

# Test Data Manager - DevTest Integration Use case - Explained with pictures

# USE CASE HAS BEEN VALIDATED WITH TDM 4.7 and Devtest 10.2 and 10.4

We have a pretty good integration use case story with Test Data Manager and DevTest.

<https://docops.ca.com/ca-test-data-manager/4-7/en/provisioning-test-data/defining-test-data/defining-test-data-using-the-ca-tdm-portal/prepare-test-data-for-non-relational-data-sources/xsd-xml-wsdl-json-rr-pair-file-types/integration-with-ca-service-virtualization>

The main use case being, "The ability to augment Virtual service with the synthetic data that is generated by TDM"

The documentation available is pretty lucid and well structured. Though it can wear you out with too many steps involved. Nevertheless it works well as I was able to achieve the following by sticking to the product doc

## TDM SIDE

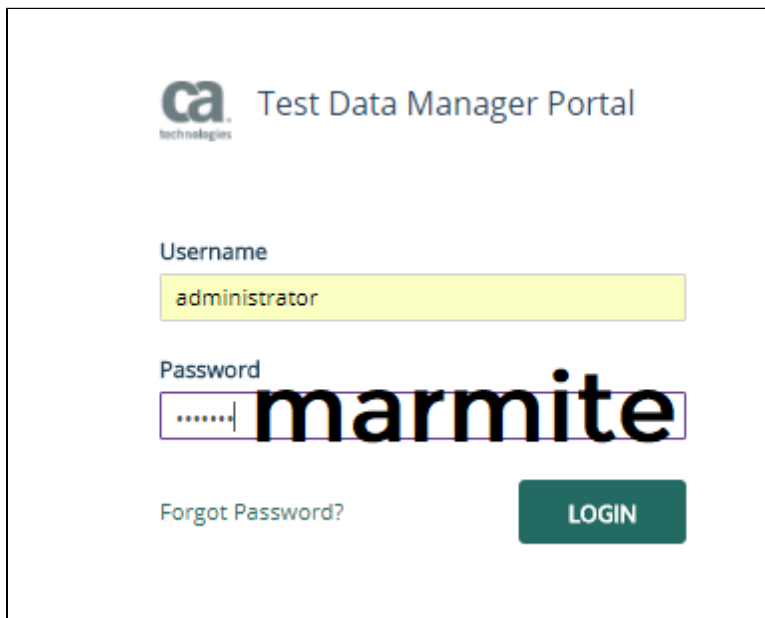
1. Define a project
2. Register a WSDL which creates an object for you
3. Define DB Connection
4. Create derived objects from WSDL into DB
5. Define GENERATOR
6. Import single data from RR pair
7. Define Devtest portal connection
8. Define data generation rules
9. Generate synthetic data
10. Export synthetic data to VS
11. Verify if the VS has been augmented with synthetic data from TDM

## DevTest Side

Create VS using WSDL

## A picture is worth 10,000 words - The story in pictures

Login to portal first



ca Test Data Manager Portal  
technologies

Username  
administrator

Password  
.....marmite

Forgot Password? LOGIN

The screenshot shows the CA Test Data Manager Portal. The top navigation bar includes the CA Technologies logo, a 'Project: 102 [1.0]' dropdown, a gear icon for settings, and a user profile 'administrator'. A red arrow points from the 'Click here to create a new project' text to the gear icon. The left sidebar lists various features: Modeling, Data Masking, PII Audit, Generators, Orchestration, Self Service Flows, Self Service Catalog, Submitted Requests, My Reservations, My Clones, vTDM, and Configuration. The main content area has a 'Welcome to CA Test Data Manager Portal' message, followed by 'Below are some simple steps to get you started.' and a bold instruction: 'Click here to create a new project'. Below this is a 'Projects and Versions' section with a dropdown menu. Step 1 is titled 'Create a project and version, or select an existing one.' and instructs the user to click the 'Project Manager' gear icon in the top right. Step 2 is titled 'Data Modeling and Data Generation' and instructs the user to 'Model your data and then generate!' by registering files like XSD or XML. A small icon of a document with a gear is shown next to step 2.

Project: 102 [1.0]

administrator


## Welcome to CA Test Data Manager Portal

Below are some simple steps to get you started.

**Click here to create a new project**

### Projects and Versions

Project: Select a project and version

- 1** Create a project and version, or select an existing one.  
Click Project Manager  in the top right of the page, New Project, and name the project and first version. Now you're ready to start modeling your data.
- 2** **Data Modeling and Data Generation**  
Model your data and then generate!  
Model your data by registering files such as XSD or XML and

Manage Projects

NEW PROJECT

Search

Name	Description	Actions
> 102	102	+ x
> HumanaWsd	Hello	+ x
> NewSupplier1	NewSupplier1	+ x
> QTP - Example	QTP - Example Project	+ x
> SOA - Example	SOA - Example Project	+ x
> StoreFront - Exi	StoreFront - Oracle	+ x
> StoreFront - Exi	StoreFront - Example Proje...	+ x
> Training - Trave	Training - Travel System - ...	+ x
> Training - Trave	Training - Travel System - ...	+ x

<<

<

1

>

>>

Projects > New Project

New Project

Name \*

BlogDemo

Version \*

1.0

Description \*

BlogDemo

Version Description

Version related descriptive text

☒ All new versions inherit tables from previous version

SAVE

CANCEL

Switch the context to the newly created project from top right corner and then follow rest of the screens

Test Data Manager Portal

Modeling

Environments

Data Model

Find & Reserve

Objects

Variables

Data Masking

PII Audit

Generators

Orchestration

Objects

DELETE

REGISTER NEW OBJECT(S)

CREATE GENERATOR

ObjectID	Name
----------	------

Test Data Manager Portal

Modeling

Environments

Data Model

Find & Reserve

Objects

Variables

Data Masking

PII Audit

Generators

Orchestration

Objects > Register New Object(s)

Register New Object(s)

Object Type \*

SELECT OBJECT TYPE

XSD

WSDL

XML

R/R PAIR

JSON

TABLE

Project: BlogDemo [ 1.0 ] administrator

**Modeling**

- Environments
- Data Model
- Find & Reserve
- Objects**
- Variables
- Data Masking
- PII Audit
- Generators
- Orchestration
- Self Service Flows
- Self Service Catalog
- Submitted Requests
- My Reservations

Objects > Register New Object(s)

## Register New Object(s)

Object Type \*  
WSDL

Name \*  
BlogDemoWSDL ✓ 1

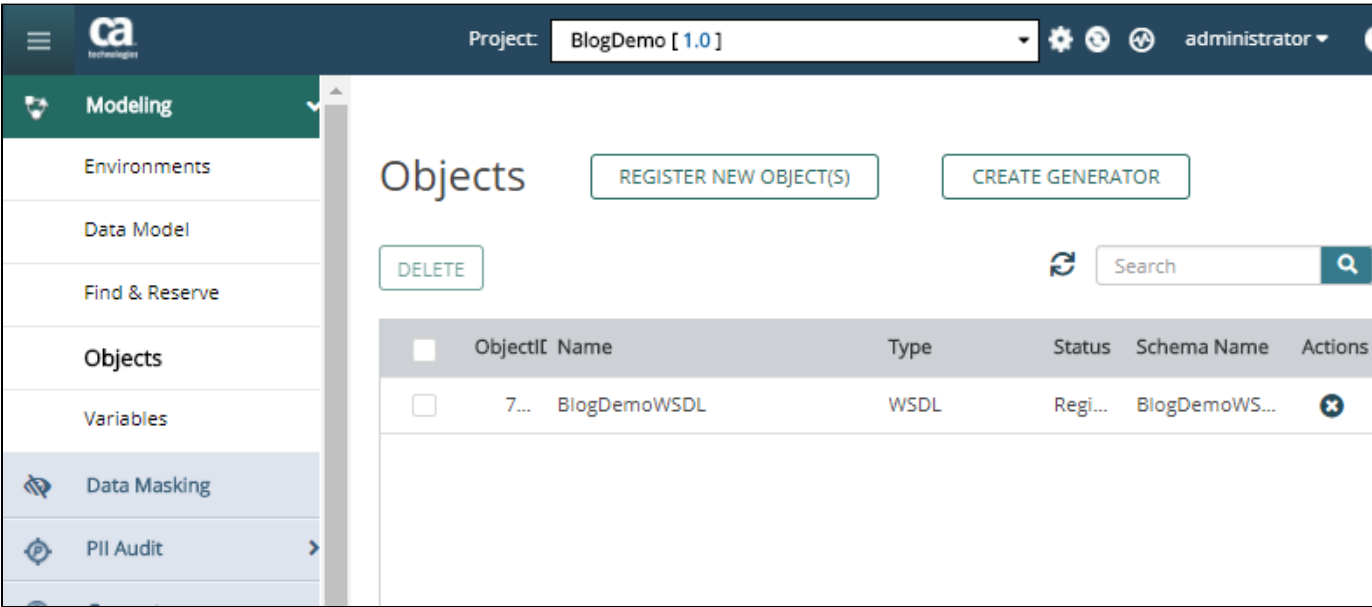
File(s) to Upload \*  
Drag and Drop file (or click)  
Uploaded Files  
medicare.wSDL Complete ✕ 2

Object URL  
http://

> Advanced Settings

3  
REGISTER CANCEL

Once registerd, the WSDL object would appear in the Objects lilst



At this point, we need to create a Database in SQL Server which can hold the TABLES that are derived from the WSDL definition. For the sake of demo, I have created a fresh Database in SQL Server with name as BlogDemo and this DB connection need to be defined in TDM.

New Database

Select a page

General

Options

Filegroups

Connection

Server:  
NATSA03-7520\CASMDB,51001

Connection:  
sa

View connection properties

Progress

Ready

Script Help

Database name:  
BlogDemo

Owner:  
<default>

☒ Use full-text indexing

Database files:

Logical Name	File Type	Filegroup	Initial Size (MB)	Autogrowth / Maxsize
BlogDemo	ROWS...	PRIMARY	8	By 64 MB, Unlimited
BlogDemo_log	LOG	Not Applicable	8	By 64 MB, Unlimited

Add

Remove

OK

Cancel

ca  
Technologies

Test Data Manager Portal

Modeling >

Data Masking

PII Audit >

Generators

Orchestration >

Self Service Flows

Self Service Catalog

Submitted Requests

My Reservations

My Clones

vTDM

Configuration

Connection Profiles

Access Control

ALM Credentials

Masking

Mail Server

Connection Profiles 3

NEW PROFILE

Source Profile: <None>    Target Profile: <None>

Profile Name
102s1
h102
Supplier_Connection_Profile

Define the DB Connection and then click **TEST** followed by **SAVE**. Once saved, the new connection profile should appear in the list of available connection profiles.

## Add New Connection Profile

Profile Name \*

BlogDemoDBConnection ✓

Description

BlogDemoDBConnection ✓

DBMS

SQL Server ▼

Server \*

natsa03-7520.ca.com ✓

Port

51001 ✓

SQL Server Instance Name

casmdb ✓

Use a Specific Database

☐ Do not specify a database

☒ Use named database:

Database Name

BlogDemo ✓

Use a Specific DBMS Schema

☒ Do not specify a schema

☐ Use named schema:

Schema Name

Schema name

☐ Integrated Security (Windows credentials)

User Name \*

sa ✓

Password \*

..... ✓

TEST

SAVE

CANCEL

The next step is to create and register derived objects, meaning, we identify WSDL operation and create tables in DB

ca  
technologies

Test Data Manager Portal

Modeling

Environments

Data Model

Find & Reserve

Objects

Variables

Objects

REGISTER NEW OBJECT(S)

CREATE GENERATOR

DELETE

	ObjectID	Name
<input type="checkbox"/>	740	BlogDemoWSDL

1

2

3

Select one among the many WSDL operations, choose the DB connection and create tables. You would be able to see that, there are tables created in the DB.

Objects > BlogDemoWSDL

## BlogDemoWSDL

Type: WSDL Schema Name: BlogDemoWSDL\_740

**Derived Tables**

WSDL Operation \*

Operation	Port Type	Port Binding	Port Binding Namespace
GetSupplierBy...	MediCa...	MediCare...	http://www.webservice...
GetSupplierBy...	MediCa...	MediCare...	http://www.webservice...
GetSupplierBy...	MediCa...	MediCare...	http://www.webservice...
GetSupplierBy...	MediCa...	MediCare...	http://www.webservice...
GetSupplierBy...	MediCa...	MediCare...	http://www.webservice...
GetSupplierBy...	MediCa...	MediCare...	http://www.webservice...

2

Connection Profile \*

BlogDemoDBConnection ▼

3

> Advanced Settings

**CREATE AND REGISTER TABLES**

[Objects](#) > [BlogDemoWSDL](#)

BlogDemoWSDL

Type

WSDL

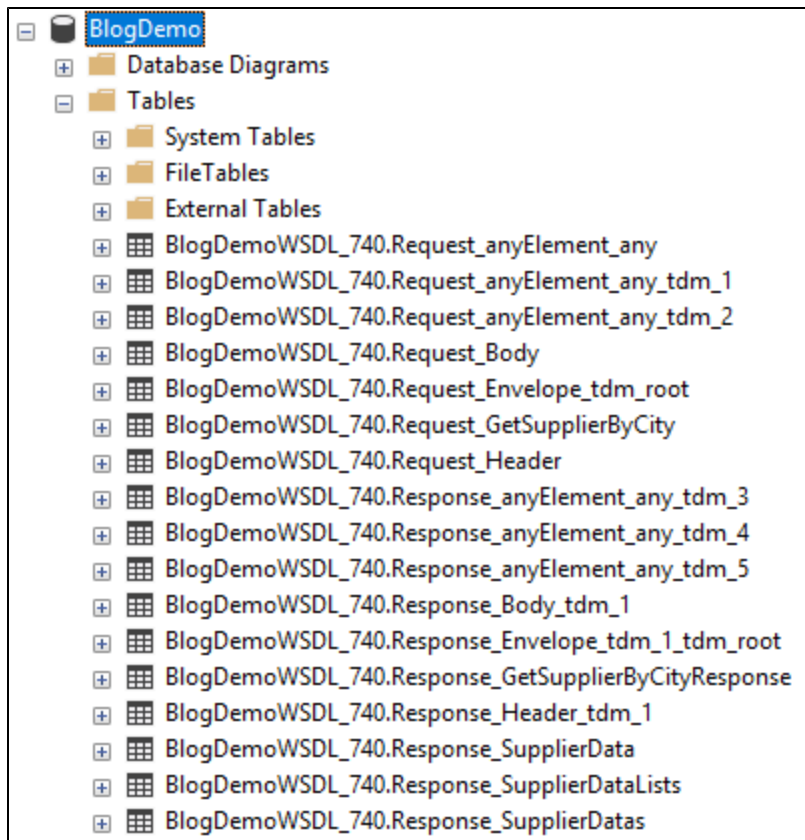
Schema Name

BlogDemoWSDL\_740

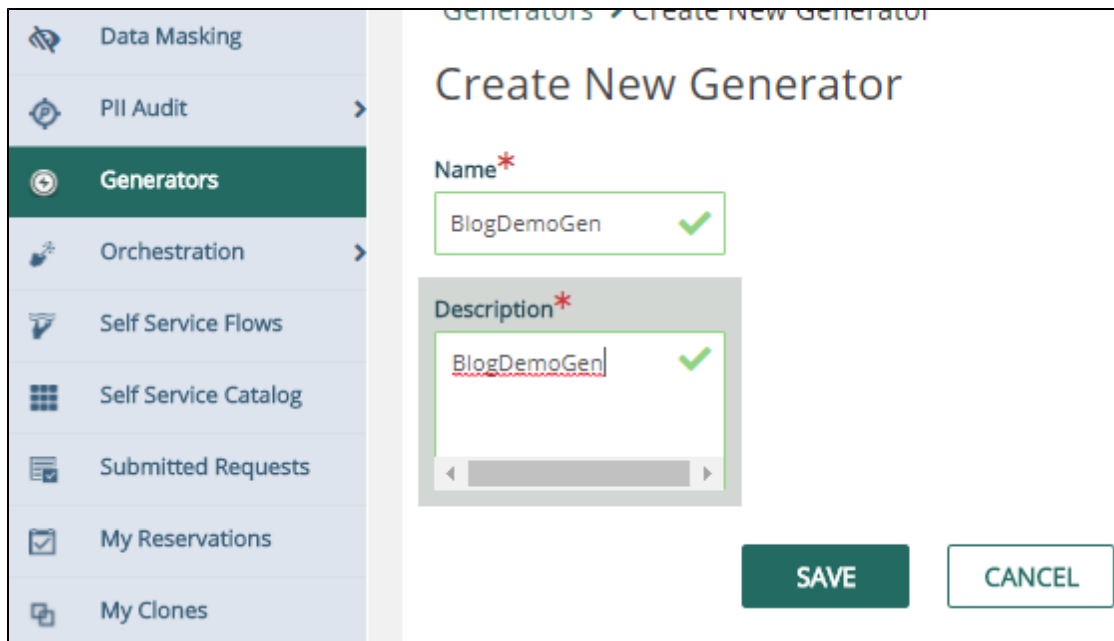
## Derived Tables

Table Name
Request_anyElement_any
Request_anyElement_any_tdm_1
Request_anyElement_any_tdm_2
Request_Body
Request_Envelope_tdm_root
Request_GetSupplierByCity
Request_Header
Response_anyElement_any_tdm_3
Response_anyElement_any_tdm_4
Response_anyElement_any_tdm_5

« < 1 2 > »



Next step is to create a **GENERATOR** object which is necessary to import RR pairs from a file to the derived DB Tables.



The screenshot shows the 'Create New Generator' form in the Broadcom interface. On the left is a navigation menu with the following items: Data Masking, PII Audit, Generators (highlighted), Orchestration, Self Service Flows, Self Service Catalog, Submitted Requests, My Reservations, and My Clones. The main form area is titled 'Create New Generator' and contains two required fields, both marked with a red asterisk (\*). The 'Name' field contains the text 'BlogDemoGen' and has a green checkmark to its right. The 'Description' field also contains the text 'BlogDemoGen' and has a green checkmark to its right. At the bottom right of the form are two buttons: 'SAVE' and 'CANCEL'.

## Importing RR pairs from a file to the derived DB Tables

Go back to the objects list from Modeling and click on the BlogDemoWSDL object

Test Data Manager Portal

Modeling

Environments

Data Model

Find & Reserve

Objects

Variables

Data Masking

Objects

REGISTER NEW OBJECT(S)

CREATE GENERATOR

DELETE

ObjectID	Name
740	BlogDemoWSDL

Click on the Import icon and fill in details. Drag and Drop request and response XML files. You would find a set of sample files here: <https://docops.ca.com/ca-test-data-manager/4-7/en/files/506915874/506915877/1/1490769780334/medicare.wsdl>

[https://docops.ca.com/ca-test-data-manager/4-7/en/files/506915874/506915878/1/1490769780326/medicare\\_request.xml](https://docops.ca.com/ca-test-data-manager/4-7/en/files/506915874/506915878/1/1490769780326/medicare_request.xml)

[https://docops.ca.com/ca-test-data-manager/4-7/en/files/506915874/506915879/1/1490769780317/medicare\\_response.xml](https://docops.ca.com/ca-test-data-manager/4-7/en/files/506915874/506915879/1/1490769780317/medicare_response.xml)

Once imported, you would notice that the DB table is filled with records.

Objects > BlogDemoWSDL

BlogDemoWSDL

Type: WSDL

Schema Name: BlogDemoWSDL\_740

Connection Profile: BlogDemoDBConnection

Derived Tables

Table Name
Request_anyElement_any
Request_anyElement_any_tdm_1
Request_anyElement_any_tdm_2
Request_Body
Request_Envelope_tdm_root
Request_GetSupplierByCity
Request_Header
Response_anyElement_any_tdm_3
Response_anyElement_any_tdm_4
Response_anyElement_any_tdm_5

« < 1 2 > »

Import Data

Object Name: BlogDemoWSDL

Document Group ID:

R/R PAIR Link ID \*  
r1 ✓

Advanced Settings

Request-File to Upload \*  
Drag and Drop file (or click)

Response-File to Upload \*  
Drag and Drop file (or click)

Import To Generator  
Data Generator Connection \*  
BlogDemoGen

Object Explorer

Connect

- qatest\_171
- SupplierDB
- sv\_iam
- sv\_iam2
- USS\_casm\_r171
- USS\_qatest\_171
- vsc103
- 102supplierDB
- H102
- BlogDemo
  - Database Diagrams
  - Tables
    - System Tables
    - FileTables
    - External Tables
    - BlogDemoWSDL\_740.Request\_anyElement\_any
    - BlogDemoWSDL\_740.Request\_anyElement\_any\_tdm\_1
    - BlogDemoWSDL\_740.Request\_anyElement\_any\_tdm\_2
    - BlogDemoWSDL\_740.Request\_Body
    - BlogDemoWSDL\_740.Request\_Envelope\_tdm\_root
    - BlogDemoWSDL\_740.Request\_GetSupplierByZipCode
    - BlogDemoWSDL\_740.Request\_Header
    - BlogDemoWSDL\_740.Response\_anyElement\_any\_tdm\_3
    - BlogDemoWSDL\_740.Response\_anyElement\_any\_tdm\_4
    - BlogDemoWSDL\_740.Response\_anyElement\_any\_tdm\_5
    - BlogDemoWSDL\_740.Response\_Body\_tdm\_1
    - BlogDemoWSDL\_740.Response\_Envelope\_tdm\_1\_tdm\_root
    - BlogDemoWSDL\_740.Response\_GetSupplierByZipCodeRespon:
    - BlogDemoWSDL\_740.Response\_Header\_tdm\_1
    - BlogDemoWSDL\_740.Response\_SupplierData
    - BlogDemoWSDL\_740.Response\_SupplierDataLists
    - BlogDemoWSDL\_740.Response\_SupplierDatas

SQLQuery30.sql - N...logDemo (sa (244))

SQLQuery29.sql - N...logDemo (sa (243))

```

/***** Script for SelectTopNRows command from SSMS *****/
SELECT TOP (1000) [SHRED_ID]
, [SHRED_GROUP_ID]
, [SupplierNumber]
, [CompanyName]
, [Address1]
, [Address2]
, [City]
, [State]
, [Zip]
, [ZipPlus4]
, [Telephone]
, [Description]
, [IsSupplierParticipating]
, [Response_SupplierDats_SHRED_ID]
FROM [BlogDemo].[BlogDemoWSDL_740].[Response_SupplierData]
  
```

100 %

Results Messages

	SHRED_ID	SHRED_GROUP_ID	SupplierNumber	CompanyName	Address1	Address2	City
1	1943	NULL	0194080005	DOCS DRUGS LTD	1020 MAPLE AVE		LISLI

**The next step in the integration is to do things on Devtest side. Create a virtual service using WSDL file. This would create a default implementation for all the WSDL operations; getSupplierByZipCode,**

# GetSupplierBySupplyType, GetSupplierByCity

BlogDemo

BlogDemo  
[SE\_Issues]

Description:

Advanced Mode

Transactions

Service Configuration

View: Stateless Transactions

Q

Search Options

Filters

Stateless Signatures (3)

1532 GetSupplierByZipCode

1533 GetSupplierBySupplyType

1534 GetSupplierByCity

Specifics

Signature Definition

Request Data Arguments

1538 GetSupplierByZipCode

Name	Operator	Value	Magic String
zip	=	AEBKGd5gseV	
Default			

Response Data

1 1 / 1

Think time spec: 0

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xs
3 <soapenv:Body>
4 <GetSupplierByZipCodeResponse xmlns="http://www.webservices.net/">
5 <GetSupplierByZipCodeResult>{<:GetSupplierByZipCodeResult:[1,0]></GetSuppl
6 <SupplierDataLists>
7 <!--SupplierData is optional-->
8 <SupplierData>
9 <!--SupplierData is optional, but can have an unlimited number of instance
10 <SupplierData>
11 <!--SupplierNumber is optional-->
12 <SupplierNumber>{<:Nbeanshell% com.ca.sv.devtest.util.GenerateString.for
13 <!--CompanyName is optional-->
14 <CompanyName>{<:Nbeanshell% com.ca.sv.devtest.util.GenerateString.forReg
15 <!--Address1 is optional-->
16 <Address1>{<:Nbeanshell% com.ca.sv.devtest.util.GenerateString.forRegEx(
17 <!--Address2 is optional-->
18 <Address2>{<:Nbeanshell% com.ca.sv.devtest.util.GenerateString.forRegEx(
19 <!--City is optional-->
20 <City>{<:Nbeanshell% com.ca.sv.devtest.util.GenerateString.forRegEx("[A-
21 <!--State is optional-->
22 <State>{<:Nbeanshell% com.ca.sv.devtest.util.GenerateString.forRegEx("[A
23 <!--Zip is optional-->
24 <Zip>{<:Nbeanshell% com.ca.sv.devtest.util.GenerateString.forRegEx("[A-Z
25 <!--ZipPlus4 is optional-->
26 <ZipPlus4>{<:Nbeanshell% com.ca.sv.devtest.util.GenerateString.forRegEx(
27 <!--Telephone is optional-->
28 <Telephone>{<:Nbeanshell% com.ca.sv.devtest.util.GenerateString.forRegEx
29 <!--Description is optional-->
30 <Description>{<:Nbeanshell% com.ca.sv.devtest.util.GenerateString.forReg
31 <!--IsSupplierParticipating is optional-->
```

## Next comes the CORE of TDM-Devtest Integratiton Piece. Using TDM, you could generate synthetic data and augment the Virtual Service (VS) with the synthetic data set. Lets see how this is done:

Open the Generator and click on the generator object and then click on 'Relational Edit' and then select those 2 check boxes and click OK.

The screenshot shows the Test Data Manager Portal interface. The top navigation bar includes the 'ca technologies' logo, the title 'Test Data Manager Portal', a project dropdown set to 'BlogDemo [ 1.0 ]', and user information 'administrator'. The left sidebar contains a menu with options: Modeling, Environments, Data Model, Find & Reserve, Objects, Variables, Data Masking, PII Audit, and Generators (highlighted). The main content area is titled 'Generators' and features a 'NEW GENERATOR' button and a search bar. Below this is a table listing generators:

Generator Name	Description	Available for Self Service	Project	Version Name	Action
BlogDemoGen	BlogDemoGen	No	BlogDemo	1.0	

Below the table, there is a section for 'BlogDemoGen' with details: Description (BlogDemoGen), ID (2394), Project (BlogDemo), and a 'P' icon. Below this are buttons for 'SELECT TABLES', 'ACTIONS', 'CONFIGURATIONS', 'RELATIONAL EDIT' (highlighted with a red box and labeled '1'), 'VARIABLES', 'PUBLISH', and a list icon. A 'No Tables Selected' message is displayed at the bottom left. A 'Relational Edit' dialog box is open on the right, containing two checked checkboxes: 'Make All Children References' (labeled '2') and 'Make All Parents default'. The dialog has 'OK' and 'CANCEL' buttons.

Once you click OK, certain changes happen to the way the tables are maintained by TDM. You would be shown the result of this operation:

### Relational Editor Results

**Child References Result**

Request_Envelope_tdm_root	3 Child Rows Updated
Request_Body	1 Child Rows Updated
Request_Header	0 Child Rows Updated
Response_Envelope_tdm_1_tdm_root	1 Child Rows Updated
Request_GetSupplierByZipCode	0 Child Rows Updated
	1 Child Rows

**Parent Default Result**

Request_Envelope_tdm_root	2 Parent Rows Updated
Request_Body	1 Parent Rows Updated
Request_Header	1 Parent Rows Updated
Response_Envelope_tdm_1_tdm_root	1 Parent Rows Updated
Request_GetSupplierByZipCode	1 Parent Rows Updated
	1 Parent Rows

WARNING: By clicking OK the page will get refreshed and any unsaved data will be lost. Alternatively, you can chose to close the dialog.

OK

The next step is to alter DATA Generation rules. You do this as shown below. For this just click on the generator and then click on 'Select Tables' which will bring all the tables that were created earlier.

The screenshot shows the 'Modeling' sidebar on the left with 'Generators' selected. The main area displays 'BlogDemoGen' with details: Description (BlogDemoGen), ID (2394), Project (BlogDemo), and Project Version (1.0). There is a checkbox for 'Available for Self Service'. Below the details is a row of buttons: 'SELECT TABLES', 'ACTIONS', 'CONFIGURATIONS', 'RELATIONAL EDIT', 'VARIABLES', and 'PUBLISH'. The 'SELECT TABLES' button is highlighted with a red box, and a red arrow points to it from the 'Generators' tab in the sidebar. Below the buttons, it says 'No Tables Selected'.

Just click on the table 'Response\_SupplierData' and then you would be able to edit the data generation rules.

Generators > BlogDemoGen

BlogDemoGen

Description

ID

Project

Project Version

BlogDemoGen

2394

BlogDemo

1.0

Response\_SupplierData

Row	* SHRED_ID	SHRED_GROUP_ID	SupplierNumber	CompanyName	Address1	Address2
1	@nextval(SHRED_ID_SEQ)		0194080005	DOCS DRUGS LTD	1020 MAPLE AVE	
4						

Registered Tables

FIND

Name	Schema	Order	Rows	Used
> Request_Envelope_tdm_root	BlogDemo1_827	1	1	Yes
> Request_Body	BlogDemo1_827	2	1	Yes
> Request_Header	BlogDemo1_827	3	1	Yes
> Response_Envelope_tdm_1_tdm_root	BlogDemo1_827	5	1	Yes
> Request_GetSupplierByZipCode	BlogDemo1_827	6	1	Yes
> Response_Body_tdm_1	BlogDemo1_827	9	1	Yes
> Response_GetSupplierByZipCodeRespo...	BlogDemo1_827	12	1	Yes
> Response_SupplierDataLists	BlogDemo1_827	15	1	Yes
> Response_SupplierDataSas	BlogDemo1_827	16	1	Yes
> Response_SupplierData	BlogDemo1_827	17	1	Yes
> Request_anyElement_any	BlogDemo1_827	4	0	No
> Request_anyElement_any_tdm_1	BlogDemo1_827	7	0	No
> Request_anyElement_any_tdm_2	BlogDemo1_827	8	0	No
> Response_Header_tdm_1	BlogDemo1_827	10	0	No
> Response_anyElement_any_tdm_3	BlogDemo1_827	11	0	No
> Response_anyElement_any_tdm_4	BlogDemo1_827	13	0	No
> Response_anyElement_any_tdm_5	BlogDemo1_827	14	0	No

**Use the following rules**

- SHRED\_ID: @nextval(SHRED\_ID\_SEQ)@
- SupplierNumber: @randlov(0,@seedlist(Car Parts)@)@
- CompanyName: @randlov(0,@seedlist(Companies)@)@ LTD
- Address1: @randlov(0,@seedlist(US Address Line 1)@,1)@
- City: @randlov(0,@seedlist(US City State Zip County)@,1)@
- Zip: ^Request\_GetSupplierByZipCode.zip(1)^
- ZipPlus4: @randlov(0,@seedlist(US City State Zip County)@,2)@
- Telephone: @randrange(2300,9800)@
- Description: (@randrange(110,999)@)@randrange(110,999)@-@randrange(1110,1999)@
- Response\_SupplierData\_SHRED\_ID: ^Response\_SupplierData.SHRED\_ID(1)^
- MAKE SURE YOU ADD THE RULE FOR REQUEST\_GETSUPPLIERBYZIPCODE table's zip field too as shown below

Response\_SupplierData

Row	SHRED_GROUP_ID	SupplierNumber	CompanyName	Address1	Address2	City	State	Zip	ZipPlus4	Telephone	Description
1		@randlov(0,@seedlist(Ca...	@randlov(0,@seedlist(C...	@randlov(0,@seedlist(U...		@randlov(0,@seedlist(U...		^Request_GetSupplierBy...	@randlov(0,@seedlist(U...	@randrange(2300,9800)@	(@randrange(110,999)@)@randrange(110,999)@-@randrange(1110,1999)@

Request\_GetSupplierByZipCode

Row	* SHRED_ID	SHRED_GROUP_ID	zip	* Request_Body_SHRED_ID
1	@nextval(SHRED_ID_SEQ)@		@randrange(1000,10000)@	^Request_Body.SHRED_ID(1)^

## Synthetic Data Generation Step

Click Publish button at the top which will bring up a page as shown below and click Publish

Generators > BlogDemoGen > Publish

▼ Publish From\*

BlogDemo1\_827

Search Table Names

✓	Table Name	Seq	# Rows	Schema	Table Count	Publish Options	Stored Columns	✱ Publish to Location
✓	Request_Envelope_tdm_root	1	1	BlogDemo1...	1	✱ Use publish level setting	✱	✱ BlogDemoDBConnection...
✓	Request_Body	2	1	BlogDemo1...	1	✱ Use publish level setting	✱	✱ BlogDemoDBConnection...
✓	Request_Header	3	1	BlogDemo1...	1	✱ Use publish level setting	✱	✱ BlogDemoDBConnection...
✓	Response_Envelope_tdm_1_t...	5	1	BlogDemo1...	1	✱ Use publish level setting	✱	✱ BlogDemoDBConnection...
✓	Request_GetSupplierByZipC...	6	1	BlogDemo1...	1	✱ Use publish level setting	✱	✱ BlogDemoDBConnection...
✓	Response_Body_tdm_1	9	1	BlogDemo1...	1	✱ Use publish level setting	✱	✱ BlogDemoDBConnection...
✓	Response_GetSupplierByZip...	12	1	BlogDemo1...	1	✱ Use publish level setting	✱	✱ BlogDemoDBConnection...
✓	Response_SupplierDataLists	15	1	BlogDemo1...	1	✱ Use publish level setting	✱	✱ BlogDemoDBConnection...
✓	Response_SupplierDatas	16	1	BlogDemo1...	1	✱ Use publish level setting	✱	✱ BlogDemoDBConnection...
✓	Response_SupplierData	17	1	BlogDemo1...	1	✱ Use publish level setting	✱	✱ BlogDemoDBConnection...

Publish To\* ☒ Connection Profile ☐ File

BlogDemoDBConnection

Source Connection Profile

SELECT SOURCE CONNECTION PROFILE

Repeat\*

10

Variables

Default Values

Email

Schedule Publish

☒ Now ☐ Schedule 22 Mar 2019 03:38 PM

Options

PUBLISH CANCEL

Once you click PUBLISH, a job is submitted and its status can be monitored as shown below

ca

Test Data Manager Portal

Project: BlogDemo [ 1.0 ]

administrato

Modeling

Data Masking

PII Audit

Generators

Orchestration

Self Service Flows

Self Service Catalog

Submitted Requests

My Reservations

My Clones

VTDM

Configuration

Submitted Requests

Generators

All Projects

ID	Name	Type	Status	Project Name	Submitted By	Scheduled Date	Start Date	End Date	
93	Publish_Blo...	PUBLISH	Completed	BlogDemo	Administrator	2019-03-22 15:42:50	2019-03-22 15:42:50	2019-03-22 1...	

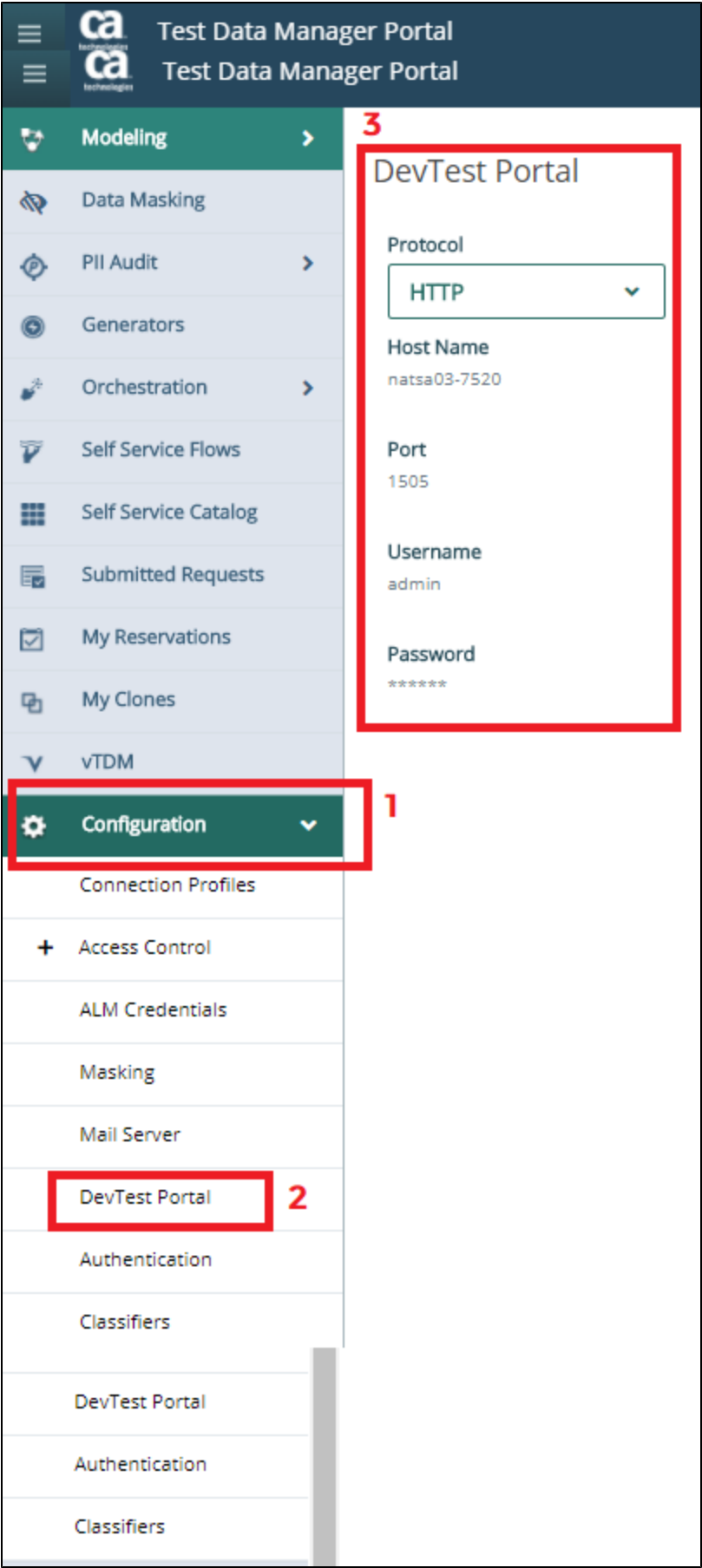
If you check the table, you would notice that 10 new records are inserted

SQLQuery31.sql - N...logDemo (sa (164)) - X											
SQLQuery30.sql - N...logDemo (sa (244))											
SQLQuery29.sql - N...logDemo (sa (243))											
SQLQuery28.sql - N...logDemo (sa (236))											
/***** Script for SelectTopNRows command from SMS *****/											
<pre> SELECT TOP (1000) [SHRED_ID] , [SHRED_GROUP_ID] , [SupplierNumber] , [CompanyName] , [Address1] , [Address2] , [City] , [State] , [Zip] , [ZipPlus4] , [Telephone] , [Description] , [IsSupplierParticipating] , [Response_SupplierData_SHRED_ID] FROM [BlogDemo].[BlogDemo1_827].[Response_SupplierData] </pre>											
100 %											
Results Messages											
	SHRED_ID	SHRED_GROUP_ID	SupplierNumber	CompanyName	Address1	Address2	City	State	Zip	ZipPlus4	Telephone
1	1958	NULL	0194080005	DOCS DRUGS LTD	1020 MAPLE AVE		LISLE	NULL	60532	IL	2329
2	1969	NULL	061A1-PT3-010	China State Construction Engineering Corp LTD	BO BAYAMON PARC J DEL VALLE 14		Burley	NULL	3732	ID	5945
3	1980	NULL	44323-SBO-310KT	Sainsbury'S Supermarkets Ltd LTD	URB MONACO III 646 ST PRINCIPE		Louisville	NULL	8373	GA	5643
4	1991	NULL	14711-PEO-000	United Distillers Vintners LTD	SANTA JUANITA GC10 CALLE 50		Lakeside-marblehead	NULL	5862	OH	4589
5	2002	NULL	43301-692-013	United Co-operatives LTD	H.C. 02 BOX 14237		Montpelier	NULL	4775	IN	3838
6	2013	NULL	35250-SB6-662	Kroger LTD	BOX 57		Cynthiana	NULL	5353	KY	5969
7	2024	NULL	46920-SM4-A03	Glen Dimplex LTD	URB. ALTURAS DE VEGA BAJA		Neville	NULL	8127	OH	4178
8	2035	NULL	33300-SV4-A01	Apple Inc. LTD	CALLE AZUCENA F-11 SUSUA BAJA		Haynesville	NULL	7186	LA	4477
9	2046	NULL	06112-689-010	United Utilities LTD	URB EL VALLE 100 CALLE MIRTOS		Columbus	NULL	2135	OH	8812
10	2057	NULL	16210-PH4-661	Waitrose LTD	QUINTAS DE FAJARDO C5 F29		Morenci	NULL	8134	AZ	6605
11	2068	NULL	45022-SR3-V01	REED International LTD	26 SERENIDAD STREET		Seney	NULL	5897	MI	6960

## **Export SYNTHETIC data to running Virtual Service in DevTest**

This is the last step of the integration use case. In order to export synthetic data from TDM to Devtest, we need to set up a connection from TDM to Devtest. For this usecase, this integration is PURELY ONE-WAY. ie, from TDM to DEVTEST

First, configure Devtest connection details in TDM.



Next, export the synthetic data to running Virtual Service. Make sure you choose the correct DB connection, schema and Virtual Service. Click Export

Modeling

Environments

Data Model

Find & Reserve

**Objects** 1

Variables

Data Masking

PII Audit

Generators

Orchestration

Self Service Flows

Self Service Catalog

Submitted Requests

My Reservations

My Clones

vTDM

Configuration

Objects > BlogDemo1

BlogDemo1

Type: WSDL

Schema Name: BlogDemo1\_827

Connection Profile: BlogDemoDBConnection

Derived Tables

Table Name
Request_anyElement_any
Request_anyElement_any_tdm_1
Request_anyElement_any_tdm_2
Request_Body
Request_Envelope_tdm_root
Request_GetSupplierByZipCode
Request_Header
Response_anyElement_any_tdm_3
Response_anyElement_any_tdm_4
Response_anyElement_any_tdm_5

« < 1 2 > »

**2** Export Data

Connection Profile \*  
BlogDemoDBConnection

**3** Schema Name  
BlogDemo1\_827

No of Files  
111

Document Group ID

R/R PAIR Link ID

Publish

☐ Publish Files

Virtual Service

**4** ☒ Update Virtual Service

**5** Virtual Service Environment  
VSE

**6** Virtual Service  
BlogDemo

Advanced Settings

EXPORT CANCEL

To track the status of submitted export job:

Modeling	Submitted Requests <span>Modeling</span>					
Data Masking	<input type="checkbox"/> All Projects					
PII Audit	ID	Name	Type	Status	Project Name	Submitted By
Generators	101	BlogDemo1_827	EXPORTDATA	Completed	BlogDemo	Administrator
Orchestration	100	BlogDemo1_827	EXPORTDATA	Failed	BlogDemo	Administrator
Self Service Flows	99	BlogDemo1_827	EXPORTDATA	Failed	BlogDemo	Administrator
Self Service Catalog	98	BlogDemo1_827	EXPORTDATA	Failed	BlogDemo	Administrator
Submitted Requests	97	BlogDemo1_827	EXPORTDATA	Failed	BlogDemo	Administrator
My Reservations	> 94	BlogDemo1_827	GROUPJOB	Completed	BlogDemo	Administrator
My Clones	> 90	BlogDemo1_827	GROUPJOB	Failed	BlogDemo	Administrator
VTDM	89	BlogDemo1_827	IMPORTDATA	Completed	BlogDemo	Administrator
Configuration	88	BlogDemo1_827	DERIVETABLES	Completed	BlogDemo	Administrator

## How to Test if the Virtual Service has been Augmented with Synthetic data from TDM ?

You cannot see the augmented transactions in the Virtual Service from Portal. However you could test the **RUNNING** virtual service using a simple test case in AppTest using Web Service -> Web Service Execution STEP. Try passing different zip code that you find in the table Response\_SupplierData and you should get **VALID SYNTHETIC RESPONSE**.

Web Service Execution (XML) - Web Service

Connection: Transport SSL UDDI WS-I Advanced

WSDL URL: file:/C:/Users/natsa03/Desktop/CA%20SV/SE\_Issues/WIP/DExxxxx%20-%20Humana/rr%20pairs/New/medicare.wsdl

Service: MediCareSupplier Port: MediCareSupplierSoap

Operation: GetSupplierByZipCode On Error: Abort the Test

Endpoint: http://natsa03-7520:47412/medicareSupplier.asmx

### REQUEST

Visual XML Raw XML POST SOAP Headers Attachments Addressing Security

```
<?xml version="1.0" encoding="utf-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xs="http://www.w3.org/2001/XMLSchema" >
  <soapenv:Body>
    <GetSupplierByZipCode xmlns="http://www.webservices.net/" >
      <!--zip is optional-->
      <zip>2303</zip>
    </GetSupplierByZipCode>
  </soapenv:Body>
</soapenv:Envelope>
```

### RESPONSE

Connection: Transport SSL UDDI WS-I Advanced

WSDL URL: file:/C:/Users/natsa03/Desktop/CA%20SV/SE\_Issues/WIP/DExxxxx%20-%20Humana/rr%20pairs/New/medicare.wsdl

Service: MediCareSupplier Port: MediCareSupplierSoap

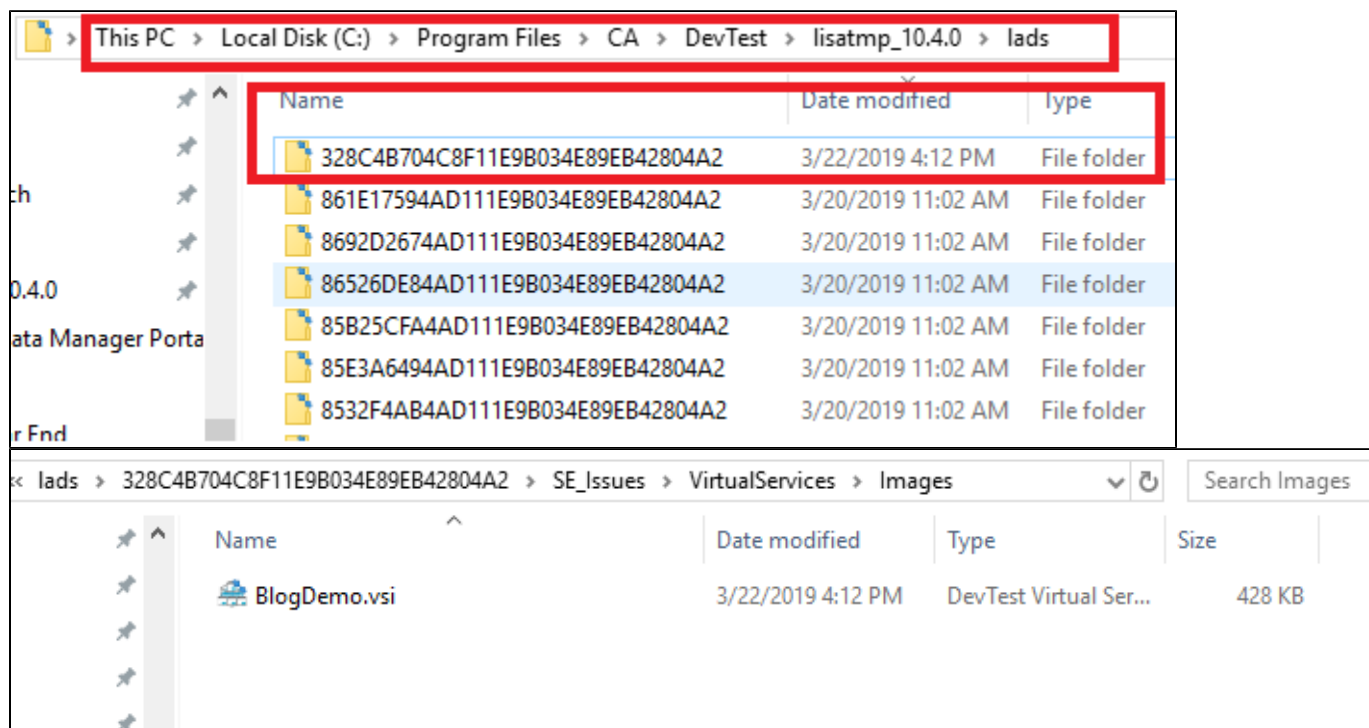
Operation: GetSupplierByZipCode On Error: Abort the Test

Endpoint: http://natsa03-7520:47412/medicareSupplier.asmx

```
<?xml version="1.0" encoding="UTF-8"?>
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" >
  <SOAP-ENV:Body>
    <tdsns0:GetSupplierByZipCodeResponse>
      <tdsns0:GetSupplierByZipCodeResult>true</tdsns0:GetSupplierByZipCodeResult>
      <tdsns0:SupplierDataLists>
        <tdsns0:SupplierDatas>
          <tdsns0:SupplierData>
            <tdsns0:SupplierNumber>8-94312-940-0</tdsns0:SupplierNumber>
            <tdsns0:CompanyName>Traveler Investments LTD</tdsns0:CompanyName>
            <tdsns0:Address1>HC 01 BOX 3152 BO FURNIAS</tdsns0:Address1>
            <tdsns0:Address2 />
            <tdsns0:City>Newport</tdsns0:City>
            <tdsns0:Zip>2303</tdsns0:Zip>
          </tdsns0:SupplierData>
        </tdsns0:SupplierDatas>
      </tdsns0:SupplierDataLists>
    </tdsns0:GetSupplierByZipCodeResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

## Where does DEVTEST store the exported SYNTHETIC DATA from TDM ?

Devtest stores this data in another .VSI file that is present in a different location. Just see the screenshot below



This is file big in size, much bigger than the original file.

<< Program Files > CA > DevTest > Projects > SE_Issues > VirtualServices > Images					Search Images
Name	Date modified	Type	Size		
BlogDemo.vsi	3/22/2019 12:42 PM	DevTest Virtual Ser...	36 KB		
Humana2.vsi	3/21/2019 2:45 PM	DevTest Virtual Ser...	36 KB		
HUMANA1.vsi	3/21/2019 12:47 PM	DevTest Virtual Ser...	7 KB		
t1.vsi	3/11/2019 3:03 PM	DevTest Virtual Ser...	387 KB		

After exporting 100 Synthetic records, I generated another 1000 and exported. After export process, It is noticed that the lads folder has been updated and the VSI file size also increased. You could notice that the folder name has been changed. Most likely, the old folder has been dropped and a new one was created.

This PC > Local Disk (C:) > Program Files > CA > DevTest > lisatmp_10.4.0 > lads				
	Name	Date modified	Type	
	B777B9254C9711E9B034E89EB42804A2	3/22/2019 5:13 PM	File folder	
	861E17594AD111E9B034E89EB42804A2	3/20/2019 11:02 AM	File folder	
	8692D2674AD111E9B034E89EB42804A2	3/20/2019 11:02 AM	File folder	
	86526DE84AD111E9B034E89EB42804A2	3/20/2019 11:02 AM	File folder	
anager Porta	85B25CFA4AD111E9B034E89EB42804A2	3/20/2019 11:02 AM	File folder	
	85E3A6494AD111E9B034E89EB42804A2	3/20/2019 11:02 AM	File folder	
<< lads > B777B9254C9711E9B034E89EB42804A2 > SE_Issues > VirtualServices > Images				
	Name	Date modified	Type	Size
	BlogDemo.vsi	3/22/2019 5:13 PM	DevTest Virtual Ser...	3,713 KB
Manager Porta				