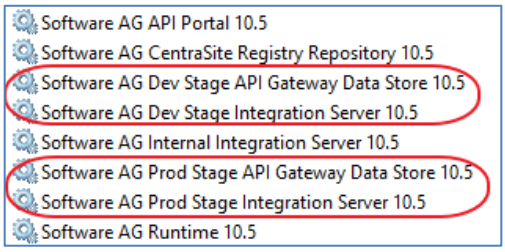
Hands-on Lab:
Prepare Bookstore API on API Gateway

Objectives

In this hands-on lab, you will prepare the virtual machine and create and test four REST APIs on **API Gateway Dev Stage**. You will also create two **API Gateway** user accounts. These APIs and user accounts will be used later for demonstrating different approaches for staging and promoting **API Gateway** assets from the **API Gateway Dev Stage** to **API Gateway Prod Stage**.

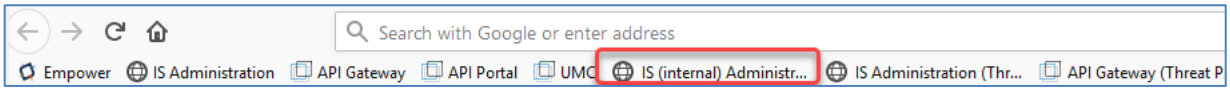
Steps

1. Open the **Windows Explorer** and navigate to **C:\Training\E456C04-75E\setup**.
2. Right-click file **Rename_IS-Services.bat** and select **Run as administrator**. This will rename the existing Windows services for the two API Gateway instances on this VM to Software AG Dev Stage and Software AG Prod Stage.



3. Open **Windows Services UI** to double check that the following services, needed for API Gateway and the native services, are up and running. If service is not running, start the service.
   a. **Software AG Dev Stage Integration Server 10.5**
   b. **Software AG Prod Stage Integration Server 10.5**
   c. **Software AG Internal Integration Server 10.5**
4. You can monitor the progress of the Integration Server startup sequence in **Baretail** by opening the following logfiles in **Baretail**:
   a. **C:\SoftwareAG\IntegrationServer\instances\default\logs\server.log**
   b. **C:\SoftwareAGThreatProtection\IntegrationServer\instances\default\logs\server.log**
   c. **C:\SoftwareAGInternal\IntegrationServer\instances\default\logs\server.log**
5. Login to **Internal Integration Server Administration** by opening **Firefox** and clicking the **IS (internal) Administration** link (just below the URL field). Login as Administrator (**Administrator / manage**).

> *Note*: The Integration Server takes a few minutes to start, therefore you may have to refresh the Administration page until you are asked to login.



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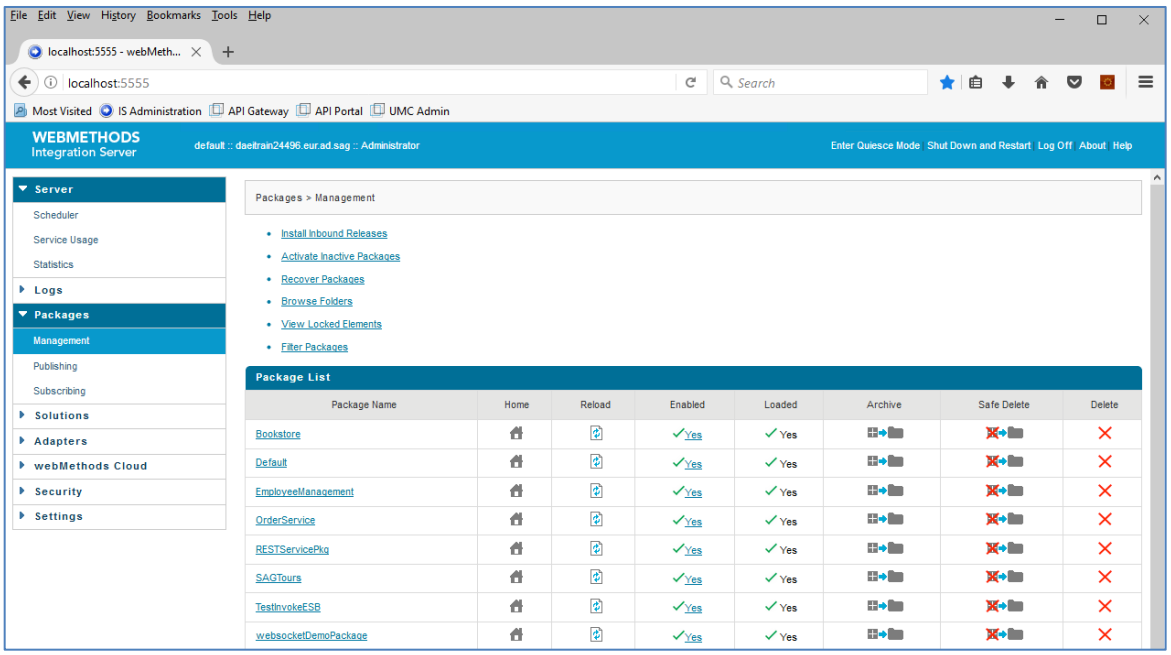
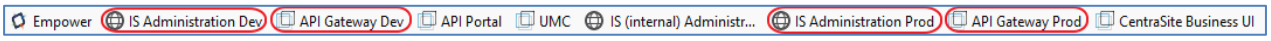
6. Select **Packages > Management** and enable the IS package **Bookstore.**



7. Open the **Windows Explorer** and navigate to **C:\Training\E456C04-75E\setup**.
8. Right-click file **Create_Initial_Backup_PROD.bat** and select **Run as administrator**. This will create an initial (empty) backup of the **API Gateway Prod Stage** database which can be restored later in order to reset the **API Gateway** to the initial (empty) stage.
9. Start **Mozilla Firefox** and rename the following links in the **Bookmarks Toolbar**:
   a. Rename **IS Administration** to **IS Administration Dev**
   b. Rename **API Gateway** to **API Gateway Dev**
   c. Rename **IS Administration (Threat Protection)** to I**S Administration Prod**
   d. Rename **API Gateway (Threat Protection)** to **API Gateway Prod**



10. Logon to **API Gateway Dev** as user **Administrator/manage**.
11. For the following hands-on labs, you have to allow HTTP requests for JSON web tokens, OAuth2 tokens and OpenID Connect tokens. By default, these requests are only allowed through HTTPS. In the User Menu, select **Administration**. Navigate **to General > Extended settings**. Click on **Show and hide keys.** Select **pg_jwt_isHTTPS, pg_oauth2_isHTTPS** and **pg_OpenID_isHTTPS.**

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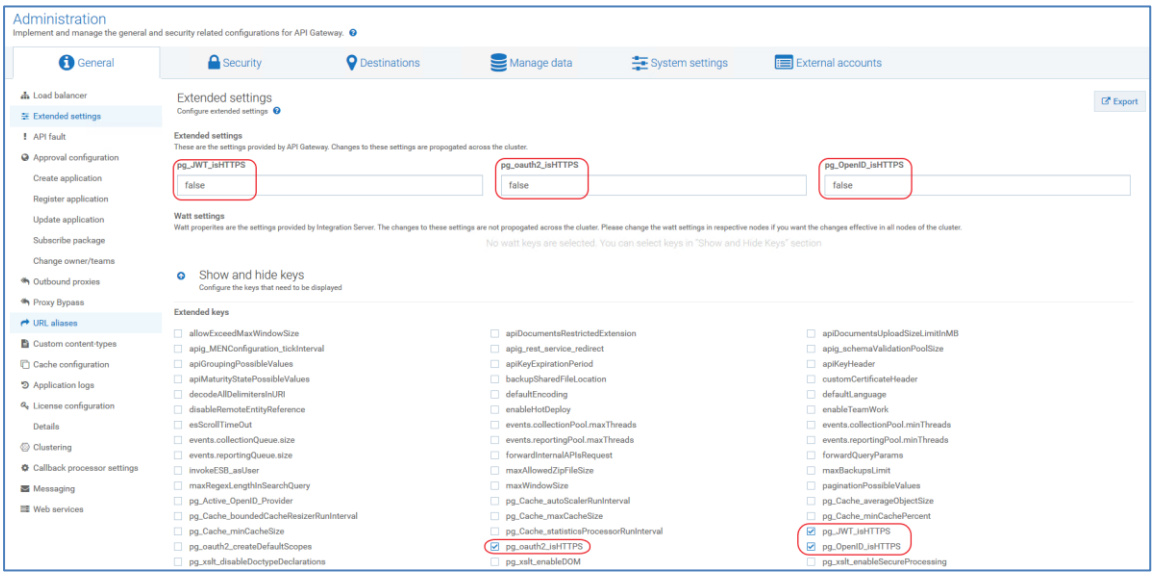
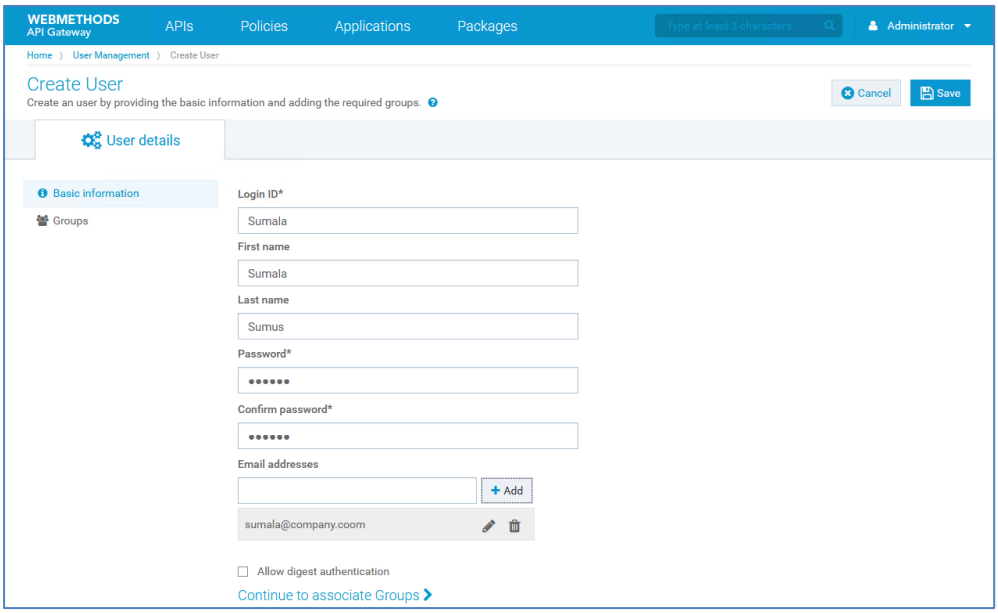
12. Adapt the following settings:
    a. **pg_jwt_isHTTPS**: false
    b. **pg_oauth2_isHTTPS**: false
    c. **pg_OpenID_isHTTPS**: false



Save your adaptions.

13. In the User Menu, navigate to **User management**.
14. Within the **Users** tab click **Add user**. Provide the following properties:
    a. **Login ID:** Sumala
    b. **First Name**: Sumala
    c. **Last Name**: Sumus
    d. **Password:** manage
    e. **Email Address:** sumala@company.com.
    Click **+Add** next to the Email address.



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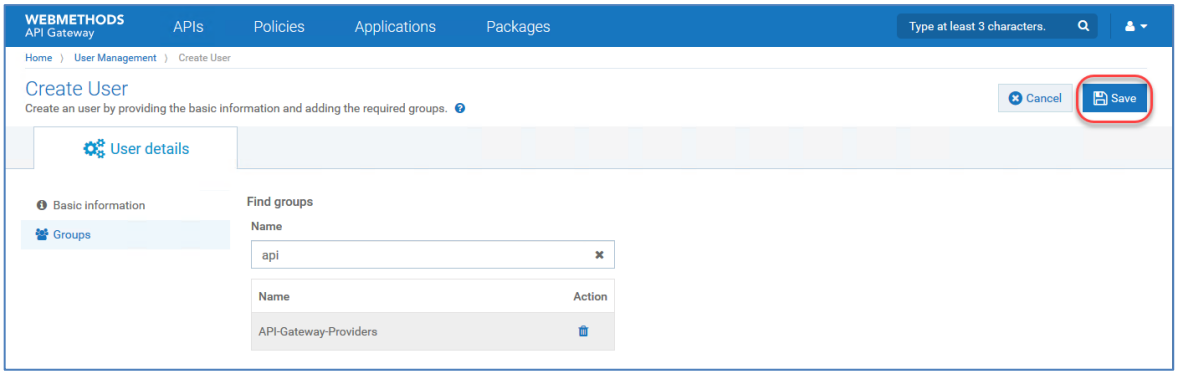
15. Click **Continue to associate Groups >**. Add **Sumala** to group **API-Gateway-Providers**.



Click **Save.**

16. Within the **Users** tab click **Add user** again to create an administrative user. Provide the following properties:

    a. **Login ID:** Andy

    b. **First Name**: Andy

    c. **Last Name**: Roth

    d. **Password:** manage

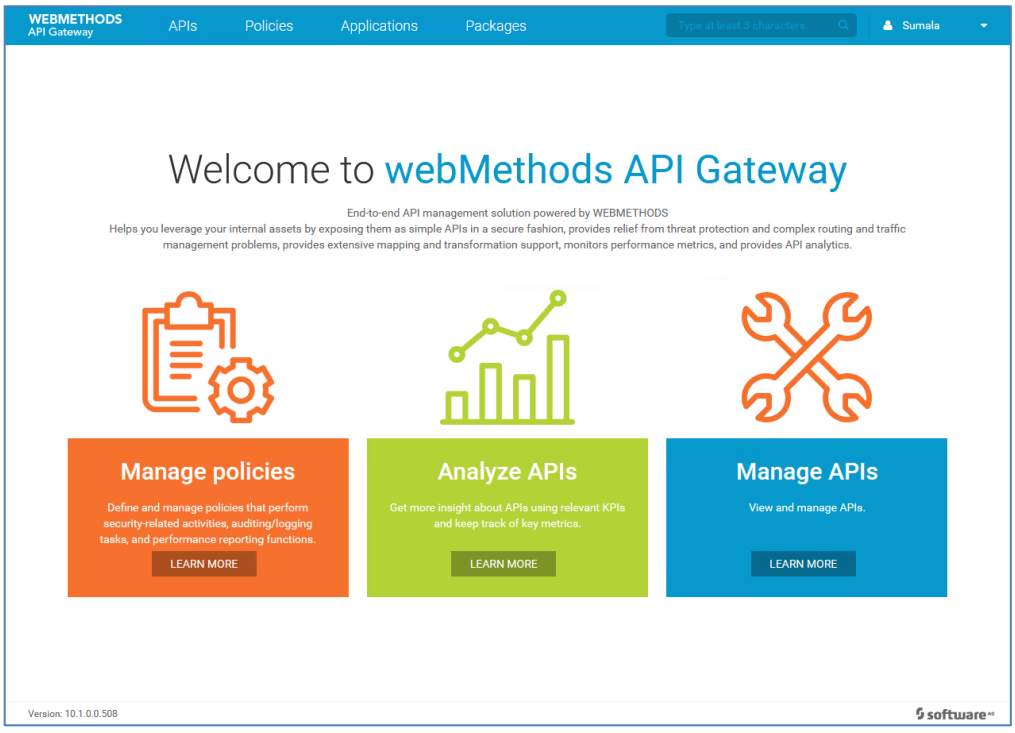
    e. **Email Address:** andy@company.com

    Click **+Add** next to the Email address.

17. Click **Continue to associate Groups >**. Add Andy to group **API-Gateway-Administrators**. Click **Save.**

18. Logout from API Gateway and login as **Sumala / manage**.

19. Create a new API of type **REST** with name **Bookstore** using the import functionality of API Gateway. Click **Manage API** within the Home Page…



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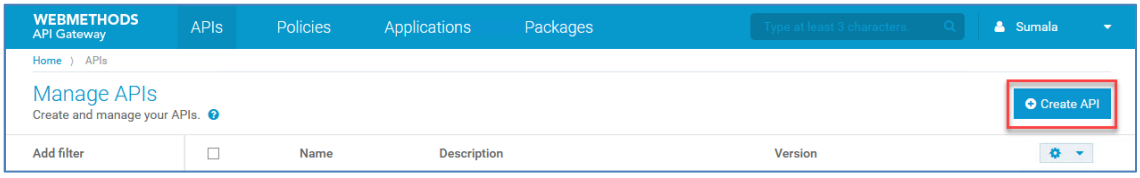
… or navigate to **APIs** in the header section.

20. Click **Create API**.



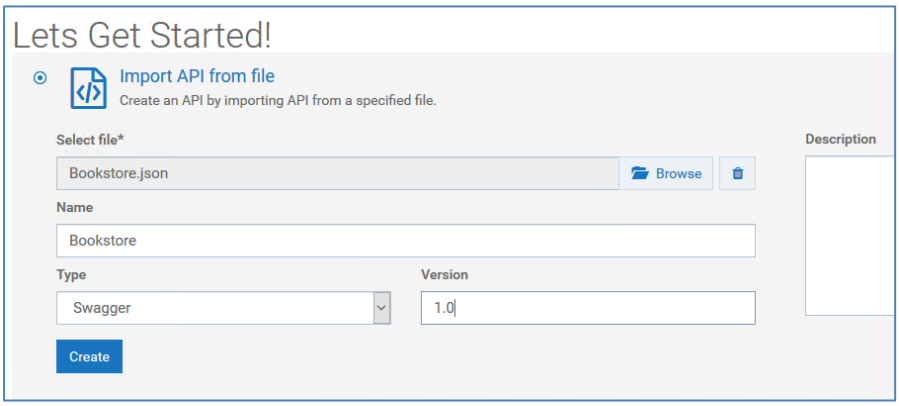
A shortcut to this would be using the **Create API** on the Home page.

21. We would like to import a REST API from file. Therefore, we leave the default selection. Within the **Import API from File** section click **Browse**. Navigate to **C:\Training\E456C04-75E\Lab1** and select **Bookstore.json**. Click **Open**. Provide the following properties:

    a. **Name**: Bookstore

    b. **Type:** Swagger

    c. **Version**: 1.0



Click **Create.**

22. Click **Edit.**

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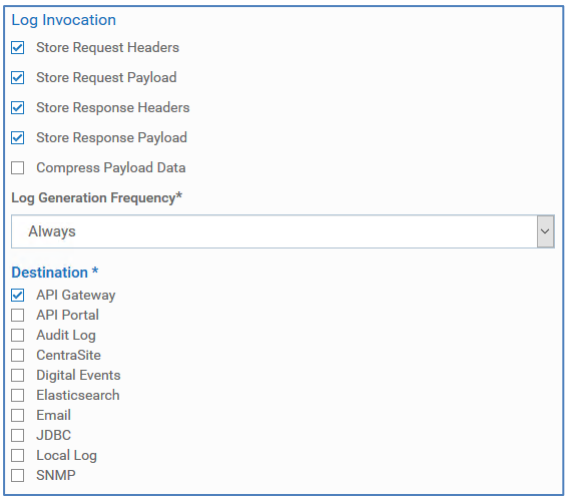
23. Navigate to **Policies > Traffic Monitoring**. Add a Log Invocation policy with the following properties:

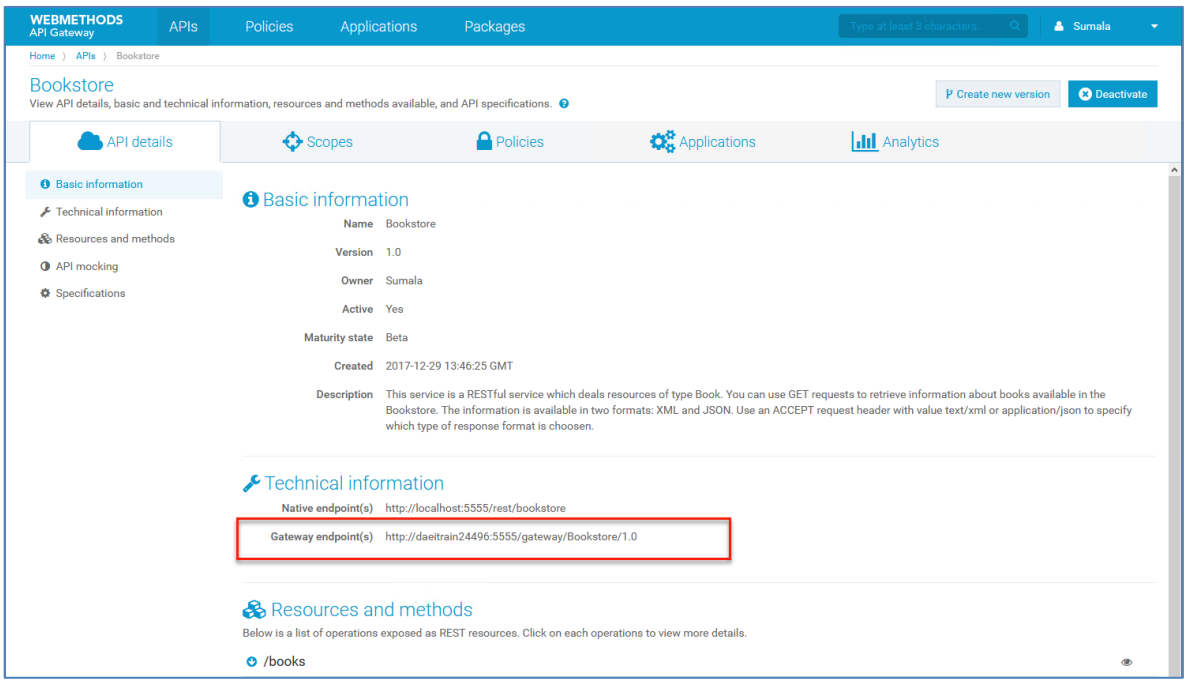
    a. **Store Request Headers:** - select -
    b. **Store Request Payload:** - select -
    c. **Store Response Headers**: - select -
    d. **Store Response Payload**: - select -
    e. **Log Generation Frequency**: Always
    f. **Destination**: API Gateway



24. Click **Save.**

25. Click **Activate**. Click **Yes**.

26. Review the API details. Scroll down to **Technical Information** to get the gateway endpoint.



27. Open **Resources and methods** to review the registered Resources. Select the resource **/books** to view the resource information and the assigned methods.

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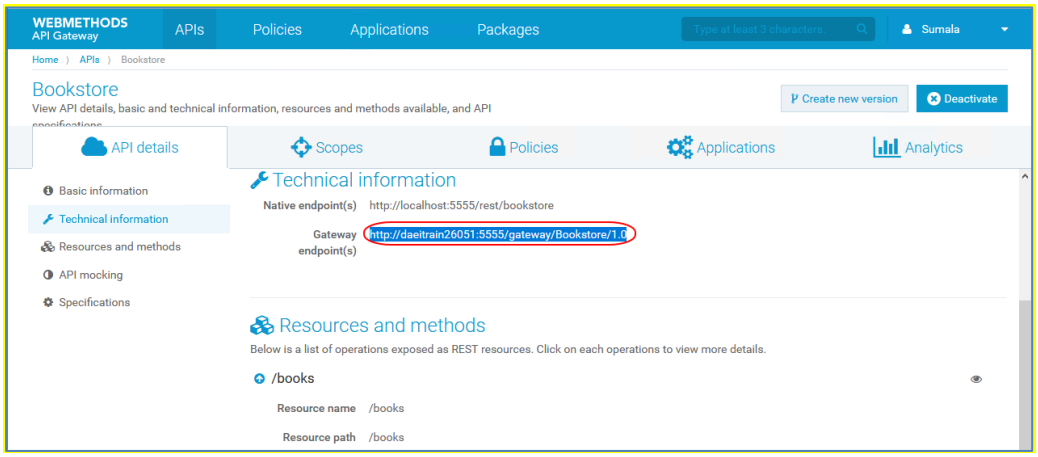
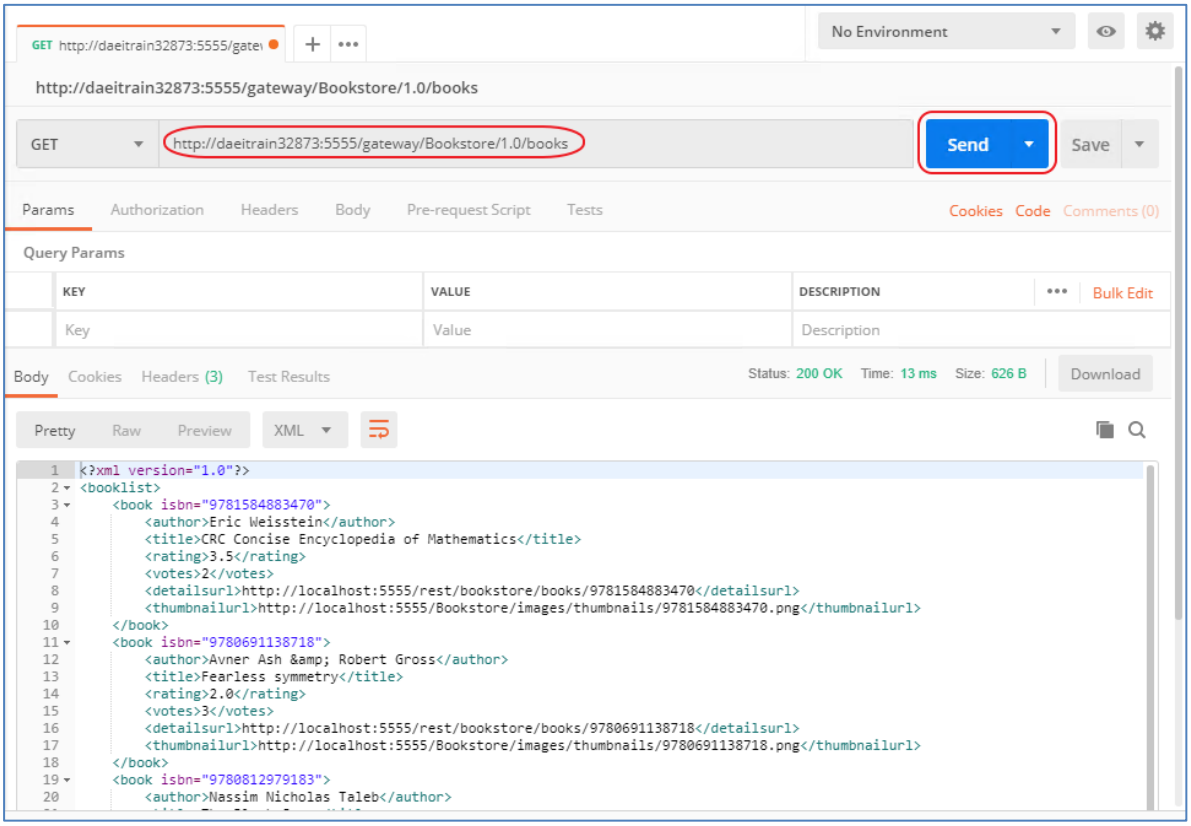
28. Explore consuming this API:

    a. Copy the Gateway URL as shown, then open the Postman REST client.



    b. Paste the URL into the REST client and append “/books” to the URL; then click “Send”.



29. Repeat steps 19 to 25 (and 26 to 28 if you like) to create and activate the following APIs based on the same **Bookstore.json** Swagger file:

    a. **Bookstore_ApiKey**

    b. **Bookstore_BasicAuth**

    c. **Bookstore_OAuth2**

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