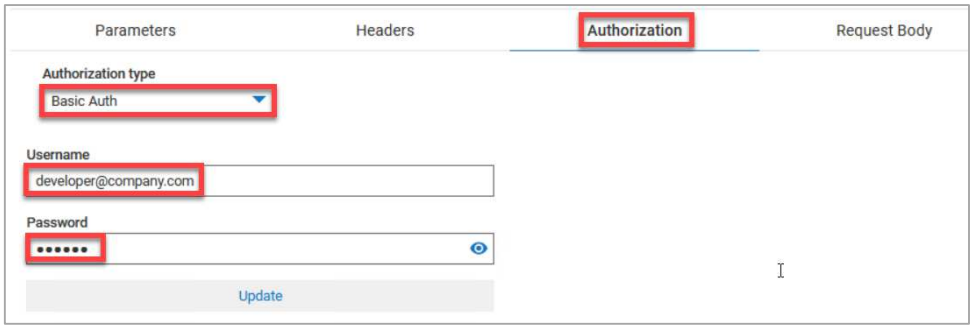
c) On the **Headers** tab provide the following request header:

Accept: **application/json**

d) The implementation of the SAGTours SignupAPI requires basic authentication for this resource-method combination. On the **Authorization** tab, select Authorization type **Basic Auth.** Provide the following credentials:

i) Username: **developer@company.com**

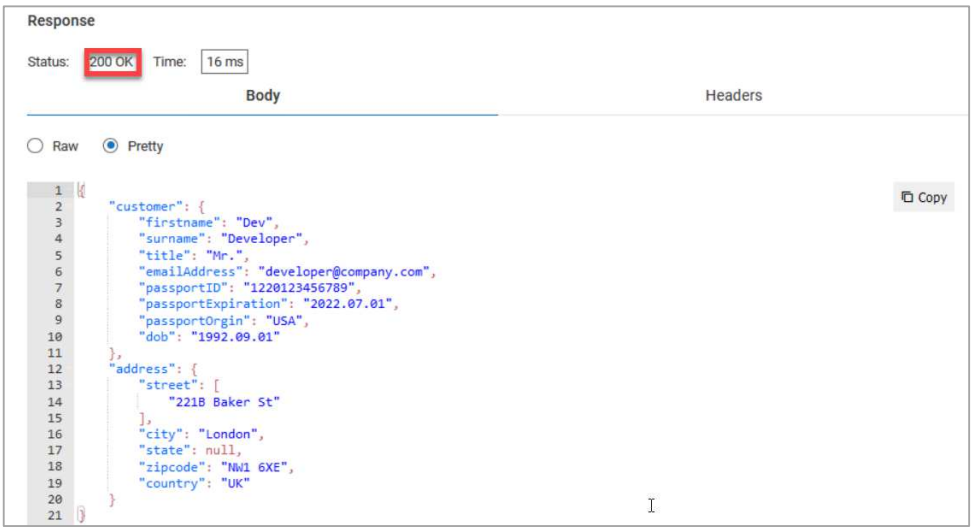
ii) Password: **manage** (won't be checked by the application)



Click on **Update.**

e) Click the **Send** button.

f) Review the response and verify that the response Status is **200**.



Note: If you are getting a native service error with status code 400, close all Mozilla Firefox browser windows and connect to Developer Portal in a fresh browser window. Thereafter try it again.

14) Let's create a booking on behalf of the SAGTours user/customer just been added to SAGTours by using the SignupAPI.

a) Open another private Window in Mozilla Firefox. Connect to **Developer Portal** using the pre-defined bookmark.

b) Act as an (unregistered) Developer Portal guest user**,** so do <u>not</u> sign-in.

c) Open the **BookingsAPI** from the **API gallery** and click the link **Tryout**.

d) Select the REST resource **/bookings** and method **POST**.

e) On the **Headers** tab configure the request headers:

i) **Accept**: **application/json**

ii) **Content-type**: **application/json**

f) On the **Request Body** tab replace the values in the request payload with the user data of our dummy customer created above:

i) emailAddress: **developer@company.com**

ii) firstname: **Dev**

iii) surname: **Developer**

iv) nameOnCreditCard **Dev Developer**

Leave all the other values unchanged.

g) The booking service requires basic authentication. On the **Authorization** tab select Authorization type **Basic Auth.** Provide the following credentials:

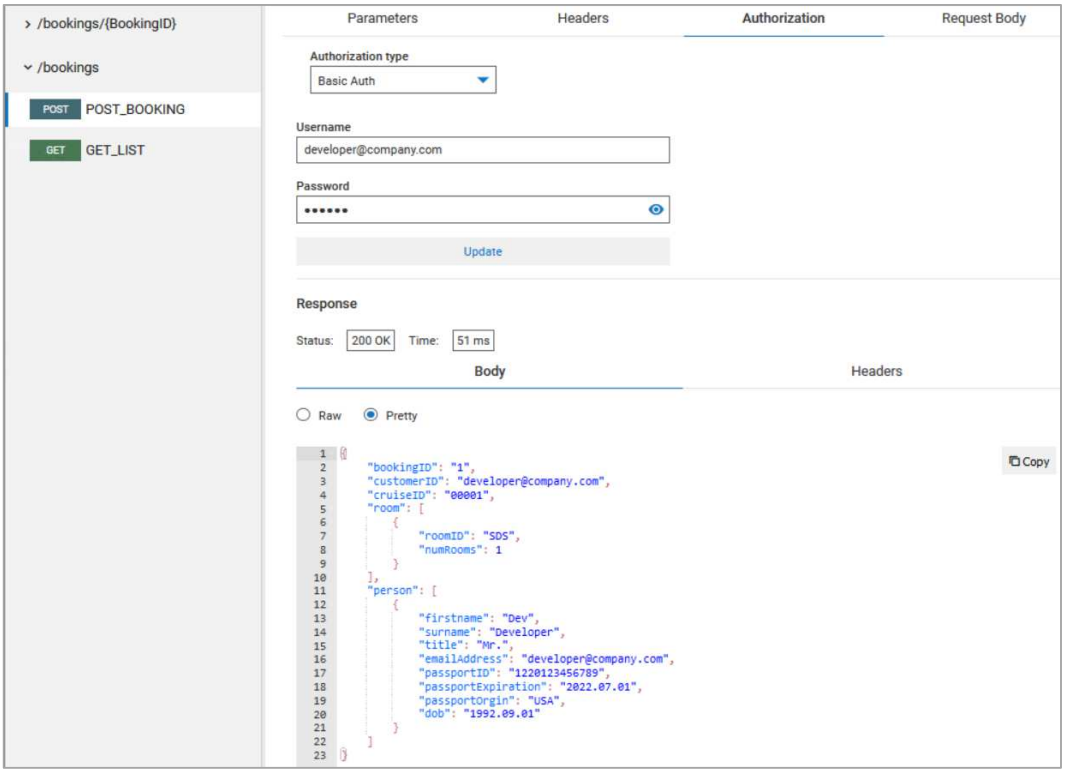
   i) Username: **developer@company.com**

   ii) Password: **manage** (won't be checked by the application):

   Click on **Update**.

h) Click the **Send** button.

i) Review the response and verify that the returned status is **200**.



15) *For extra credit*:

Retrieve all the bookings made by the SAGTours user/customer you have added to SAGTours by using the SignupAPI.

a) Open another private Window in Mozilla Firefox. Connect to **Developer Portal** using the pre-defined bookmark.

b) Act as an (unregistered) API Gateway guest user**,** so do <u>not</u> sign-in.

c) Open the **BookingsAPI** from the **API gallery** and click the link **Tryout**.

d) Select the REST resource **/bookings** and method **GET**.

e) On the **Headers** tab configure the request headers:

   i) **Accept**: **application/json**

   ii) **Content-type**: **application/json**

f) The booking service still requires basic authentication. On the **Authorization** tab select Authorization type **Basic Auth.** Provide the following credentials:

   i) Username: **developer@company.com**

   ii) Password: **manage** (won't be checked by the application):

   Click on **Update**.

g) Click the **Send** button.

h) Review the response and verify that the returned status is **200**.