## SF-LWR Extension Framework : Avalara Tax Integration

**Functional Overview** 

**Technical Details** 

Sequence Diagram

Configuration details

Record - Avalara (Tax Provider)

Record - Avalara Tax Calc Service (HTTP Service)

Source Code

#### **Functional Overview**

This document provides details specific to integrating with Avalara.

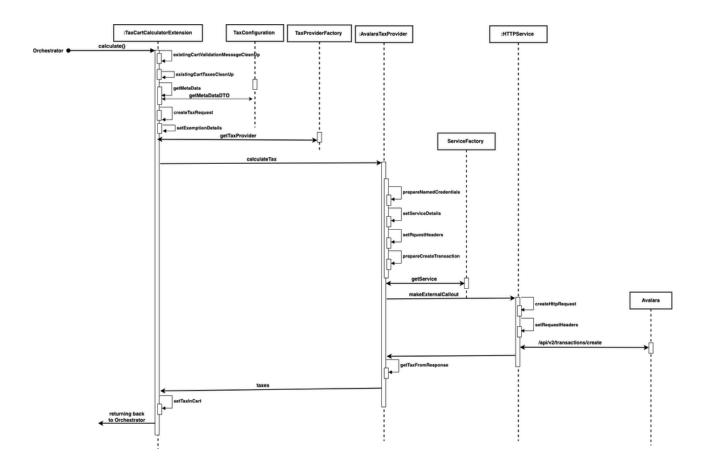
For common details you can refer to parent doc here.

#### **Technical Details**

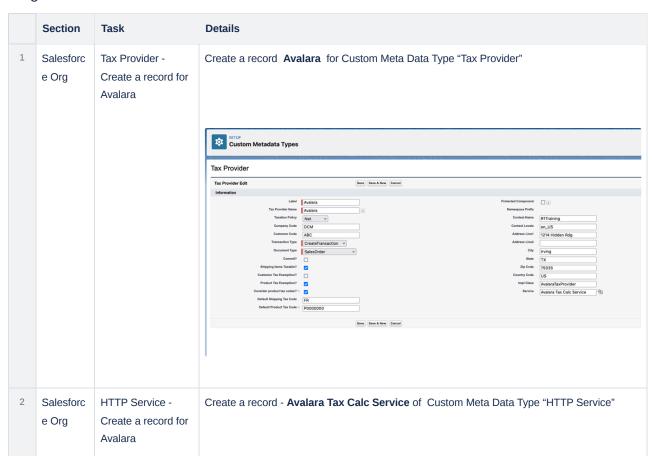
This integration implementation has two parts :

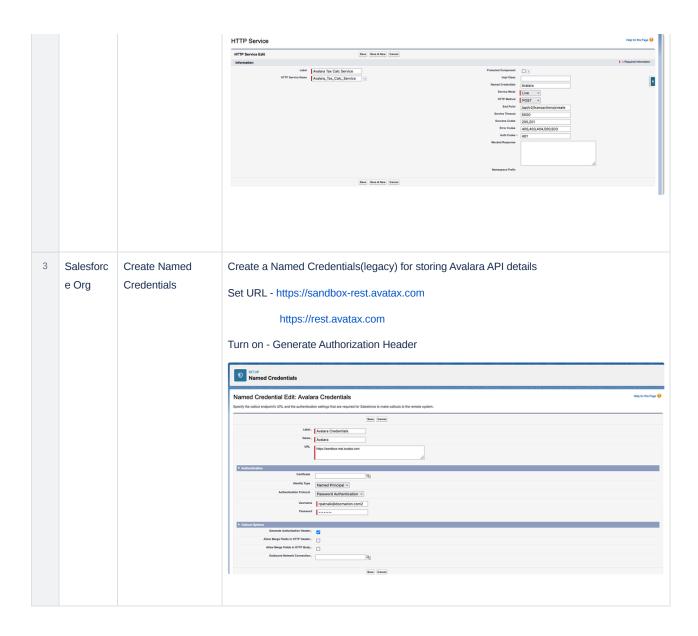
- Configuration
  - o Custom Meta Data Records
    - Avalara
    - Avalara Tax Calc Service
  - Named Credentials
    - Avalara Credentials (Legacy)
- Source Code
  - AvalaraTaxProvider
  - AvalaraTaxRequest
  - AvalaraTaxResponse

#### Sequence Diagram



### Configuration details





### Record - Avalara (Tax Provider)

Field Label	Field Value	
Context Name	<webstore name=""> e.g. R1Training</webstore>	
Context Locale	<locale> e.g. en_US</locale>	
Impl Class	AvalaraTaxProvider	
Address Line1	75 New Hampshire Ave	
Address Line2		
City	Portsmouth	
State	NH	
Zip Code	03801	
Country Code	US	
Company Code	DCM	

Customer Code	ABC			
Taxation Policy	Net Gross			
Transaction Type	CreateTransaction AdjustTransaction CommitTransaction RefundTransaction			
Document Type	SalesOrder SalesInvoice PurchaseOrder PurchaseInvoice ReturnOrder ReturnInvoice InventoryTransferOrder InventoryTransferInvoice			
Commit?	True/False			
Shipping Items Taxable?	True/False			
Consider product tax codes?	True/False			
Customer Tax Exemption?	True/False			
Product Tax Exemption?	True/False			
Default Product Tax Code	P0000000			
Default Shipping Tax Code	FR			
Request Template	1			
Service	Avalara Tax Calc Service			

# Record - Avalara Tax Calc Service ( HTTP Service)

Field Label	Field Value	
End Point	/api/v2/transactions/create	
HTTP Method	POST	
Impl Class	This is optional so could be left blank	
Named Credentials	Avalara	
Service Mode Live		
	Mocked	
Timeout	5000 (ms)	

Success Codes	200,201
Error Codes	400,403,404,500,503
Auth Codes	401
Mocked Response	

#### Source Code

Class	Details	Code	
Class  AvalaraTaxProvide r	This class extends ShippingProvider class & implements following methods -  prepareCreateTransaction prepareCommitTransaction getTaxFromResponse		<pre>public without sharing class AvalaraTaxProvider extends TaxPro   public AvalaraTaxProvider() {   }   public override void prepareCreateTransaction(     TaxProviderRequest taxRequest,     Map<string, string=""> callOutRequest ) {     Boolean hasMultipleShipments = taxRequest.hasMultipleShipm     taxRequest.hasMultipleShipments == true     ? true</string,></pre>
		40 41 42 43 44 45 46	<pre>avalaraRequest.exemptionNo = taxRequest.customerExemptio }  if (String.isNotBlank(taxRequest.entityUseCode)) {    avalaraRequest.entityUseCode = taxRequest.entityUseCode; }</pre>

```
47
         avalaraRequest.date_Z = System.now() + '';
 48
         //taxRequest.taxableCartItems = null;
 49
           taxRequest.taxableCartItems != null &&
50
51
           taxRequest.taxableCartItems.keySet().size() > 0
52
         ) {
           avalaraRequest.lines = prepareRequestFromExistingData(
53
54
             taxRequest.
             hasMultipleShipments
55
56
           );
57
         } else {
58
           avalaraRequest.lines = prepareRequestFromDB(
 59
60
             hasMultipleShipments
61
           );
         }
62
63
         if (!hasMultipleShipments) {
64
65
           AvalaraTaxRequest.Addresses addresses = new AvalaraTaxRe
66
           addresses.shipFrom = prepareShipFromAddress(taxRequest);
 67
           addresses.shipTo = prepareShipToAddress(
68
             taxRequest.street,
 69
             taxRequest.city,
             taxRequest.state,
 70
 71
             taxRequest.postalCode,
 72
             taxRequest.country
 73
           );
 74
           avalaraRequest.addresses = addresses;
 75
 76
 77
         String avalaraRequestBody = JSON.serialize(avalaraRequest,
 78
         avalaraRequestBody = avalaraRequestBody.replaceAll('_Z',
         callOutRequest.put(Constants.SERVICE_REQUEST_BODY, avalara
 79
80
         System.debug('===== avalaraRequest : '+avalaraRequestBody
81
       }
82
83
       public virtual override TaxProviderResponse getTaxFromRespon
         String strAvalaraResponseBody,
84
         TaxProviderRequest tpRequest
85
86
       ) {
87
         TaxProviderResponse tpResponse = new TaxProviderResponse()
         Map<String, LineItemTaxDetails> taxes = new Map<String, Li
88
89
         Map<String, TaxableCartItem> taxableCartItems = tpRequest.
90
91
         TaxProviderResponse shippingResponse;
         System.debug('===== strAvalaraResponseBody : '+strAvalara
92
93
         if (String.isNotBlank(strAvalaraResponseBody)) {
           AvalaraTaxResponse avalaraTaxResponse = AvalaraTaxRespon
94
95
             strAvalaraResponseBody
96
           );
97
           if (
98
             avalaraTaxResponse.lines != null &
99
             avalaraTaxResponse.lines.size() > 0
100
101
             for (AvalaraTaxResponse.Lines line : avalaraTaxRespons
102
               String lineNumber = line.lineNumber;
103
               LineItemTaxDetails liTaxDetails = new LineItemTaxDet
104
               liTaxDetails.tax = 0;
               liTaxDetails.rate = 0;
105
106
               if (line.tax > 0) {
```

```
107
                 liTaxDetails.tax = line.tax;
108
               }
               if (line.taxableAmount > 0) {
109
                 liTaxDetails.rate = liTaxDetails.tax / line.taxabl
110
111
112
               taxableCartItems.get(lineNumber).lineItemTexas.add(l
113
             }
114
             tpResponse.taxableCartItems = taxableCartItems;
115
           }
116
         }
117
         return tpResponse;
118
       }
119
       private List<AvalaraTaxRequest.Lines> prepareRequestFromExis
120
121
         TaxProviderRequest taxRequest,
         Boolean hasMultipleShipments
122
123
         List<AvalaraTaxRequest.Lines> lines = new List<AvalaraTaxR
124
125
         for (String id : taxRequest.taxableCartItems.keySet()) {
126
           TaxableCartItem cartItem = taxRequest.taxableCartItems.g
127
           AvalaraTaxRequest.Lines line = prepareLine(
128
             id,
129
             cartItem.sku,
             cartItem.amount,
130
131
             null,
             cartItem.taxClassId,
132
133
             cartItem.productExemptionCode,
134
             cartItem.entityUseCode,
135
             taxRequest,
             false
136
137
           );
138
           if (hasMultipleShipments) {
139
140
             AvalaraTaxRequest.Addresses addresses = new AvalaraTax
141
             addresses.shipFrom = prepareShipFromAddress(taxRequest
             addresses.shipTo = prepareShipToAddress(
142
143
               cartItem.street,
144
               cartItem.city,
145
               cartItem.state,
146
               cartItem.postalCode,
147
               cartItem.country
148
             );
149
             line.addresses = addresses;
150
           }
151
           lines.add(line);
152
         }
153
         return lines;
       }
154
155
156
       private List<AvalaraTaxRequest.Lines> prepareRequestFromDB(
157
         TaxProviderRequest taxRequest,
158
         Boolean hasMultipleShipments
159
       ) {
160
161
         String cartId = taxRequest.cartId;
162
         taxRequest.taxableCartItems = new Map<String, TaxableCartI
163
         List<AvalaraTaxRequest.Lines> lines = new List<AvalaraTaxR
         String query = 'SELECT Id, Sku, TotalLineAmount, Quantity,
164
165
         if (hasMultipleShipments) {
166
           query += ', CartDeliveryGroup.Id, CartDeliveryGroup.Delive
```

```
167
         if(taxRequest.taxMetaData.useProductTaxCodes){
168
           query += ',Product2.Tax_Class_Id__c';
169
170
171
         if(taxRequest.taxMetaData.productTaxExmeption){
172
           query += ',Product2.Taxable__c,Product2.Entity_Use_Code_
173
         }
174
         query += ' FROM CartItem WHERE cartId=:cartId';
175
         if (!taxRequest.taxMetaData.shippingItemsTaxable) {
           query += ' AND Type = \'Product\'';
176
177
         }
178
         for (CartItem cartItem : Database.query(query)) {
179
           AvalaraTaxRequest.Lines line = prepareLine(
180
             cartItem.Id.
181
             cartItem.SKU !=null ? cartItem.SKU : cartItem.Product2
             cartItem.TotalLineAmount,
182
183
             cartItem.Type,
             taxRequest.taxMetaData.useProductTaxCodes && cartItem.
184
185
             tax Request. tax Meta Data. product Tax Exmeption~?~cart Item.\\
186
             taxRequest.taxMetaData.productTaxExmeption ? cartItem.
187
             taxRequest,
188
             true
189
           );
           if (hasMultipleShipments) {
190
191
             AvalaraTaxRequest.Addresses addresses = new AvalaraTax
             addresses.shipFrom = prepareShipFromAddress(taxRequest
192
193
             addresses.shipTo = prepareShipToAddress(
194
               cartItem.CartDeliveryGroup.DeliverToStreet,
195
               cartItem.CartDeliveryGroup.DeliverToCity,
               cartItem.CartDeliveryGroup.DeliverToState,
196
               cartItem.CartDeliveryGroup.DeliverToPostalCode,
197
198
               cartItem.CartDeliveryGroup.DeliverToCountry
199
             );
200
             line.addresses = addresses;
201
202
           lines.add(line);
203
         return lines;
204
205
       }
206
207
       private AvalaraTaxRequest.Lines prepareLine(
         ID id.
208
209
         String sku,
210
         Decimal taxableAmount,
211
         String type,
212
         String taxClassId,
213
         String exemptionCode,
214
         String entityUseCode,
215
         TaxProviderRequest taxRequest,
216
         Boolean setInRequestToo
217
       ) {
218
         AvalaraTaxRequest.Lines line = new AvalaraTaxRequest.Lines
219
         line.number_Z = id;
220
         line.itemCode = sku;
221
         line.amount = taxableAmount;
222
         if (String.isNotBlank(taxRequest.taxMetaData.taxationPolic
223
           line.taxIncluded = taxRequest.taxMetaData.taxationPolicy
224
               'net'
225
             )
226
             ? false
```

```
227
             : true:
228
         }
229
        line.taxCode = taxClassId;
230
         line.exemptionCode = exemptionCode;
231
         line.entityUseCode = entityUseCode;
232
        if (setInRequestToo) {
          TaxableCartItem tcItem = new TaxableCartItem();
233
234
          tcItem.id = id:
235
           tcItem.amount = taxableAmount;
236
           tcItem.sku = sku;
237
           tcItem.lineItemType = type;
238
           taxRequest.taxableCartItems.put(id, tcItem);
239
240
241
         return line;
242
       }
243
244
       public override void prepareCommitTransaction(TaxProviderReq
245
246
247
       AvalaraTaxRequest.ShipFrom prepareShipFromAddress(
         TaxProviderRequest taxRequest
248
249
250
         AvalaraTaxRequest.ShipFrom address = new AvalaraTaxRequest
251
252
         address.line1 = taxRequest.taxMetaData.shipFromLine1;
253
         address.city = taxRequest.taxMetaData.shipFromCity;
254
         address.region = taxRequest.taxMetaData.shipFromState;
255
         address.postalCode = taxRequest.taxMetaData.shipFromZipCod
         address.country = taxRequest.taxMetaData.shipFromCountry;
256
257
258
         return address;
259
       }
260
       AvalaraTaxRequest.ShipFrom prepareShipToAddress(
261
262
        String street,
        String city,
263
        String state,
264
265
        String postalCode,
266
         String country
267
     ) {
        AvalaraTaxRequest.ShipFrom address = new AvalaraTaxRequest
268
269
         address.line1 = street;
270
        address.city = city;
271
        address.region = state;
272
         address.postalCode = postalCode;
273
        address.country = country;
274
         return address;
275
      }
276 }
277
```

AvalaraTaxReques

This class is a DTO used to prepare Avalara tax calculation request which is posted to UPS to get shipping details

```
public class AvalaraTaxRequest {
  public class Addresses {
   public ShipFrom shipFrom { get; set; }
   public ShipFrom shipTo { get; set; }
   public Addresses() {
   }
  public Addresses(JSONParser parser) {
   while (parser.nextToken() != System.JSONToken.END_OBJECT)
}
```

```
if (parser.getCurrentToken() == System.JSONToken.FIELD
              String text = parser.getText();
10
11
             if (parser.nextToken() != System.JSONToken.VALUE_NUL
12
              if (text == 'shipFrom') {
13
                  shipFrom = new ShipFrom(parser);
               } else if (text == 'shipTo') {
14
15
                shipTo = new ShipFrom(parser);
16
               } else {
17
                 System.debug(
18
                   LoggingLevel.WARN,
19
                    'Addresses consuming unrecognized property: '
20
                 );
21
                  consumeObject(parser);
22
               }
23
             }
24
           }
25
26
       }
27
     }
28
29
     public List<Lines> lines { get; set; }
30
     public Addresses addresses { get; set; }
31
     public String code { get; set; }
     public String type { get; set; }
32
33
     public String companyCode { get; set; }
34
     public String date_Z { get; set; } // in json: date
     public String salespersonCode { get; set; }
35
36
     public String customerCode { get; set; }
37
     public String customerUsageType { get; set; }
38
     public String entityUseCode { get; set; }
     public Integer discount { get; set; }
39
     public String exemptionNo { get; set; }
40
41
     public String reportingLocationCode { get; set; }
42
     public String purchaseOrderNo { get; set; }
43
     public String currencyCode { get; set; }
     public String description { get; set; }
44
45
     public String referenceCode { get; set; }
     public Boolean commit_Z { get; set; } // in json: commit
46
47
     public String batchCode { get; set; }
48
     public String serviceMode { get; set; }
49
     public Integer exchangeRate { get; set; }
     public String exchangeRateEffectiveDate { get; set; }
50
51
     public String exchangeRateCurrencyCode { get; set; }
52
     public String posLaneCode { get; set; }
53
     public String businessIdentificationNo { get; set; }
54
     public Boolean isSellerImporterOfRecord { get; set; }
55
     public String email { get; set; }
     public String debugLevel { get; set; }
56
     public String customerSupplierName { get; set; }
57
58
     public Integer dataSourceId { get; set; }
59
     public String deliveryTerms { get; set; }
60
     public TaxOverride taxOverride { get; set; }
61
     public List<Parameters> parameters { get; set; }
62
     public List<UserDefinedFields> userDefinedFields { get; set;
63
64
     public AvalaraTaxRequest() {
65
66
     public AvalaraTaxRequest(JSONParser parser) {
67
       while (parser.nextToken() != System.JSONToken.END_OBJECT)
68
          if (parser.getCurrentToken() == System.JSONToken.FIELD_N
```

```
69
             String text = parser.getText();
             if (parser.nextToken() != System.JSONToken.VALUE_NULL)
 70
 71
               if (text == 'lines') {
 72
                 lines = arrayOfLines(parser);
 73
               } else if (text == 'addresses') {
                 addresses = new Addresses(parser);
 74
 75
               } else if (text == 'code') {
 76
                 code = parser.getText();
 77
               } else if (text == 'type') {
 78
                 type = parser.getText();
 79
               } else if (text == 'companyCode') {
                 companyCode = parser.getText();
80
               } else if (text == 'date') {
 81
                 date_Z = parser.getText();
82
83
               } else if (text == 'salespersonCode') {
84
                 salespersonCode = parser.getText();
               } else if (text == 'customerCode') {
 85
                 customerCode = parser.getText();
86
               } else if (text == 'customerUsageType') {
 87
88
                 customerUsageType = parser.getText();
               } else if (text == 'entityUseCode') {
89
90
                 entityUseCode = parser.getText();
               } else if (text == 'discount') {
 91
                 discount = parser.getIntegerValue();
92
               } else if (text == 'exemptionNo') {
 93
                 exemptionNo = parser.getText();
94
               } else if (text == 'reportingLocationCode') {
 95
                 reportingLocationCode = parser.getText();
96
               } else if (text == 'purchaseOrderNo') {
97
                 purchaseOrderNo = parser.getText();
98
               } else if (text == 'currencyCode') {
99
                 currencyCode = parser.getText();
100
101
               } else if (text == 'description') {
102
                 description = parser.getText();
103
               } else if (text == 'referenceCode') {
104
                 referenceCode = parser.getText();
105
               } else if (text == 'commit') {
106
                 commit_Z = parser.getBooleanValue();
107
               } else if (text == 'batchCode') {
                 batchCode = parser.getText();
108
109
               } else if (text == 'serviceMode') {
110
                 serviceMode = parser.getText();
111
               } else if (text == 'exchangeRate') {
112
                 exchangeRate = parser.getIntegerValue();
113
               } else if (text == 'exchangeRateEffectiveDate') {
114
                 exchangeRateEffectiveDate = parser.getText();
               } else if (text == 'exchangeRateCurrencyCode') {
115
116
                 exchangeRateCurrencyCode = parser.getText();
               } else if (text == 'posLaneCode') {
117
118
                 posLaneCode = parser.getText();
               } else if (text == 'businessIdentificationNo') {
119
120
                 businessIdentificationNo = parser.getText();
121
               } else if (text == 'isSellerImporterOfRecord') {
122
                 isSellerImporterOfRecord = parser.getBooleanValue(
               } else if (text == 'email') {
123
124
                 email = parser.getText();
               } else if (text == 'debugLevel') {
125
126
                 debugLevel = parser.getText();
               } else if (text == 'customerSupplierName') {
127
128
                 customerSupplierName = parser.getText();
```

```
} else if (text == 'dataSourceId') {
129
130
                 dataSourceId = parser.getIntegerValue();
131
               } else if (text == 'deliveryTerms') {
132
                 deliveryTerms = parser.getText();
133
               } else if (text == 'taxOverride') {
                 taxOverride = new TaxOverride(parser);
134
135
               } else if (text == 'parameters') {
                 parameters = arrayOfParameters(parser);
136
137
               } else if (text == 'userDefinedFields') {
138
                 userDefinedFields = arrayOfUserDefinedFields(parse
139
                 System.debug(
140
141
                   LoggingLevel.WARN,
142
                   'AvalaraTaxRequest consuming unrecognized proper
143
144
                 consumeObject(parser);
145
146
             }
147
           }
148
         }
149
       }
150
       public class TaxAmountByTaxTypes {
151
152
         public String taxTypeId { get; set; }
153
         public Integer taxAmount { get; set; }
154
         public TaxAmountByTaxTypes() {
155
         }
156
         public TaxAmountByTaxTypes(JSONParser parser) {
157
           while (parser.nextToken() != System.JSONToken.END_OBJECT
158
             if (parser.getCurrentToken() == System.JSONToken.FIELD
159
               String text = parser.getText();
160
               if (parser.nextToken() != System.JSONToken.VALUE_NUL
161
                 if (text == 'taxTypeId') {
162
163
                   taxTypeId = parser.getText();
                 } else if (text == 'taxAmount') {
164
165
                   taxAmount = parser.getIntegerValue();
166
                 } else {
167
                   System.debug(
168
                     LoggingLevel.WARN,
                     'TaxAmountByTaxTypes consuming unrecognized pr
169
170
                   );
171
                   consumeObject(parser);
172
173
174
175
           }
176
         }
177
       }
178
179
       public class TaxOverride {
180
         public String type { get; set; }
181
         public Integer taxAmount { get; set; }
182
         public String taxDate { get; set; }
183
         public String reason { get; set; }
184
         public List<TaxAmountByTaxTypes> taxAmountByTaxTypes { get
185
186
         public TaxOverride() {
187
188
         public TaxOverride(JSONParser parser) {
```

```
while (parser.nextToken() != System.JSONToken.END_OBJECT
189
190
             if (parser.getCurrentToken() == System.JSONToken.FIELD
191
               String text = parser.getText();
192
               if (parser.nextToken() != System.JSONToken.VALUE_NUL
193
                 if (text == 'type') {
194
                   type = parser.getText();
195
                 } else if (text == 'taxAmount') {
                   taxAmount = parser.getIntegerValue();
196
197
                 } else if (text == 'taxDate') {
198
                   taxDate = parser.getText();
199
                 } else if (text == 'reason') {
                   reason = parser.getText();
200
201
                 } else if (text == 'taxAmountByTaxTypes') {
202
                   taxAmountByTaxTypes = arrayOfTaxAmountByTaxTypes
203
                 } else {
204
                   System.debug(
205
                     LoggingLevel.WARN,
                     'TaxOverride consuming unrecognized property:
206
207
208
                   consumeObject(parser);
209
210
               }
211
             }
212
           }
213
         }
214
       }
215
216
       public class Parameters {
217
         public String name { get; set; }
         public String value { get; set; }
218
         public String unit { get; set; }
219
220
221
         public Parameters() {
222
         public Parameters(JSONParser parser) {
223
224
           while (parser.nextToken() != System.JSONToken.END_OBJECT
225
             if (parser.getCurrentToken() == System.JSONToken.FIELD
226
               String text = parser.getText();
227
               if (parser.nextToken() != System.JSONToken.VALUE_NUL
228
                 if (text == 'name') {
229
                   name = parser.getText();
                 } else if (text == 'value') {
230
231
                   value = parser.getText();
232
                 } else if (text == 'unit') {
233
                   unit = parser.getText();
234
                 } else {
235
                   System.debug(
236
                     LoggingLevel.WARN,
                     'Parameters consuming unrecognized property: '
237
238
239
                   consumeObject(parser);
240
241
               }
242
             }
243
           }
244
         }
245
       }
246
247
       public class ShipFrom {
248
         public String id { get; set; }
```

```
public Integer transactionId { get; set; }
249
250
         public String boundaryLevel { get; set; }
251
         public String line1 { get; set; }
252
         public String city { get; set; }
253
         public String region { get; set; }
         public String postalCode { get; set; }
254
255
         public String country { get; set; }
256
         public Integer taxRegionId { get; set; }
257
258
         public ShipFrom() {
259
         public ShipFrom(JSONParser parser) {
260
261
           while (parser.nextToken() != System.JSONToken.END_OBJECT
262
             if (parser.getCurrentToken() == System.JSONToken.FIELD
263
               String text = parser.getText();
264
               if (parser.nextToken() != System.JSONToken.VALUE_NUL
265
                 if (text == 'id') {
                   id = parser.getText();
266
                 } else if (text == 'transactionId') {
267
268
                   transactionId = parser.getIntegerValue();
                 } else if (text == 'boundaryLevel') {
269
270
                   boundaryLevel = parser.getText();
                 } else if (text == 'line1') {
271
272
                   line1 = parser.getText();
273
                 } else if (text == 'city') {
274
                   city = parser.getText();
                 } else if (text == 'region') {
275
276
                   region = parser.getText();
                 } else if (text == 'postalCode') {
277
                   postalCode = parser.getText();
278
279
                 } else if (text == 'country') {
280
                   country = parser.getText();
281
                 } else if (text == 'taxRegionId') {
                   taxRegionId = parser.getIntegerValue();
282
283
                 } else {
284
                   System.debug(
285
                     LoggingLevel.WARN,
286
                     'ShipFrom consuming unrecognized property: ' +
287
                   );
288
                   consumeObject(parser);
289
                 }
290
               }
291
             }
292
293
         }
294
       }
295
296
       public class UserDefinedFields {
         public String name { get; set; }
297
298
         public String value { get; set; }
299
300
         public UserDefinedFields() {
301
         }
302
         public UserDefinedFields(JSONParser parser) {
           while (parser.nextToken() != System.JSONToken.END_OBJECT
303
304
             if (parser.getCurrentToken() == System.JSONToken.FIELD
305
               String text = parser.getText();
306
               if (parser.nextToken() != System.JSONToken.VALUE_NUL
                 if (text == 'name') {
307
308
                   name = parser.getText();
```

```
} else if (text == 'value') {
309
310
                   value = parser.getText();
311
                 } else {
312
                   System.debug(
313
                     LoggingLevel.WARN,
                     'UserDefinedFields consuming unrecognized prop
314
315
                   );
316
                   consumeObject(parser);
317
                 }
318
               }
319
             }
320
           }
321
322
       }
323
324
       public class Lines {
325
         public String number_Z { get; set; } // in json: number
         public Double quantity { get; set; }
326
327
         public Double amount { get; set; }
328
         public String taxCode { get; set; }
329
         public String customerUsageType { get; set; }
330
         public String entityUseCode { get; set; }
         public String itemCode { get; set; }
331
332
         public String exemptionCode { get; set; }
         public Boolean discounted { get; set; }
333
334
         public Boolean taxIncluded { get; set; }
335
         public String revenueAccount { get; set; }
         public String ref1 { get; set; }
336
         public String ref2 { get; set; }
337
         public String description { get; set; }
339
         public String businessIdentificationNo { get; set; }
         public TaxOverride taxOverride { get; set; }
340
341
         public List<Parameters> parameters { get; set; }
         public List<UserDefinedFields> userDefinedFields { get; se
342
343
         public String hsCode { get; set; }
344
         public Integer merchantSellerId { get; set; }
345
         public String merchantSellerIdentifier { get; set; }
346
         public String marketplaceLiabilityType { get; set; }
347
         public String originationDocumentId { get; set; }
         public String originationSite { get; set; }
348
349
         public String category { get; set; }
350
         public String summary { get; set; }
351
         public Addresses addresses { get; set; }
352
353
         public Lines() {
354
         }
355
         public Lines(JSONParser parser) {
           while (parser.nextToken() != System.JSONToken.END_OBJECT
356
             if (parser.getCurrentToken() == System.JSONToken.FIELD
357
358
               String text = parser.getText();
               if (parser.nextToken() != System.JSONToken.VALUE_NUL
359
360
                 if (text == 'number') {
361
                   number_Z = parser.getText();
                 } else if (text == 'quantity') {
362
                   quantity = parser.getDoubleValue();
363
364
                 } else if (text == 'amount') {
                   amount = parser.getDoubleValue();
365
366
                 } else if (text == 'taxCode') {
                   taxCode = parser.getText();
367
368
                 } else if (text == 'customerUsageType') {
```

```
369
                   customerUsageType = parser.getText();
370
                 } else if (text == 'entityUseCode') {
371
                   entityUseCode = parser.getText();
372
                 } else if (text == 'itemCode') {
373
                   itemCode = parser.getText();
374
                 } else if (text == 'exemptionCode') {
375
                   exemptionCode = parser.getText();
376
                 } else if (text == 'discounted') {
377
                   discounted = parser.getBooleanValue();
378
                 } else if (text == 'taxIncluded') {
379
                   taxIncluded = parser.getBooleanValue();
                 } else if (text == 'revenueAccount') {
380
                   revenueAccount = parser.getText();
381
382
                 } else if (text == 'ref1') {
383
                   ref1 = parser.getText();
384
                 } else if (text == 'ref2') {
385
                   ref2 = parser.getText();
                 } else if (text == 'description') {
                   description = parser.getText();
387
                 } else if (text == 'businessIdentificationNo') {
388
                   businessIdentificationNo = parser.getText();
389
390
                 } else if (text == 'taxOverride') {
                   taxOverride = new TaxOverride(parser);
391
                 } else if (text == 'parameters') {
392
                   parameters = arrayOfParameters(parser);
393
394
                 } else if (text == 'userDefinedFields') {
                   userDefinedFields = arrayOfUserDefinedFields(par
395
                 } else if (text == 'hsCode') {
396
397
                   hsCode = parser.getText();
                 } else if (text == 'merchantSellerId') {
399
                   merchantSellerId = parser.getIntegerValue();
                 } else if (text == 'merchantSellerIdentifier') {
400
401
                   merchantSellerIdentifier = parser.getText();
                 } else if (text == 'marketplaceLiabilityType') {
402
403
                   marketplaceLiabilityType = parser.getText();
                 } else if (text == 'originationDocumentId') {
404
405
                   originationDocumentId = parser.getText();
406
                 } else if (text == 'originationSite') {
407
                   originationSite = parser.getText();
                 } else if (text == 'category') {
408
409
                   category = parser.getText();
410
                 } else if (text == 'summary') {
411
                   summary = parser.getText();
412
                 } else if (text == 'addresses') {
413
                   addresses = new Addresses(parser);
414
                 } else {
415
                   System.debug(
416
                     LoggingLevel.WARN,
                     'Lines consuming unrecognized property: ' + te
417
418
                   );
                   consumeObject(parser);
419
420
421
               }
422
             }
423
           }
424
         }
425
       }
426
427
       public static AvalaraTaxRequest parse(String json) {
428
         System.JSONParser parser = System.JSON.createParser(json);
```

```
429
         return new AvalaraTaxRequest(parser);
430
431
       public static void consumeObject(System.JSONParser parser) {
432
433
         Integer depth = 0;
434
         do {
           System.JSONToken curr = parser.getCurrentToken();
435
436
          if (
            curr == System.JSONToken.START_OBJECT ||
437
            curr == System.JSONToken.START_ARRAY
438
439
           ) {
440
            depth++;
441
           } else if (
442
            curr == System.JSONToken.END_OBJECT ||
            curr == System.JSONToken.END_ARRAY
443
444
          ) {
445
            depth--;
446
          }
447
        } while (depth > 0 && parser.nextToken() != null);
448
449
       private static List<TaxAmountByTaxTypes> arrayOfTaxAmountByT
450
451
        System.JSONParser p
452
      ) {
453
        List<TaxAmountByTaxTypes> res = new List<TaxAmountByTaxTyp
        if (p.getCurrentToken() == null)
454
455
           p.nextToken();
         while (p.nextToken() != System.JSONToken.END_ARRAY) {
456
457
           res.add(new TaxAmountByTaxTypes(p));
458
        }
459
         return res;
460
       }
461
462
       private static List<UserDefinedFields> arrayOfUserDefinedFie
        System.JSONParser p
463
464
465
        List<UserDefinedFields> res = new List<UserDefinedFields>(
        if (p.getCurrentToken() == null)
466
467
          p.nextToken();
468
         while (p.nextToken() != System.JSONToken.END_ARRAY) {
469
           res.add(new UserDefinedFields(p));
470
        }
471
         return res;
472
       }
473
474
       private static List<Parameters> arrayOfParameters(System.JSO
475
         List<Parameters> res = new List<Parameters>();
476
         if (p.getCurrentToken() == null)
           p.nextToken();
477
478
         while (p.nextToken() != System.JSONToken.END_ARRAY) {
479
           res.add(new Parameters(p));
480
481
        return res;
482
       }
483
484
       private static List<Lines> arrayOfLines(System.JSONParser p)
485
         List<Lines> res = new List<Lines>();
486
        if (p.getCurrentToken() == null)
487
           p.nextToken();
488
         while (p.nextToken() != System.JSONToken.END_ARRAY) {
```

```
489 res.add(new Lines(p));

490 }

491 return res;

492 }

493 }
```

# AvalaraTaxRespon se

This class is a DTO used to parse tax response returned by Avalara

```
public class AvalaraTaxResponse {
 2
      public class Addresses {
 3
        public String id { get; set; }
 4
        public String transactionId { get; set; }
 5
        public String boundaryLevel { get; set; }
        public String line1 { get; set; }
 6
        public String line2 { get; set; }
        public String line3 { get; set; }
 8
 9
        public String city { get; set; }
10
        public String region { get; set; }
        public String postalCode { get; set; }
11
        public String country { get; set; }
12
13
        public String taxRegionId { get; set; }
14
        public String latitude { get; set; }
15
        public String longitude { get; set; }
16
17
        public Addresses() {
18
19
        public Addresses(JSONParser parser) {
20
          while (parser.nextToken() != System.JSONToken.END_OBJECT
21
           if (parser.getCurrentToken() == System.JSONToken.FIELD
22
              String text = parser.getText();
23
              if (parser.nextToken() != System.JSONToken.VALUE_NUL
24
               if (text == 'id') {
25
                  id = parser.getText();
26
                } else if (text == 'transactionId') {
27
                  transactionId = parser.getText();
28
                } else if (text == 'boundaryLevel') {
29
                  boundaryLevel = parser.getText();
30
               } else if (text == 'line1') {
31
                 line1 = parser.getText();
32
               } else if (text == 'line2') {
33
                 line2 = parser.getText();
34
                } else if (text == 'line3') {
35
                  line3 = parser.getText();
36
               } else if (text == 'city') {
                  city = parser.getText();
37
38
                } else if (text == 'region') {
39
                 region = parser.getText();
40
                } else if (text == 'postalCode') {
41
                  postalCode = parser.getText();
42
                } else if (text == 'country') {
43
                  country = parser.getText();
44
                } else if (text == 'taxRegionId') {
                  taxRegionId = parser.getText();
45
                } else if (text == 'latitude') {
46
47
                 latitude = parser.getText();
48
                } else if (text == 'longitude') {
49
                  longitude = parser.getText();
50
                } else {
51
                  System.debug(
52
                    LoggingLevel.WARN,
53
                    'Addresses consuming unrecognized property: '
```

```
54
                   consumeObject(parser);
 55
 56
                 }
57
               }
 58
59
 60
61
62
63
       public class Details {
 64
         public String id { get; set; }
         public String transactionLineId { get; set; }
65
         public String transactionId { get; set; }
 66
67
         public String addressId { get; set; }
 68
         public String country { get; set; }
69
         public String region { get; set; }
 70
         public String stateFIPS { get; set; }
         public Decimal exemptAmount { get; set; }
 71
 72
         public String exemptReasonId { get; set; }
 73
         public Boolean inState { get; set; }
 74
         public String jurisCode { get; set; }
 75
         public String jurisName { get; set; }
 76
         public String jurisdictionId { get; set; }
 77
         public String signatureCode { get; set; }
         public String stateAssignedNo { get; set; }
 78
 79
         public String jurisType { get; set; }
 80
         public Decimal nonTaxableAmount { get; set; }
         public String nonTaxableRuleId { get; set; }
81
 82
         public String nonTaxableType { get; set; }
         public Double rate { get; set; }
83
 84
         public String rateRuleId { get; set; }
         public String rateSourceId { get; set; }
85
86
         public String serCode { get; set; }
87
         public String sourcing { get; set; }
88
         public Double tax { get; set; }
89
         public Decimal taxableAmount { get; set; }
90
         public String taxType { get; set; }
91
         public String taxName { get; set; }
 92
         public String taxAuthorityTypeId { get; set; }
         public String taxRegionId { get; set; }
93
94
         public Double taxCalculated { get; set; }
95
         public String taxOverride { get; set; }
 96
         public String rateType { get; set; }
97
         public Double taxableUnits { get; set; }
98
         public Integer nonTaxableUnits { get; set; }
99
         public Double exemptUnits { get; set; }
         public Integer reportingTaxableUnits { get; set; }
100
101
         public Integer reportingNonTaxableUnits { get; set; }
102
         public Integer reportingExemptUnits { get; set; }
103
         public Decimal reportingTax { get; set; }
104
         public Decimal reportingTaxCalculated { get; set; }
105
         public String jurisdictionType { get; set; }
106
         public String taxSubTypeId { get; set; }
         public String rateTypeCode { get; set; }
107
108
         public String unitOfBasis { get; set; }
109
         public Boolean isNonPassThru { get; set; }
110
         public Boolean isFee { get; set; }
111
         public String liabilityType { get; set; }
112
         public String chargedTo { get; set; }
113
```

```
public Details() {
114
115
116
         public Details(JSONParser parser) {
117
           while (parser.nextToken() != System.JSONToken.END_OBJECT
118
             if (parser.getCurrentToken() == System.JSONToken.FIELD
               String text = parser.getText();
119
120
               if (parser.nextToken() != System.JSONToken.VALUE_NUL
                 if (text == 'id') {
121
122
                   id = parser.getText();
                 } else if (text == 'transactionLineId') {
123
124
                   transactionLineId = parser.getText();
                 } else if (text == 'transactionId') {
125
                   transactionId = parser.getText();
126
127
                 } else if (text == 'addressId') {
128
                   addressId = parser.getText();
129
                 } else if (text == 'country') {
130
                   country = parser.getText();
                 } else if (text == 'region') {
131
                   region = parser.getText();
132
                 } else if (text == 'stateFIPS') {
133
134
                   stateFIPS = parser.getText();
135
                 } else if (text == 'exemptAmount') {
                   exemptAmount = parser.getDecimalValue();
136
                 } else if (text == 'exemptReasonId') {
137
                   exemptReasonId = parser.getText();
138
139
                 } else if (text == 'inState') {
140
                   inState = parser.getBooleanValue();
                 } else if (text == 'jurisCode') {
141
142
                   jurisCode = parser.getText();
                 } else if (text == 'jurisName') {
143
144
                   jurisName = parser.getText();
                 } else if (text == 'jurisdictionId') {
145
146
                   jurisdictionId = parser.getText();
                 } else if (text == 'signatureCode') {
147
148
                   signatureCode = parser.getText();
                 } else if (text == 'stateAssignedNo') {
149
150
                   stateAssignedNo = parser.getText();
                 } else if (text == 'jurisType') {
151
152
                   jurisType = parser.getText();
                 } else if (text == 'nonTaxableAmount') {
153
                   nonTaxableAmount = parser.getDecimalValue();
154
                 } else if (text == 'nonTaxableRuleId') {
155
156
                   nonTaxableRuleId = parser.getText();
157
                 } else if (text == 'nonTaxableType') {
158
                   nonTaxableType = parser.getText();
159
                 } else if (text == 'rate') {
                   rate = parser.getDoubleValue();
160
                 } else if (text == 'rateRuleId') {
161
                   rateRuleId = parser.getText();
162
163
                 } else if (text == 'rateSourceId') {
                   rateSourceId = parser.getText();
164
165
                 } else if (text == 'serCode') {
166
                   serCode = parser.getText();
                 } else if (text == 'sourcing') {
167
                   sourcing = parser.getText();
168
169
                 } else if (text == 'tax') {
170
                   tax = parser.getDoubleValue();
171
                 } else if (text == 'taxableAmount') {
172
                   taxableAmount = parser.getDecimalValue();
173
                 } else if (text == 'taxType') {
```

```
174
                   taxType = parser.getText();
175
                 } else if (text == 'taxName') {
176
                   taxName = parser.getText();
177
                 } else if (text == 'taxAuthorityTypeId') {
178
                   taxAuthorityTypeId = parser.getText();
                 } else if (text == 'taxRegionId') {
179
180
                   taxRegionId = parser.getText();
181
                 } else if (text == 'taxCalculated') {
182
                   taxCalculated = parser.getDoubleValue();
183
                 } else if (text == 'tax0verride') {
184
                   taxOverride = parser.getText();
                 } else if (text == 'rateType') {
185
                   rateType = parser.getText();
186
187
                 } else if (text == 'taxableUnits') {
188
                   taxableUnits = parser.getDoubleValue();
                 } else if (text == 'nonTaxableUnits') {
189
190
                   nonTaxableUnits = parser.getIntegerValue();
                 } else if (text == 'exemptUnits') {
191
                   exemptUnits = parser.getDoubleValue();
192
                 } else if (text == 'reportingTaxableUnits') {
193
194
                   reportingTaxableUnits = parser.getIntegerValue()
                 } else if (text == 'reportingNonTaxableUnits') {
195
                   reportingNonTaxableUnits = parser.getIntegerValu
196
                 } else if (text == 'reportingExemptUnits') {
197
                   reportingExemptUnits = parser.getIntegerValue();
198
199
                 } else if (text == 'reportingTax') {
                   reportingTax = parser.getDecimalValue();
200
                 } else if (text == 'reportingTaxCalculated') {
201
                   reportingTaxCalculated = parser.getDecimalValue(
202
                 } else if (text == 'jurisdictionType') {
203
204
                   jurisdictionType = parser.getText();
                 } else if (text == 'taxSubTypeId') {
205
206
                   taxSubTypeId = parser.getText();
                 } else if (text == 'rateTypeCode') {
207
208
                   rateTypeCode = parser.getText();
                 } else if (text == 'unitOfBasis') {
209
210
                   unitOfBasis = parser.getText();
211
                 } else if (text == 'isNonPassThru') {
212
                   isNonPassThru = parser.getBooleanValue();
213
                 } else if (text == 'isFee') {
214
                   isFee = parser.getBooleanValue();
                 } else if (text == 'liabilityType') {
215
216
                   liabilityType = parser.getText();
217
                 } else if (text == 'chargedTo') {
218
                   chargedTo = parser.getText();
219
                 } else {
220
                   System.debug(
221
                     LoggingLevel.WARN,
                     'Details consuming unrecognized property: ' +
222
223
224
                   consumeObject(parser);
225
226
               }
227
             }
228
           }
229
         }
230
       }
231
232
       public String id { get; set; }
233
       public String code { get; set; }
```

```
234
       public String companyId { get; set; }
235
       public String date_Z { get; set; } // in json: date
236
       public String paymentDate { get; set; }
237
       public String status { get; set; }
238
       public String type { get; set; }
       public String batchCode { get; set; }
239
240
       public String currencyCode { get; set; }
241
       public String exchangeRateCurrencyCode { get; set; }
242
       public String customerUsageType { get; set; }
243
       public String entityUseCode { get; set; }
       public String customerVendorCode { get; set; }
244
       public String customerCode { get; set; }
245
       public String exemptNo { get; set; }
246
247
       public Boolean reconciled { get; set; }
248
       public String locationCode { get; set; }
249
       public String reportingLocationCode { get; set; }
       public String purchaseOrderNo { get; set; }
250
       public String referenceCode { get; set; }
251
252
       public String salespersonCode { get; set; }
253
       public Double totalAmount { get; set; }
254
       public Double totalExempt { get; set; }
255
       public Double totalDiscount { get; set; }
256
       public Double totalTax { get; set; }
257
       public Double totalTaxable { get; set; }
       public Double totalTaxCalculated { get; set; }
258
       public String adjustmentReason { get; set; }
259
260
       public Boolean locked { get; set; }
       public String version { get; set; }
261
262
       public String exchangeRateEffectiveDate { get; set; }
       public Double exchangeRate { get; set; }
263
264
       public String description { get; set; }
       public String email { get; set; }
265
266
       public String modifiedDate { get; set; }
       public String modifiedUserId { get; set; }
267
268
       public String taxDate { get; set; }
269
       public List<Lines> lines { get; set; }
270
       public List<Addresses> addresses { get; set; }
271
       public List<Summary> summary { get; set; }
272
       public List<TaxDetailsByTaxType> taxDetailsByTaxType { get;
273
274
       public AvalaraTaxResponse() {
275
276
       public AvalaraTaxResponse(JSONParser parser) {
277
         while (parser.nextToken() != System.JSONToken.END_OBJECT)
278
           if (parser.getCurrentToken() == System.JSONToken.FIELD_N
279
             String text = parser.getText();
             if (parser.nextToken() != System.JSONToken.VALUE_NULL)
280
               if (text == 'id') {
281
282
                 id = parser.getText();
283
               } else if (text == 'code') {
284
                 code = parser.getText();
285
               } else if (text == 'companyId') {
286
                 companyId = parser.getText();
               } else if (text == 'date') {
287
288
                date_Z = parser.getText();
289
               } else if (text == 'paymentDate') {
290
                 paymentDate = parser.getText();
291
               } else if (text == 'status') {
292
                 status = parser.getText();
293
               } else if (text == 'type') {
```

```
294
                 type = parser.getText();
295
               } else if (text == 'batchCode') {
296
                 batchCode = parser.getText();
297
               } else if (text == 'currencyCode') {
298
                 currencyCode = parser.getText();
               } else if (text == 'exchangeRateCurrencyCode') {
299
300
                 exchangeRateCurrencyCode = parser.getText();
               } else if (text == 'customerUsageType') {
301
302
                 customerUsageType = parser.getText();
               } else if (text == 'entityUseCode') {
303
304
                 entityUseCode = parser.getText();
               } else if (text == 'customerVendorCode') {
305
                 customerVendorCode = parser.getText();
306
307
               } else if (text == 'customerCode') {
308
                 customerCode = parser.getText();
309
               } else if (text == 'exemptNo') {
310
                 exemptNo = parser.getText();
               } else if (text == 'reconciled') {
311
                 reconciled = parser.getBooleanValue();
312
               } else if (text == 'locationCode') {
313
                 locationCode = parser.getText();
314
315
               } else if (text == 'reportingLocationCode') {
                 reportingLocationCode = parser.getText();
316
               } else if (text == 'purchaseOrderNo') {
317
                 purchaseOrderNo = parser.getText();
318
319
               } else if (text == 'referenceCode') {
320
                 referenceCode = parser.getText();
               } else if (text == 'salespersonCode') {
321
322
                 salespersonCode = parser.getText();
               } else if (text == 'totalAmount') {
323
324
                 totalAmount = parser.getDoubleValue();
               } else if (text == 'totalExempt') {
325
326
                 totalExempt = parser.getDoubleValue();
               } else if (text == 'totalDiscount') {
327
328
                 totalDiscount = parser.getDoubleValue();
               } else if (text == 'totalTax') {
329
330
                 totalTax = parser.getDoubleValue();
331
               } else if (text == 'totalTaxable') {
332
                 totalTaxable = parser.getDoubleValue();
               } else if (text == 'totalTaxCalculated') {
333
334
                 totalTaxCalculated = parser.getDoubleValue();
               } else if (text == 'adjustmentReason') {
335
336
                 adjustmentReason = parser.getText();
337
               } else if (text == 'locked') {
338
                 locked = parser.getBooleanValue();
339
               } else if (text == 'version') {
                 version = parser.getText();
340
               } else if (text == 'exchangeRateEffectiveDate') {
341
                 exchangeRateEffectiveDate = parser.getText();
342
343
               } else if (text == 'exchangeRate') {
                 exchangeRate = parser.getDoubleValue();
344
345
               } else if (text == 'description') {
346
                 description = parser.getText();
347
               } else if (text == 'email') {
                 email = parser.getText();
348
349
               } else if (text == 'modifiedDate') {
                 modifiedDate = parser.getText();
350
351
               } else if (text == 'modifiedUserId') {
                 modifiedUserId = parser.getText();
352
353
               } else if (text == 'taxDate') {
```

```
354
                 taxDate = parser.getText();
355
               } else if (text == 'lines') {
356
                 lines = arrayOfLines(parser);
357
               } else if (text == 'addresses') {
358
                 addresses = arrayOfAddresses(parser);
359
               } else if (text == 'summary') {
360
                 summary = arrayOfSummary(parser);
               } else if (text == 'taxDetailsByTaxType') {
361
362
                 taxDetailsByTaxType = arrayOfTaxDetailsByTaxType(p
363
               } else {
364
                 System.debug(
365
                   LoggingLevel.WARN,
                   'AvalaraTaxResponse consuming unrecognized prope
366
367
                 );
368
                 consumeObject(parser);
369
               }
370
371
           }
372
         }
373
       }
374
375
       public class NonPassthroughDetails {
376
         public NonPassthroughDetails() {
377
378
         public NonPassthroughDetails(JSONParser parser) {
379
           while (parser.nextToken() != System.JSONToken.END_OBJECT
             if (parser.getCurrentToken() == System.JSONToken.FIELD
380
               String text = parser.getText();
381
               if (parser.nextToken() != System.JSONToken.VALUE_NUL
382
                 {
384
                   System.debug(
385
                     LoggingLevel.WARN,
386
                      'NonPassthroughDetails consuming unrecognized
387
                   );
388
                   consumeObject(parser);
389
390
391
             }
392
           }
393
         }
394
       }
395
       public class TaxDetailsByTaxType {
396
397
         public String taxType { get; set; }
398
         public Decimal totalTaxable { get; set; }
399
         public Double totalExempt { get; set; }
400
         public Decimal totalNonTaxable { get; set; }
         public Double totalTax { get; set; }
401
402
403
         public TaxDetailsByTaxType() {
404
         }
405
         public TaxDetailsByTaxType(JSONParser parser) {
406
           while (parser.nextToken() != System.JSONToken.END_OBJECT
407
             if (parser.getCurrentToken() == System.JSONToken.FIELD
408
               String text = parser.getText();
409
               if (parser.nextToken() != System.JSONToken.VALUE_NUL
                 if (text == 'taxType') {
410
411
                   taxType = parser.getText();
                 } else if (text == 'totalTaxable') {
412
413
                   totalTaxable = parser.getDecimalValue();
```

```
414
                 } else if (text == 'totalExempt') {
415
                   totalExempt = parser.getDoubleValue();
416
                 } else if (text == 'totalNonTaxable') {
417
                   totalNonTaxable = parser.getDecimalValue();
418
                 } else if (text == 'totalTax') {
                   totalTax = parser.getDoubleValue();
419
420
                 } else {
421
                   System.debug(
422
                     LoggingLevel.WARN,
423
                     'TaxDetailsByTaxType consuming unrecognized pr
424
425
                   consumeObject(parser);
426
427
               }
428
             }
429
           }
430
431
432
433
       public class Summary {
434
         public String country { get; set; }
435
         public String region { get; set; }
         public String jurisType { get; set; }
436
         public String jurisCode { get; set; }
437
         public String jurisName { get; set; }
438
439
         public String taxAuthorityType { get; set; }
440
         public String stateAssignedNo { get; set; }
         public String taxType { get; set; }
441
         public String taxSubType { get; set; }
442
         public String taxName { get; set; }
443
444
         public String rateType { get; set; }
         public Double taxable { get; set; }
445
446
         public Double rate { get; set; }
         public Double tax { get; set; }
447
448
         public Double taxCalculated { get; set; }
449
         public Double nonTaxable { get; set; }
450
         public Double exemption { get; set; }
451
452
         public Summary() {
453
454
         public Summary(JSONParser parser) {
455
           while (parser.nextToken() != System.JSONToken.END_OBJECT
             if (parser.getCurrentToken() == System.JSONToken.FIELD
456
457
               String text = parser.getText();
458
               if (parser.nextToken() != System.JSONToken.VALUE_NUL
459
                 if (text == 'country') {
                   country = parser.getText();
460
                 } else if (text == 'region') {
461
462
                   region = parser.getText();
463
                 } else if (text == 'jurisType') {
                   jurisType = parser.getText();
464
465
                 } else if (text == 'jurisCode') {
466
                   jurisCode = parser.getText();
467
                 } else if (text == 'jurisName') {
468
                   jurisName = parser.getText();
469
                 } else if (text == 'taxAuthorityType') {
470
                   taxAuthorityType = parser.getText();
471
                 } else if (text == 'stateAssignedNo') {
472
                   stateAssignedNo = parser.getText();
473
                 } else if (text == 'taxType') {
```

```
474
                   taxType = parser.getText();
475
                 } else if (text == 'taxSubType') {
476
                   taxSubType = parser.getText();
477
                 } else if (text == 'taxName') {
478
                   taxName = parser.getText();
479
                 } else if (text == 'rateType') {
480
                   rateType = parser.getText();
                 } else if (text == 'taxable') {
481
482
                   taxable = parser.getDoubleValue();
483
                 } else if (text == 'rate') {
484
                   rate = parser.getDoubleValue();
                 } else if (text == 'tax') {
485
                   tax = parser.getDoubleValue();
486
                 } else if (text == 'taxCalculated') {
487
488
                   taxCalculated = parser.getDoubleValue();
489
                 } else if (text == 'nonTaxable') {
490
                   nonTaxable = parser.getDoubleValue();
                 } else if (text == 'exemption') {
491
                   exemption = parser.getDoubleValue();
492
493
                 } else {
494
                   System.debug(
495
                     LoggingLevel.WARN,
496
                     'Summary consuming unrecognized property: ' +
497
                   );
                   consumeObject(parser);
498
499
                 }
500
               }
501
502
503
504
505
506
       public class Lines {
         public String id { get; set; }
507
508
         public String transactionId { get; set; }
         public String lineNumber { get; set; }
509
510
         public String customerUsageType { get; set; }
511
         public String entityUseCode { get; set; }
512
         public String description { get; set; }
513
         public Double discountAmount { get; set; }
         public Double exemptAmount { get; set; }
514
515
         public String exemptCertId { get; set; }
516
         public String exemptNo { get; set; }
517
         public Boolean isItemTaxable { get; set; }
518
         public String itemCode { get; set; }
519
         public Double lineAmount { get; set; }
520
         public Double quantity { get; set; }
521
         public String ref1 { get; set; }
         public String ref2 { get; set; }
522
523
         public String reportingDate { get; set; }
524
         public Double tax { get; set; }
525
         public Double taxableAmount { get; set; }
         public Double taxCalculated { get; set; }
526
527
         public String taxCode { get; set; }
         public String taxCodeId { get; set; }
528
529
         public String taxDate { get; set; }
         public Boolean taxIncluded { get; set; }
530
531
         public List<Details> details { get; set; }
532
         public List<NonPassthroughDetails> nonPassthroughDetails {
533
         public String hsCode { get; set; }
```

```
public Double costInsuranceFreight { get; set; }
534
535
         public String vatCode { get; set; }
536
         public String vatNumberTypeId { get; set; }
537
         public String originAddressId { get; set; }
538
         public String destinationAddressId { get; set; }
539
540
         public Lines() {
541
542
         public Lines(JSONParser parser) {
543
           while (parser.nextToken() != System.JSONToken.END_OBJECT
544
             if (parser.getCurrentToken() == System.JSONToken.FIELD
545
               String text = parser.getText();
               if (parser.nextToken() != System.JSONToken.VALUE_NUL
546
                 if (text == 'id') {
547
548
                   id = parser.getText();
                 } else if (text == 'transactionId') {
549
                   transactionId = parser.getText();
550
                 } else if (text == 'lineNumber') {
551
                   lineNumber = parser.getText();
552
                 } else if (text == 'customerUsageType') {
553
554
                   customerUsageType = parser.getText();
555
                 } else if (text == 'entityUseCode') {
                   entityUseCode = parser.getText();
556
                 } else if (text == 'description') {
557
                   description = parser.getText();
558
                 } else if (text == 'discountAmount') {
559
560
                   discountAmount = parser.getDoubleValue();
                 } else if (text == 'exemptAmount') {
561
562
                   exemptAmount = parser.getDoubleValue();
                 } else if (text == 'exemptCertId') {
563
564
                   exemptCertId = parser.getText();
                 } else if (text == 'exemptNo') {
565
566
                   exemptNo = parser.getText();
                 } else if (text == 'isItemTaxable') {
567
568
                   isItemTaxable = parser.getBooleanValue();
                 } else if (text == 'itemCode') {
569
570
                   itemCode = parser.getText();
                 } else if (text == 'lineAmount') {
571
572
                   lineAmount = parser.getDoubleValue();
573
                 } else if (text == 'quantity') {
574
                   quantity = parser.getDoubleValue();
575
                 } else if (text == 'ref1') {
576
                   ref1 = parser.getText();
577
                 } else if (text == 'ref2') {
578
                   ref2 = parser.getText();
579
                 } else if (text == 'reportingDate') {
580
                   reportingDate = parser.getText();
                 } else if (text == 'tax') {
581
582
                   tax = parser.getDoubleValue();
583
                 } else if (text == 'taxableAmount') {
                   taxableAmount = parser.getDoubleValue();
584
585
                 } else if (text == 'taxCalculated') {
                   taxCalculated = parser.getDoubleValue();
586
                 } else if (text == 'taxCode') {
587
588
                   taxCode = parser.getText();
589
                 } else if (text == 'taxCodeId') {
                   taxCodeId = parser.getText();
590
591
                 } else if (text == 'taxDate') {
                   taxDate = parser.getText();
592
593
                 } else if (text == 'taxIncluded') {
```

```
taxIncluded = parser.getBooleanValue();
594
                 } else if (text == 'details') {
595
596
                   details = arrayOfDetails(parser);
597
                 } else if (text == 'nonPassthroughDetails') {
598
                   nonPassthroughDetails = arrayOfNonPassthroughDet
                 } else if (text == 'hsCode') {
599
600
                   hsCode = parser.getText();
                 } else if (text == 'costInsuranceFreight') {
601
602
                   costInsuranceFreight = parser.getDoubleValue();
603
                 } else if (text == 'vatCode') {
604
                   vatCode = parser.getText();
                 } else if (text == 'vatNumberTypeId') {
605
                   vatNumberTypeId = parser.getText();
606
607
                 } else if (text == 'originAddressId') {
608
                   originAddressId = parser.getText();
                 } else if (text == 'destinationAddressId') {
609
610
                   destinationAddressId = parser.getText();
611
                 } else {
612
                   System.debug(
613
                     LoggingLevel.WARN,
614
                     'Lines consuming unrecognized property: ' + te
615
                   );
616
                   consumeObject(parser);
617
                 }
618
619
             }
620
           }
621
         }
622
623
624
       public static AvalaraTaxResponse parse(String json) {
         System.JSONParser parser = System.JSON.createParser(json);
625
626
         return new AvalaraTaxResponse(parser);
627
628
       public static void consumeObject(System.JSONParser parser) {
629
630
         Integer depth = 0;
631
632
           System.JSONToken curr = parser.getCurrentToken();
633
           if (
634
             curr == System.JSONToken.START_OBJECT ||
             curr == System.JSONToken.START_ARRAY
635
636
           ) {
637
             depth++;
638
          } else if (
639
             curr == System.JSONToken.END_OBJECT ||
640
            curr == System.JSONToken.END_ARRAY
641
           ) {
642
            depth--;
643
644
         } while (depth > 0 && parser.nextToken() != null);
645
646
647
       private static List<Addresses> arrayOfAddresses(System.JSONP
648
         List<Addresses> res = new List<Addresses>();
649
         if (p.getCurrentToken() == null)
           p.nextToken();
650
651
         while (p.nextToken() != System.JSONToken.END_ARRAY) {
652
           res.add(new Addresses(p));
653
```

```
654
         return res;
655
      }
656
       private static List<Details> arrayOfDetails(System.JSONParse
657
658
         List<Details> res = new List<Details>();
659
         if (p.getCurrentToken() == null)
660
          p.nextToken();
661
        while (p.nextToken() != System.JSONToken.END_ARRAY) {
662
           res.add(new Details(p));
663
        }
664
        return res;
665
      }
666
667
       private static List<Lines> arrayOfLines(System.JSONParser p)
668
        List<Lines> res = new List<Lines>();
        if (p.getCurrentToken() == null)
669
670
          p.nextToken();
        while (p.nextToken() != System.JSONToken.END_ARRAY) {
671
672
           res.add(new Lines(p));
673
        }
674
        return res;
675
      }
676
677
       private static List<Summary> arrayOfSummary(System.JSONParse
678
         List<Summary> res = new List<Summary>();
679
        if (p.getCurrentToken() == null)
680
           p.nextToken();
         while (p.nextToken() != System.JSONToken.END_ARRAY) {
681
682
           res.add(new Summary(p));
683
        }
684
         return res;
685
      }
686
687
       private static List<TaxDetailsByTaxType> arrayOfTaxDetailsBy
        System.JSONParser p
688
689
690
        List<TaxDetailsByTaxType> res = new List<TaxDetailsByTaxTy
691
        if (p.getCurrentToken() == null)
692
          p.nextToken();
693
         while (p.nextToken() != System.JSONToken.END_ARRAY) {
694
           res.add(new TaxDetailsByTaxType(p));
695
        }
696
         return res;
697
       }
698
699
       private static List<NonPassthroughDetails> arrayOfNonPassthr
700
        System.JSONParser p
      ) {
701
702
        List<NonPassthroughDetails> res = new List<NonPassthroughD
703
         if (p.getCurrentToken() == null)
704
           p.nextToken();
         while (p.nextToken() != System.JSONToken.END_ARRAY) {
705
706
           res.add(new NonPassthroughDetails(p));
707
         }
708
         return res;
709
710 }
711
712
```

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image-20240411-170839.png	yesterday at 10:29 PM by Manoj Tyagi
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