Acumatica
The Cloud ERP

I310 Data Retrieval with REST API Basics

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Timing and Agenda

April 26, 2022 -10 AM -11 AM

Day 1

Lesson 1.1: Signing In to and Signing Out from Acumatica ERP

Lesson 2.1: Retrieving the List of Customers with Contacts

Lesson 2.2: Retrieving the Quantities of Stock Items

April 27, 2022 -10 AM -11 AM

Day 2

Lesson 3.1: Retrieving the List of Modified Stock Items

Lesson 3.2: Monitoring Item Availability with Push Notifications

Lesson 4.1: Configuring a Customization Project and Exporting It

Day 1

Lesson 1.1: Signing In to and Signing Out from Acumatica ERP

Learning Objectives

In this chapter, you will learn how to do the following:

- Sign in to Acumatica ERP through the REST API
- Sign out from Acumatica ERP through the REST API

Example: Signing In to Acumatica ERP

Step 1

Key	Value
Accept	application/json
Content-Type	application/json

```
{
  "name": "admin",
  "password": "123",
  "tenant": "MyStore",
  "branch": "MYSTORE"
}
```

Example: Signing In to Acumatica ERP

Step 2

Overview | POST Lesson 1.1: Signin... | POST Lesson 1.1: Signin...

MyBIIntegr... / Part 1: Client Applicat... / **Lesson 1.1: Signing in ...** Save

POST http://localhost/MyStoreInstance/entity/auth/login Send

Params Auth Headers (12) Body Pre-req. Tests Settings Cookies

raw JSON Beautify

```
1 {
2   "name": "admin",
3   "password": "123",
4   "tenant": "MyStore",
5   "branch": "MYSTORE"
6 }
```

Cookies 204 No Content 1 m 24.12 s 1.21 KB Save Response

ASP.NET_Ses...	jvpocrukcvm...	localhost	/	Session	true	false
UserBranch	82	localhost	/	Session	false	false
Locale	Culture%3De...	localhost	/	Mon, 20 Sep ...	false	false
.ASPXAUTH	A37D42B8E49C5B2F4E89A4AD91BD067B847042205707 8821A110D41DC4097226EABD3D51B3CB	localhost	/	Session	true	false
requestid		localhost	/	Session	false	false
requeststat		localhost	/	Session	false	false

Example: Signing Out from Acumatica ERP

Step 1

Key	Value
Accept	application/json
Content-Type	application/json

Example: Signing Out from Acumatica ERP

Step 2

Overview | POST Lesson 1.1: Signin... | POST Lesson 1.1: Signin...

MyBlInteg... / Part 1: Client Applica... / Lesson 1.1: Signing out ...

Save

POST http://localhost/MyStoreInstance/entity/auth/logout Send

Params Auth Headers (11) Body Pre-req. Tests Settings Cookies

Headers 9 hidden

	KEY	VALUE	DESC
☑	Accept	application/json	
☑	Content-Type	application/json	
	Key	Value	Description

Bulk Edit Presets

Cookies 204 No Content 149 ms 757 B Save Response

Name	Value	Domain	Path	Expires	HttpOnly	Secure
Locale	TimeZone%3I...	localhost	/	Session	false	false
UserBranch	82	localhost	/	Session	false	false
requestid	C34018A628 ...	localhost	/	Session	false	false
requeststat	%2Bst%3A12'...	localhost	/	Session	false	false

Figure: Cookies after signing out

Lesson Summary

In this lesson, you have learned how to sign in to and sign out from Acumatica ERP through the REST API. For

information on how to sign in to Acumatica ERP by using the OData interface, see Lesson 1.1: Signing In to Acumatica ERP in the I300 Data Retrieval with OData course.

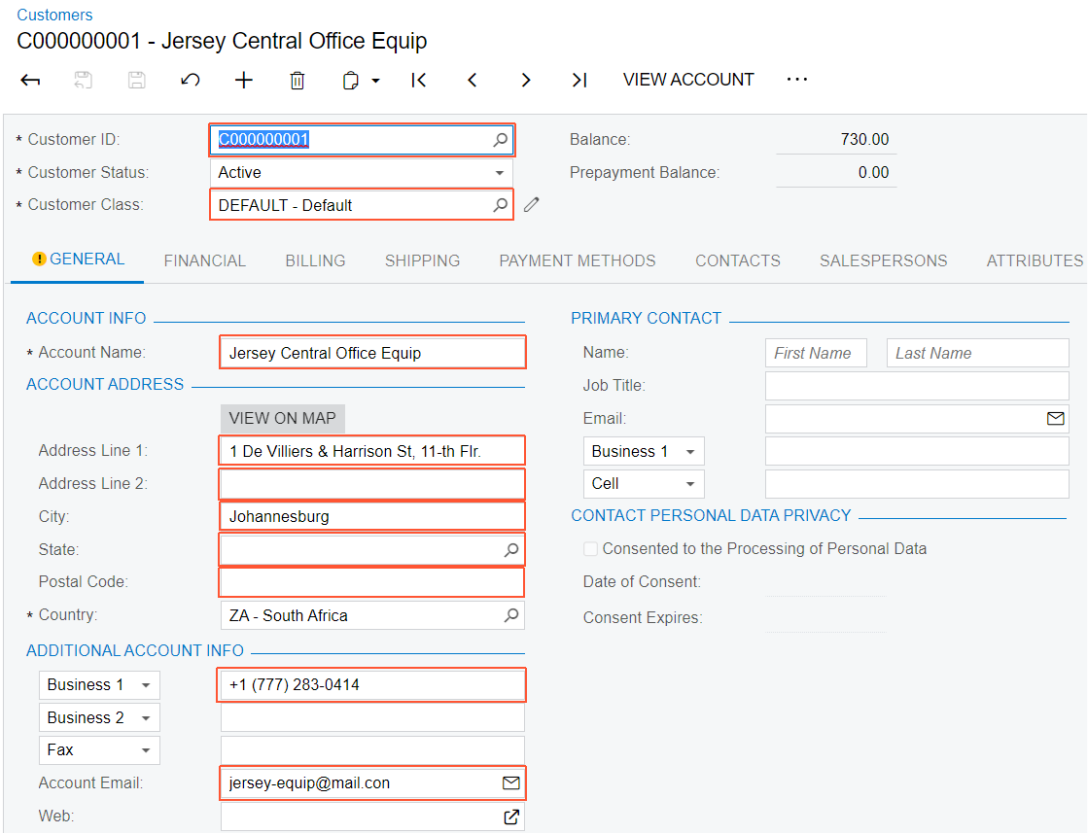
You have also reviewed OAuth 2.0 authorization in Acumatica ERP.

Lesson 2.1: Retrieving the List of Customers with Contacts

Learning Objective

In this session, you will learn how to retrieve the data from an Acumatica ERP data entry form.

Figure: Elements on the Customers form



Example: Using GET and the $expand and $select Parameters

Web Service Endpoints

Default 20.200.001

CUSTOMIZATION TOOLS

DELETE EXTEND ENDPOINT ···

* Endpoint Name: Default

* Endpoint Version: 20.200.001

INSERT

- Customer
  - Actions
  - Attributes: AttributeValue[]
  - BillingContact: Contact
  - Contacts: CustomerContac
  - CreditVerificationRules: Cr
  - MainContact: Contact
  - PaymentInstructions: Busir
  - PrimaryContact: Contact
  - Salespersons: CustomerSa
  - ShippingContact: Contact
- CustomerClass
- CustomerLocation
- CustomerPaymentMethod
- CustomerPriceClass

ENTITY PROPERTIES FIELDS

POPULATE EXTEND ENTITY VALIDATE ENTITY

Field Name	Mapped Object	Mapped Field	Field Type
AccountRef	General -> Accoun...	AcctReferenceNbr	StringValue
ApplyOverdueCharges	General -> Additio...	FinChargeApply	BooleanValue
AutoApplyPayments	General -> Additio...	AutoApplyPayments	BooleanValue
BillingAddressOverride	Financial -> Retain...	OverrideBillAddress	BooleanValue
BillingContactOverride	Financial -> Finan...	OverrideBillContact	BooleanValue
CreatedDateTime	General -> Accoun...	CreatedDateTime	DateTimeValue
CurrencyID	General -> Additio...	CuryID	StringValue
CurrencyRateType	General -> Additio...	CuryRateTypeID	StringValue
CustomerClass	Customer Summary	Customer Class	StringValue
CustomerID	Customer Summary	Customer ID	StringValue

Figure: The Customer entity

Instructions for Retrieving the List of Customers

- The following parameters of the request

Parameter	Value
`$expand`	`MainContact,MainContact/Address`
`$select`	`CustomerID,CustomerName,CustomerClass,MainCon-tact/Email,MainContact/Phone1,MainContact/Address/Ad-dressLine1,MainContact/Address/AddressLine2,MainCon-tact/Address/City,MainContact/Address/State,MainCon-tact/Address/PostalCode`

- The headers shown below

Key	Value
`Accept`	`application/json`
`Content-Type`	`application/json`

Lesson Summary

In this lesson, you have learned how to retrieve the data that is exposed in Acumatica ERP on a data entry form by using the contract-based REST API. For information on how to retrieve the same data by using the OData interface, see Lesson 2.1: Retrieving the List of Customers with Contacts in the I300 Data Retrieval with OData course.

Lesson 2.2: Retrieving the Quantities of Stock Items

Learning Objective

In this session, you will learn how to retrieve the list of records from a generic inquiry form.

Figure: Item Availability Data generic inquiry

Item Availability Data

CUSTOMIZATION TOOLS

Inventory ID:

Drag column header here to configure filter

Warehouse	Inventory ID	Description	Qty. On Hand	Qty. Available
MAIN	AACOMPUT01	Acer Laptop Computer	150.00	150.00
MAIN	AALEGO500	Lego 500 piece set	1,999.00	1,977.00
MAIN	AAMACHINE1	Injection molding machine	130.00	127.00
MAIN	CONGRILL	Char-Broil Classic 480	200.00	193.00
MAIN	CONTABLE1	Folding Picnic Table 6 Foot	200.00	195.00
MAIN	HEADSET	Headset	40.00	40.00
MAIN	KEYBOARD	Computer keyboard	40.00	40.00
MAIN	LAPTOP12	Laptop 12"	20.00	20.00
MAIN	LAPTOP14	Laptop 14"	20.00	20.00
MAIN	LEATHCASE	Leather case for laptops 12"-15"	40.00	40.00
MAIN	MONITOR26	Monitor 26"	40.00	40.00
MAIN	MOUSE	Computer mouse	40.00	40.00
YOGI	SIMCARD	SIM card & contract	1,000.00	1,000.00

1-13 of 13 records

Instructions for Retrieving the Quantities of Items

Key	Value
Accept	application/json
Content-Type	application/json

Lesson Summary

In this lesson, you have learned how to retrieve a list of records that is exposed in Acumatica ERP on a generic inquiry form by using the contract-based REST API. For information on how to retrieve the same data by using the OData interface, see Lesson 2.2: Retrieving the Quantities of Stock Items in the I300 Data Retrieval with OData course.

Day 2

Lesson 3.1: Retrieving the List of Modified Stock Items

Learning Objective

In this session, you will learn how to retrieve the list of records that were modified within a period.

Figure: Elements whose values will be exported from the Summary area and the General tab

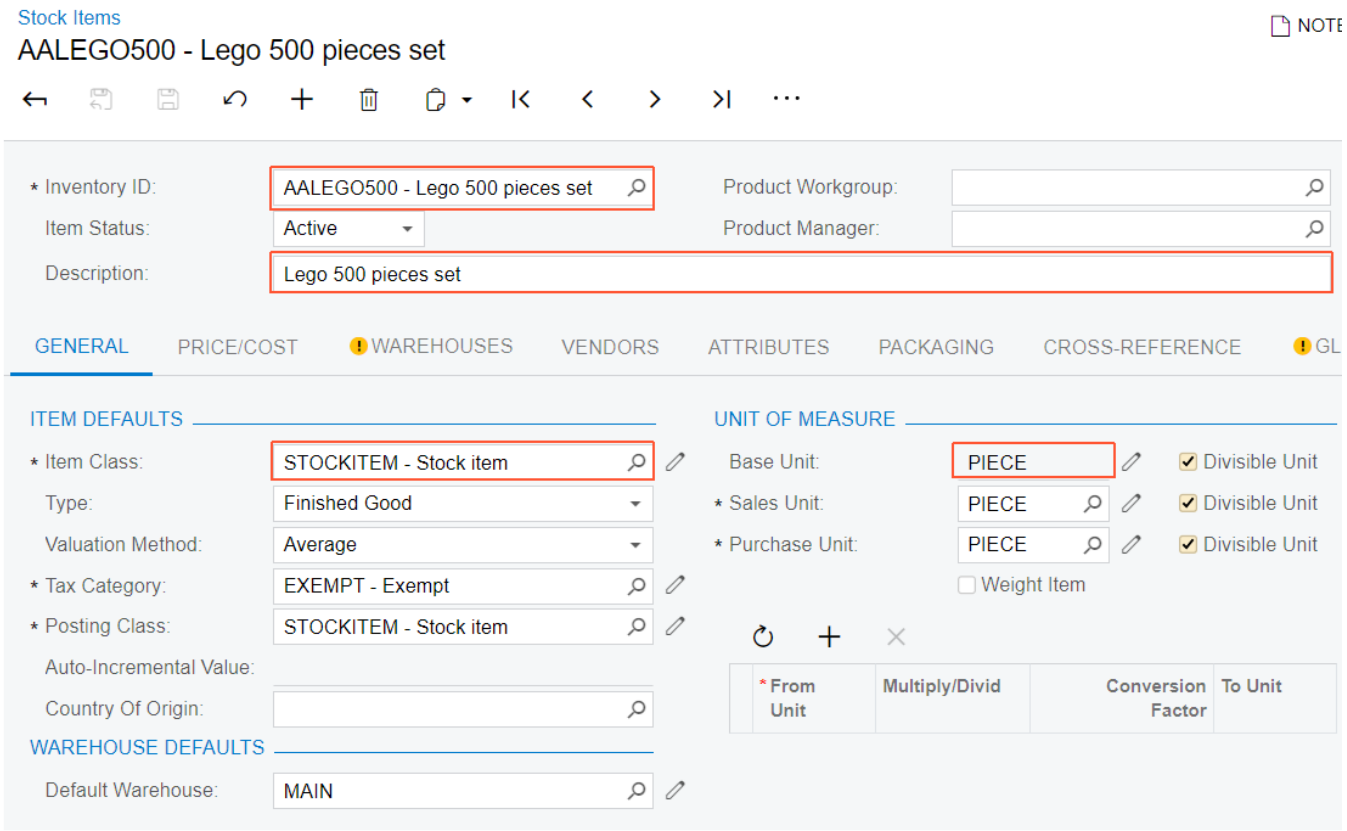


Figure: Elements whose values will be exported from the Warehouse Details tab

Stock Items

AALEGO500 - Lego 500 pieces set

NOTES ACTIVITIES

* Inventory ID: AALEGO500 - Lego 500 pieces set

Product Workgroup:

Item Status: Active

Product Manager:

Description: Lego 500 pieces set

GENERAL | PRICE/COST | WAREHOUSES | VENDORS | ATTRIBUTES | PACKAGING | CROSS-REFERENCE | GL ACCOUNTS

ADD WAREHOUSE DETAIL

Defaul	Warehouse	Status	Inventory Account	Inventory Sub.	Override Product Manager	Product Workgroup	Product Manager	Overri Std. Cost	Price Overri	Qty. On Hand
☑	MAIN	Active	130000	000-00-00	☐			☐	☐	1,999.00

Figure: Last Modified Date generic inquiry

Last Modified Date

CUSTOMIZATION TOOLS

Drag column header here to configure filter

Inventory ID	Stock Item	Item Status	Last Modified On
AALEGO500	☑	Active	12/25/2018
AACOMPUT01	☑	Inactive	12/25/2018
<N/A>	☐		9/6/2017
PRINTCOPY	☐	Active	10/24/2016
CONTABLE1	☑	Active	2/10/2016
AAMACHINE1	☑	Active	2/9/2016
CONGRILL	☑	Active	2/9/2016
CALLOUT	☐	Active	8/26/2015
CALLIN	☐	Active	8/26/2015
LAPTOP14	☑	Active	8/25/2015
LAPTOP12	☑	Active	8/25/2015
KEYBOARD	☑	Active	8/25/2015
HEADSET	☑	Active	8/25/2015
MOUSE	☑	Active	8/25/2015
MONITOR26	☑	Active	8/25/2015
LEATHCASE	☑	Active	8/25/2015

1-16 of 21 records

1 of 2 pages

Instructions for Retrieving the List of Modified Stock Items

- The following parameters of the request

Parameter	Value
`$filter`	`ItemStatus eq 'Active' and LastModified gt datetimeoff-set'2019-11-14T00:00:00.000'` Specify today's date instead of `2019-11-14`.
`$expand`	`WarehouseDetails`
`$select`	`InventoryID,Description,WarehouseDetails/Warehouse-ID,WarehouseDetails/QtyOnHand,ItemClass,BaseUOM`

- The headers shown below

Key	Value
`Accept`	`application/json`
`Content-Type`	`application/json`

Lesson Summary

In this lesson, you have learned how to export from Acumatica ERP the list of stock item records that were modified within a particular period by using the contract-based REST API. For information on how to retrieve the same data by using the OData interface, see Lesson 3.1: Retrieving the List of Modified Stock Items in the I300 Data Retrieval with OData course.

Lesson 3.2: Monitoring Item Availability with Push Notifications

Learning Objective

In this session, you will learn how to configure Acumatica ERP to send push notifications to an HTTP address.

Figure: An HTTP address

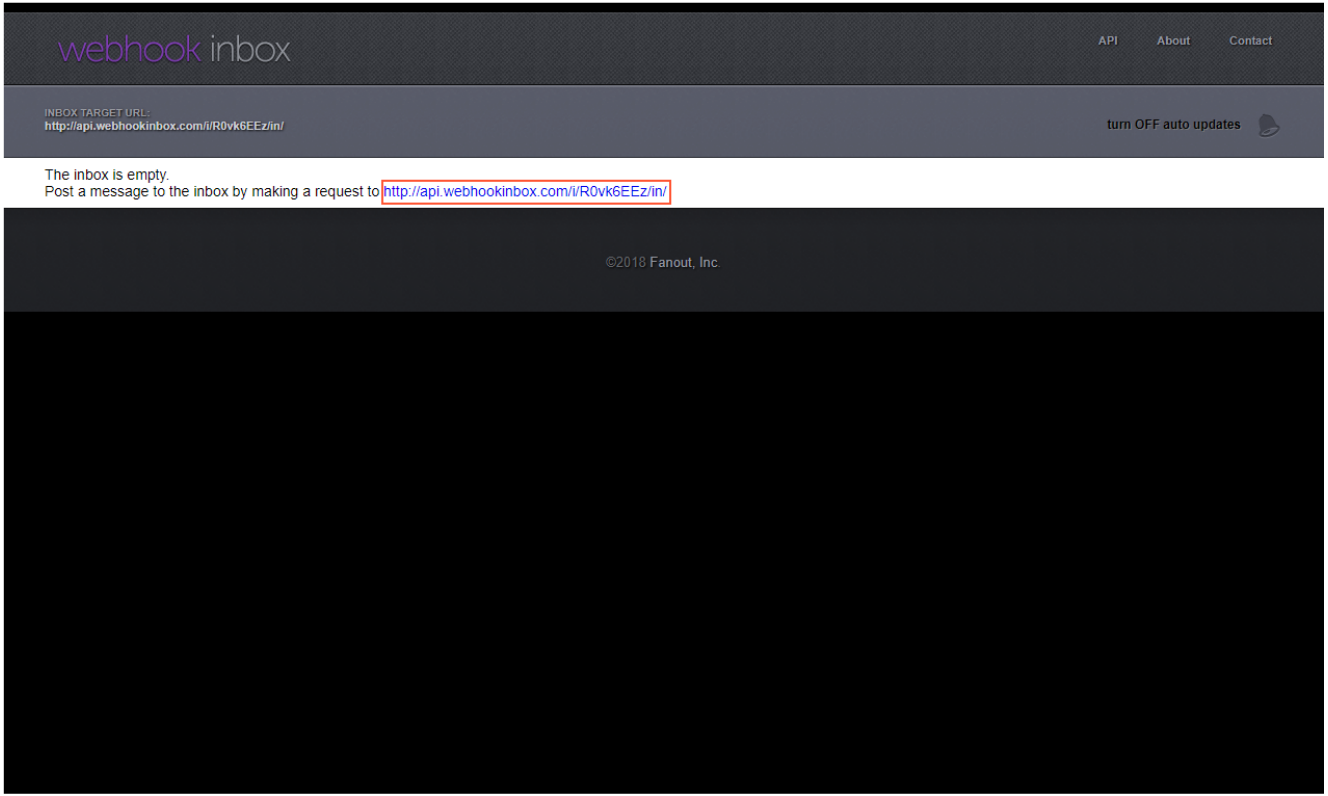
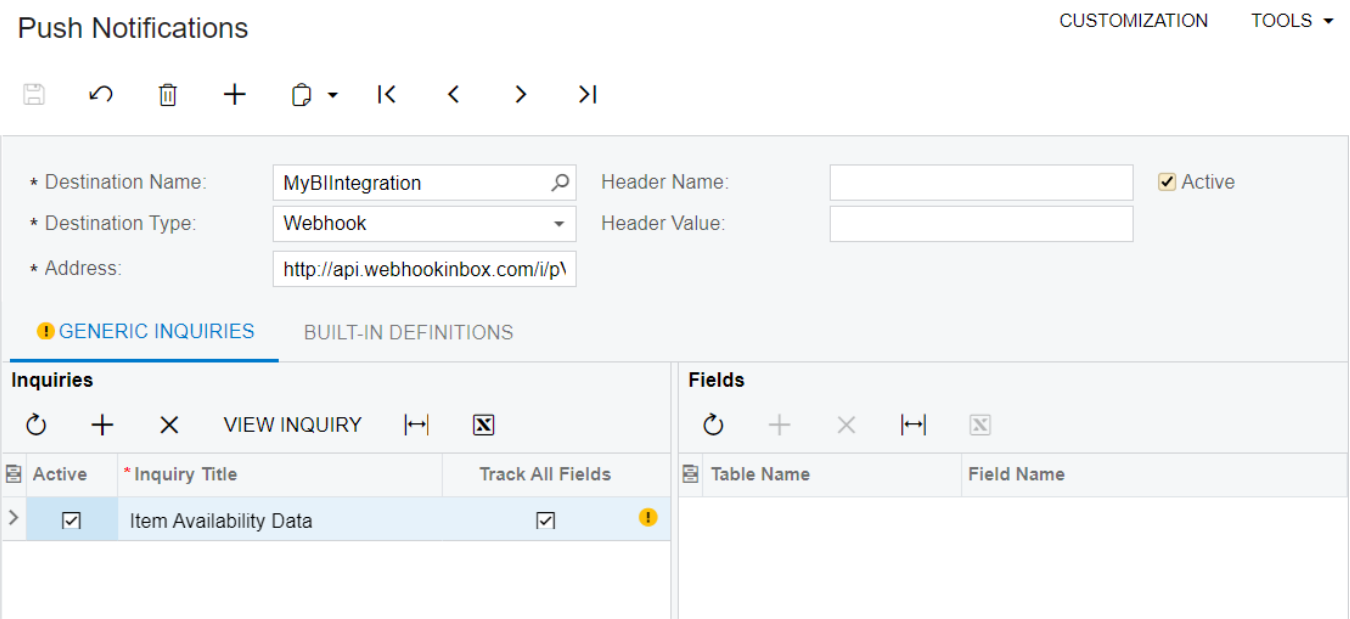


Figure: Push notification configuration



Lesson Summary

In this lesson, you have configured Acumatica ERP to send push notifications to an HTTP address. You have also reviewed the possible options for the configuration of push notifications.

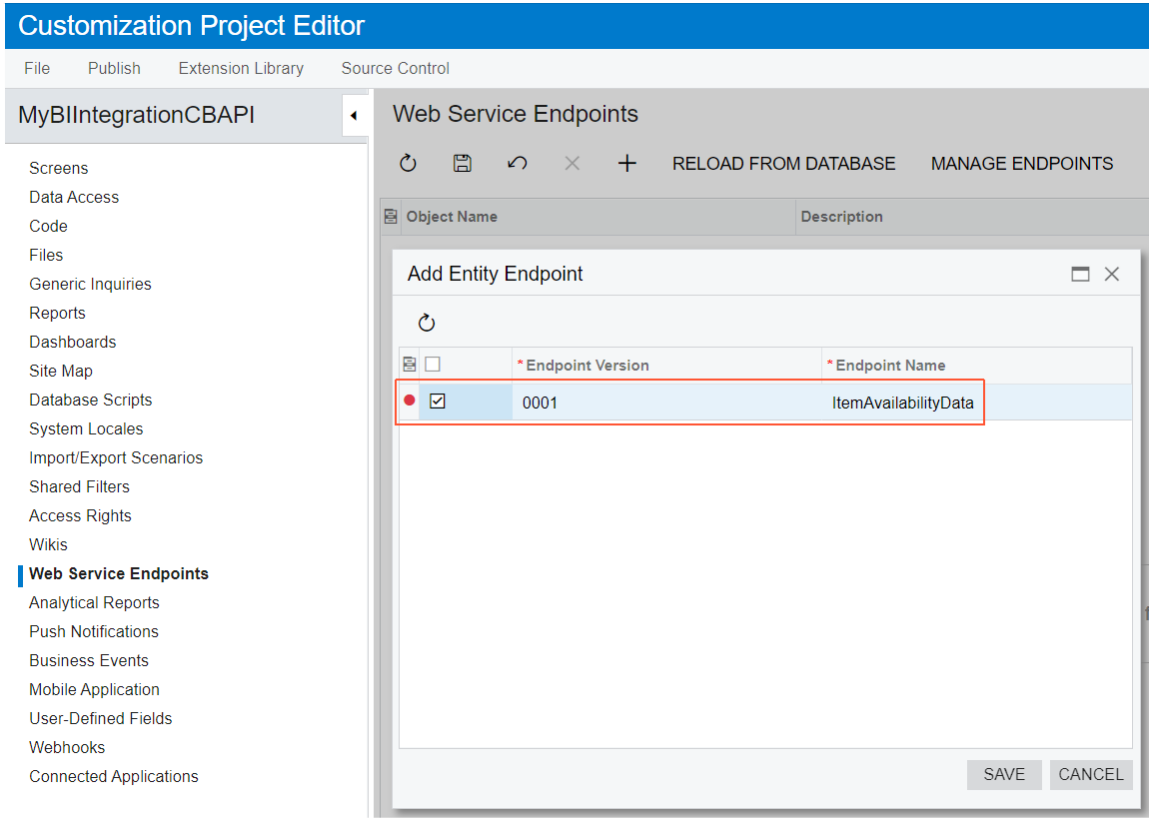
Lesson 4.1: Configuring a Customization Project and Exporting It

Learning Objective

In this lesson, you will learn how to do the following:

- Include in a customization project all necessary items that were created in Acumatica ERP for an integration application
- Export the customization project as a ZIP file

Figure: Selecting the endpoint



Lesson Summary

In this lesson, you have configured a customization project to include all necessary items that have been created in Acumatica ERP for the integration application. You have exported this customization project as a ZIP file.

Feedback

Your feedback is appreciated

https://www.surveymonkey.com/r/OnlineSessions2022

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Thank you

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