

SEC Yield Customer API Code Challenge

Revision History

Author	Revision Number	Date
TCSDEVELOPER	1.0	2016-08-20



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1. Organization of Submission

customerapi

The customer REST API module.

docs

Contains deployment guides and Postman collection files.

seccommons

The common code module.

secyieldapi

The SEC Yield REST API module.

test data

Contains sql scripts that populate the db with test data.

README.md

The project documentation in Markdown format.

2. Prerequisites

Java 8 http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html

Tomcat 8 https://tomcat.apache.org/download-80.cgi

Maven https://maven.apache.org/download.cgi

MySQL https://www.mysql.com/

3. Configuration

secyieldapi module

These are the most important variables that can be configured for **secyleldapi** module:

Name	Location	Description	Example value
secyieldserviceimpl.max NumberOfSecurityData	secyieldapi/src/main/res ources/constants.proper		100
	ties	returned by the API	

customerapi module

These are the most important variables that can be configured for **customerapi** module:

Name	Location	Description	Example value
operationScale	customerapi/src/main/re sources/constants.prope	•	7



	rties	engines	
roundingMode	customerapi/src/main/re sources/constants.prope rties	The rounding mode used by calculator engines	4
mysql.url	customerapi/src/main/re sources/db.properties	The MySQL url	jdbc:mysql:// <u>localhost</u> :3 306/ <u>secyield</u>
mysql.username	customerapi/src/main/re sources/db.properties	The MySQL username	root
mysql.password	customerapi/src/main/re sources/db.properties	The MySQL password	passwd

For tests, make sure you provide the correct db credentials in customerapi/src/main/resources/applicationContext-test.xml:

4. Application Setup

Follow these steps to get the APIs running:

Connect to MySQL:

\$ mysql -u root -p

Create "secyield" and "test-secyield" dbs if they doesn't exist ("test-secyield" db is used for integration tests):

```
mysql> CREATE SCHEMA `secyield`;
mysql> CREATE SCHEMA `test-secyield`;
```

In seccommons folder, run the following command:

\$ mvn clean install

In customerapi folder, run the following commands:



\$ mvn clean install

\$ mvn spring-boot:run

In the mysql command line, switch to "secyield" db:

mysql> use secyield;

Populate the db with test data:

mysql> source <path to test data>;

where <path_to_test_data> is the absolute path to test_data/test_data.sql.

In secyieldapi folder, run the following commands:

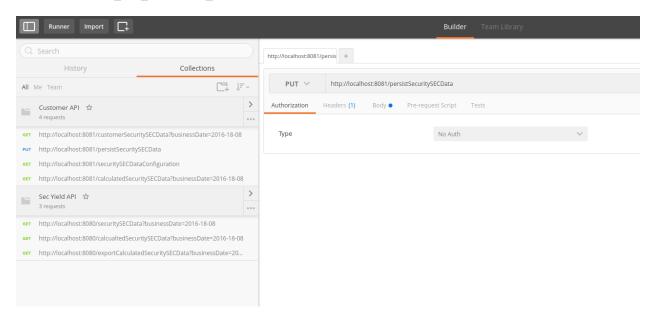
\$ mvn clean install

\$ mvn spring-boot:run

5. Verification

All input dates for the 2 REST APIs must follow this format: yyyy-dd-MM (see com.csa.apex.secyield.utility.Constants.API_DATE_FORMAT).

Open docs/sec_yield_api_postman_collection.json and docs/customer_api_postman_collection.json in Postman application



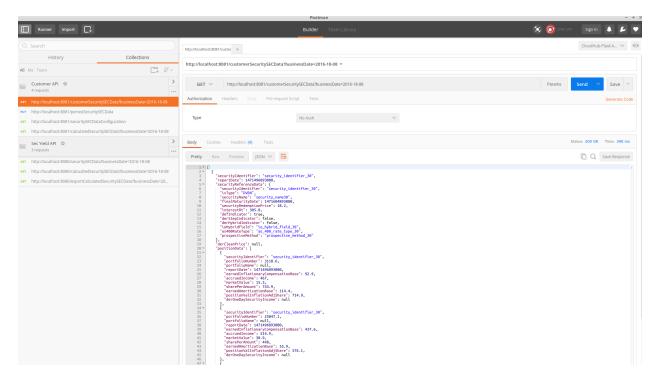
FYI, the test data contains data between 2016-15-08 and 2016-19-08.

Customer API

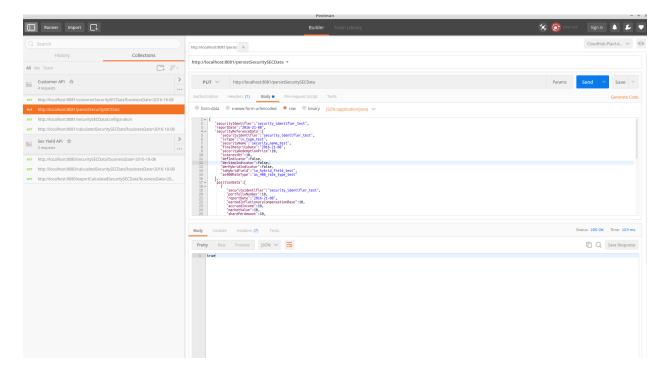
GET /customerSecuritySECData



Gets the customer SEC security data (without yield and income calculated).

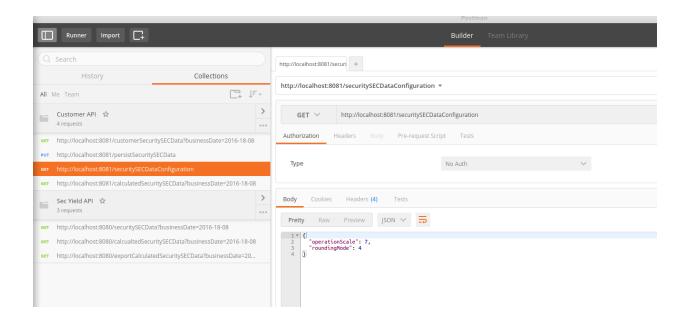


PUT /persistSecuritySECData Persists the calculated SEC security data.

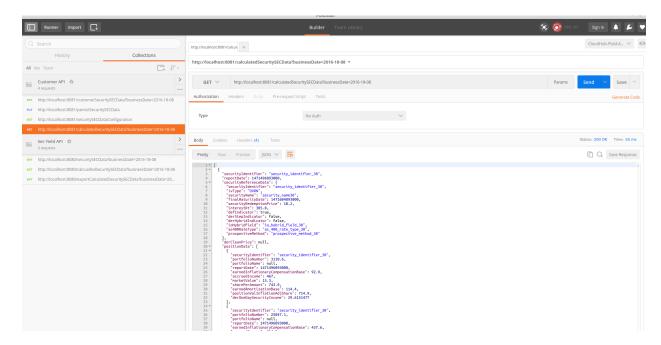


GET /securitySECDataConfiguration Gets SEC security config for the calculations in engines.





GET /calculatedSecuritySECData Gets the calculated SEC security data.



Note that ifdata was not calculated previously (by calling the SEC Yield API GET /securitySECData), an empty array will be returned by this request. In my test I already had some calculated data before.

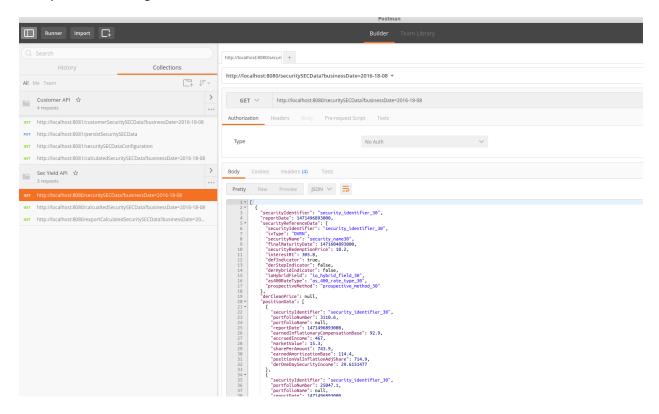
SEC Yield API



Note the number of retrieved results. It must not exceed the configured "secyieldserviceimpl.maxNumberOfSecurityData"

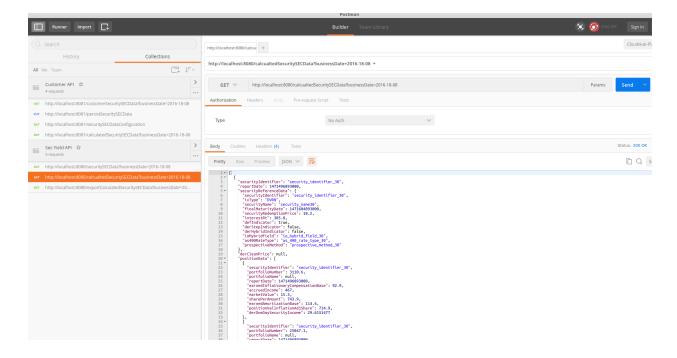
GET /securitySECData

Gets SEC Security data with the calculated data for the business date. The securities are also persisted using customer REST API.



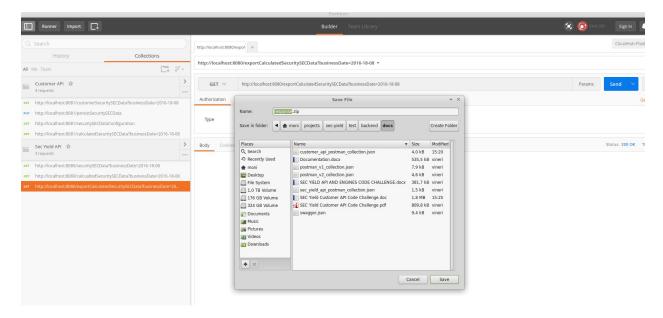
GET /calcualtedSecuritySECData Gets already calculated SEC Security data for the given date.





GET /exportCalculatedSecuritySECData Exports calculated SEC Security data for the given date.

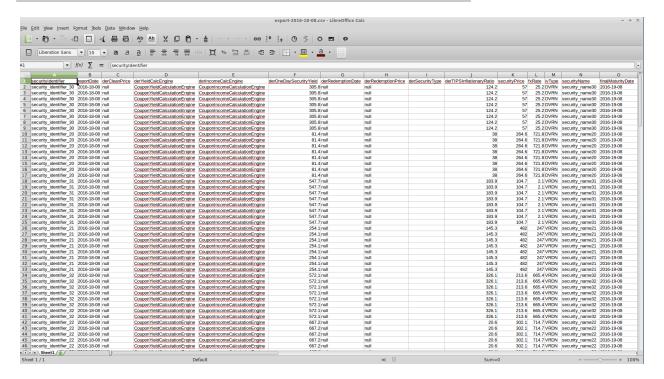
For downloading, click the arrow near the Send button and then click "Send and Download".



In order to get the correct file name of the export, please test this url in a browser.

Export file sample:





Tests

In seccommons folder, run the following command:

\$ mvn test

```
TESTS

Running com.csa.apex.secytel.utility.DateUtilityTest

Running com.csa.apex.secytel.utility.DateUtilityTest

2016-08-21 15:27:43 INFO BastractContextLoader;242 - Could not detect default resource locations for test class [com.csa.apex.secyteld.utility.DateUtilityTest]: no resource found for suffixes (-context.xml, Context.zmc).

2016-08-21 15:27:43 INFO BastractContextLoader;242 - Could not detect default resource locations for test class [com.csa.apex.secyteld.utility.DateUtilityTest]: no resource found for suffixes (-context.xml, Context.zmc).

2016-08-21 15:27:43 INFO BastractContextLoader;242 - Could not detect default resource locations for resource found for suffixes (-context.xml, Context.zmc).

2016-08-21 15:27:43 INFO BastractContextLoader;242 - Could not detect default resource locations for resource found for suffixes (-context.xml, Context.zmc).

2016-08-21 15:27:44 INFO BastractContextLoader;242 - Could not detect default resource locations for resource found for suffixes (-context.xml, Context.zmc).

2016-08-21 15:27:44 INFO BastractContextLoader;242 - Could not detect default resource locations for resource found for suffixes (-context.xml) and resource found f
```

In customerapi folder, run the following command:

\$ mvn test



```
SecuritySECONT content approach security security and content approach security secu
```

In secyieldapi folder, run the following command (the Customer API has to be running when executing SEC Yield API tests because the "configuration"

field in com.csa.apex.secyield.api.services.impl.SECYieldServiceImpl is initialized by making a REST API call to Customer API):

\$ mvn test

```
In the Section of the
```

6. Resource Contact List

Name	Resource Email
TCSASSEMBLER	