

## Configure an external Web Service (REST)

Create an Implementation Project named **GraphiteGTCGuide StockMarket** that uses the base GraphiteGTC.Core Library.

In the Project Home Screen, create a Category named **Holidays**. You can now configure a REST Web Service using the following OpenAPI (formerly Swagger) document in Graphite Studio.

<http://graphitegtc.com/rest/api-docs/swagger.json>

Using the **Add/Edit** drop down menu within the Holidays category, click on the **Add Web Service** link to navigate to the **Add Web Service** Screen. The following figure shows a new Add Web Service Screen.

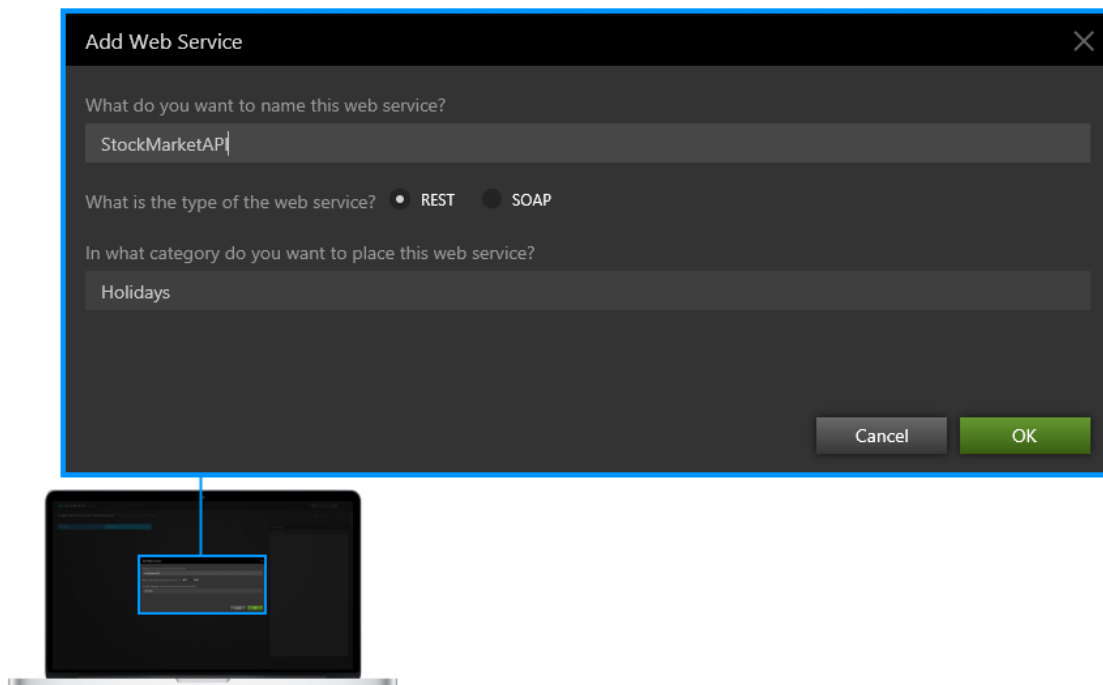


Figure 1: Add Web Service

Enter **StockMarketAPI** in the **What do you want to name this web server?** field. In the **What is the type of the web service?** field leave selected option as **REST**. Click **OK** to navigate to StockMarketAPI Web Service Screen.

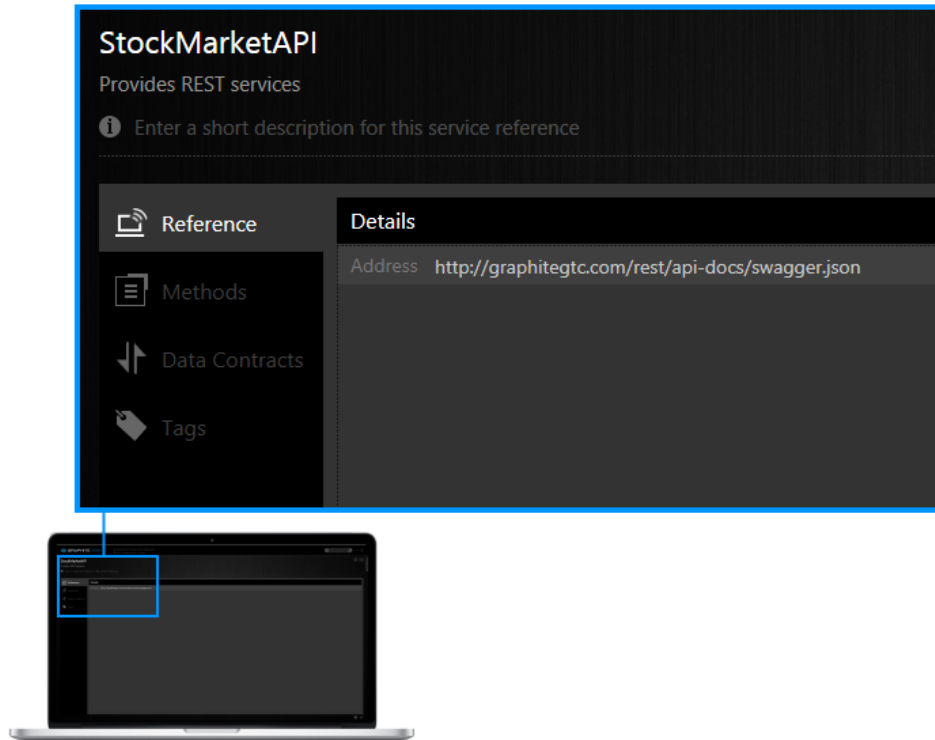


Figure 2: StockMarketAPI Web Service

Enter the URL of the OpenAPI document shown above in the **Address** field and save this Web Service artifact. Click the **Methods** tab to add the Service Method that you will need for this project.

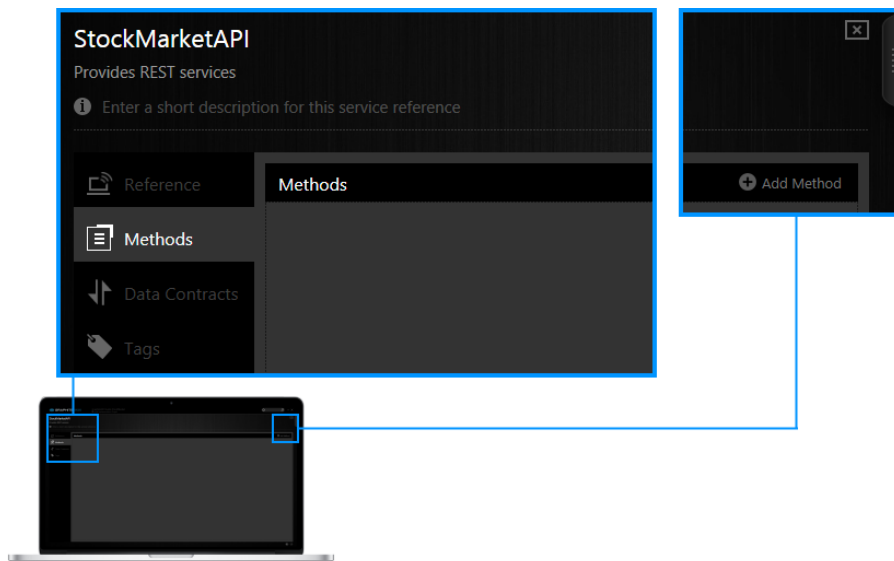


Figure 3: Web Service Methods

Click the **Add Method** link to add the Service Method that will get the market holidays in a year. The following figure shows a new Service Method Screen.

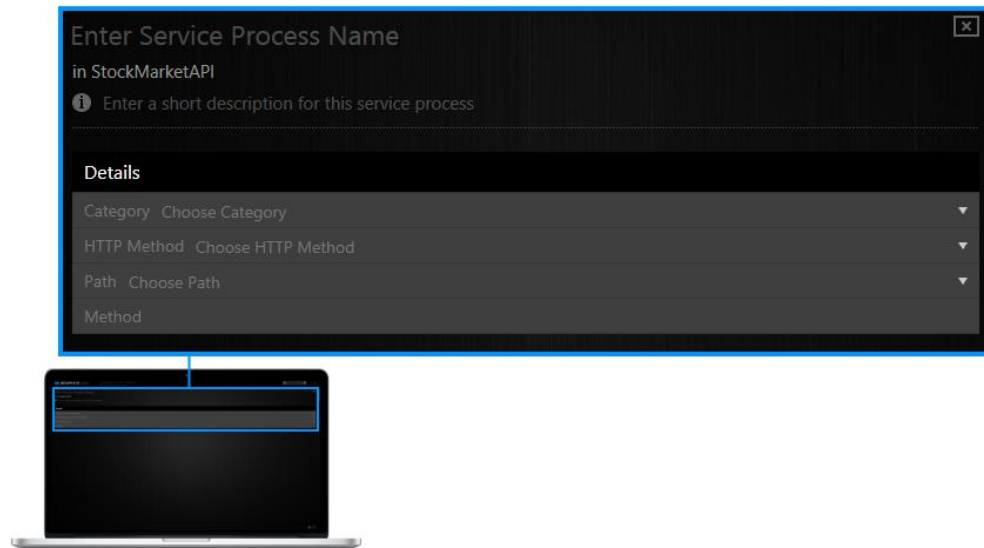


Figure 4: Add Web Method

Enter **GetMarketHolidays** in the **Enter Service Method Name**. Choose **Market Holiday** for **Category**, **Get** for **HTTP Method**, **rest/MarketHoliday/{year}** for **Path**. The following figure shows the details of the chosen REST method.

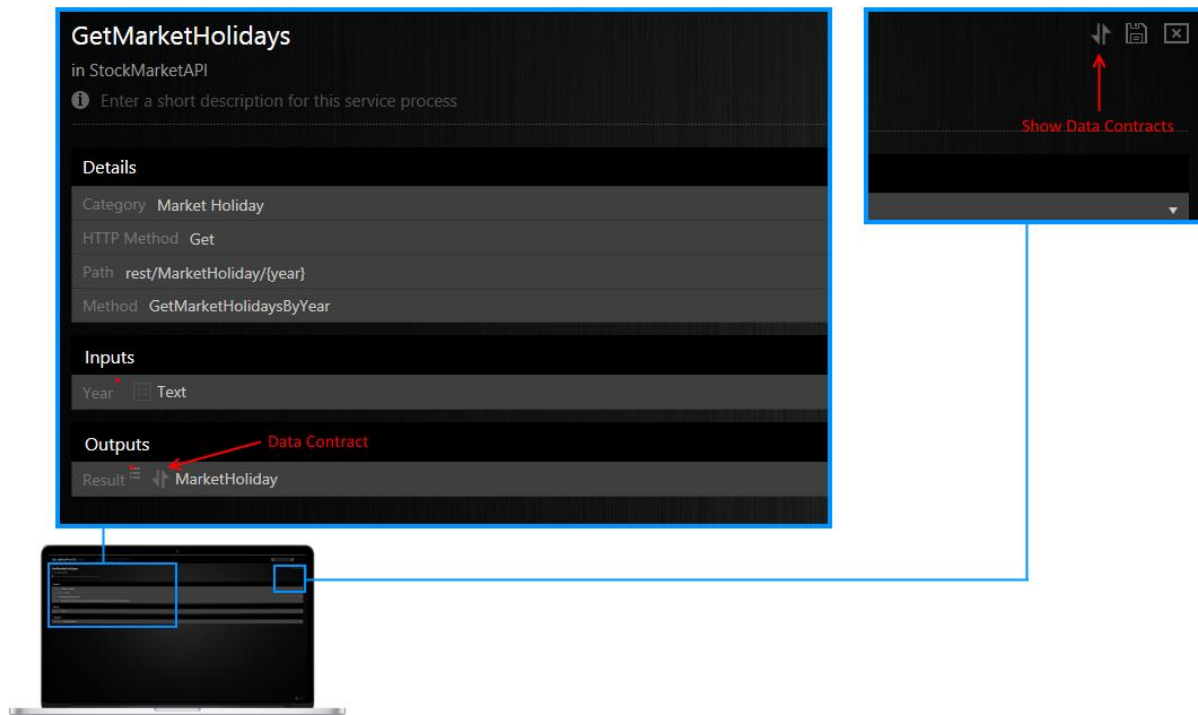


Figure 5: Get Market Holidays




Once the REST method is chosen, Graphite Studio displays its details from the OpenAPI contract. These details include the Inputs and the Outputs of the method. A review of the details shows that the type of the Output is not an Entity (MarketHoliday) that exists in the

Project. Graphite Studio identifies all the structures needed for this Service Method and automatically creates the Data Contract artifacts for transferring data to and from the REST service.

The **Show Data Contracts** icon (upper right corner) will display a dialog that lists all the Data Contracts created for the Service Method.

Save the Service Method.

Following are the icons of the Service Method screen.

	<p>The <b>Show Data Contracts</b> icon will display a dialog which lists all the Data Contract artifacts that will be created automatically by Graphite Studio. These Data Contracts will not be persisted in the database.</p>
	<p>The <b>Data Contract Warnings</b> icon will display all the issues encountered during the creation of each Data Contract. Graphite Studio will ignore Data Contract properties that it could automatically create.</p>
	<p>The <b>Edit Service Method</b> icon provides a way to edit the details of the Service Method. Since editing the details of the REST method initiates network traffic Graphite Studio makes editing the Service Method an explicit operation.</p>

*Table 1: Service Method Icons*

The following Data Contract has now been created in the Project.

### MarketHoliday

Name	Type	List	Required
DayOfWeek	Text	N	N
MarketDate	Date	N	N
Name	Text	N	N

*Table 2: Data Contract- MarketHoliday*

All the Data Contracts list for each Web Service are listed in the Data Contracts tab. They are also available in the Category Content Section.

The Web Service is now ready for use.