

SV Deep Dive Training

TDM TRAINING NOTES

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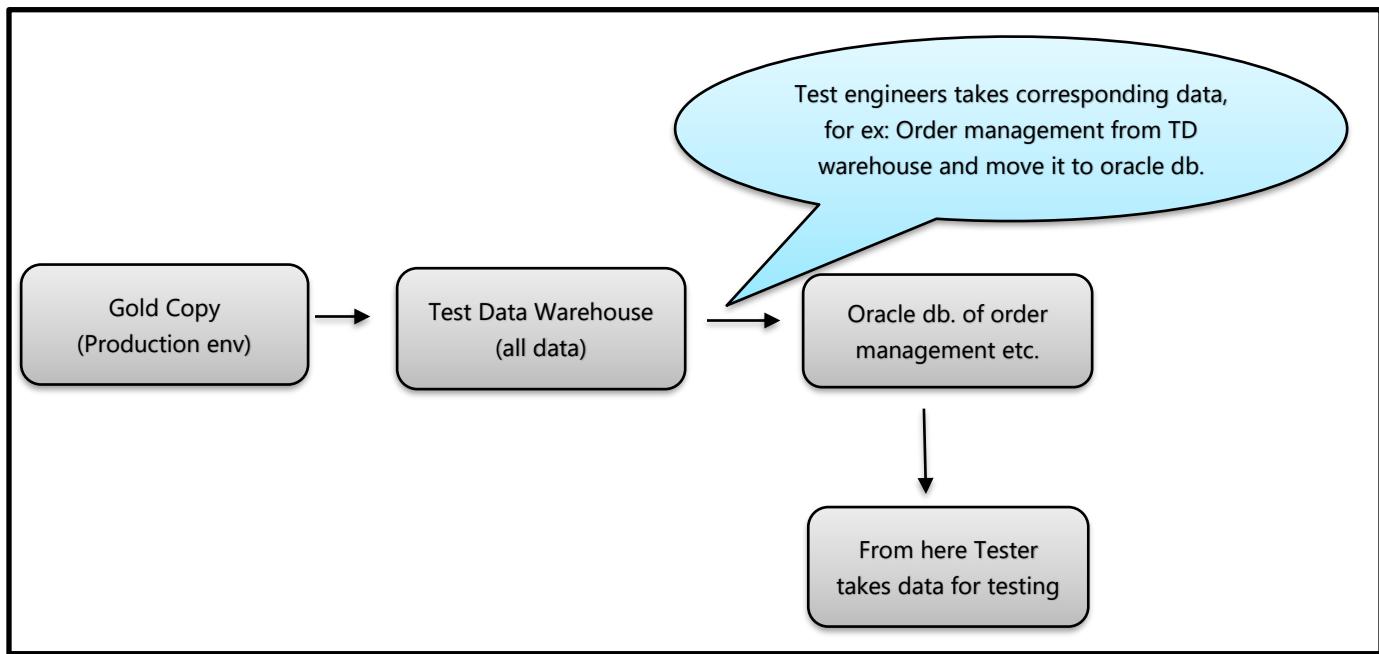
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TDM Introduction

CA TDM: CA Test Data Manager uniquely combines elements of data sub setting, masking and synthetic, on-demand data generation to enable testing teams to meet the agile needs of the organization

- ✓ TDM is used to Build test data warehouse from production environment
- ✓ It takes data from database, creates repository, masks, profiles, provide data from 'Data management' data base
- ✓ From Production it takes 'Gold Copy' data and creates own 'DATA MART' and gives tester the required data
- ✓ This Data Mart is done by test engineers, who takes data for tester using TDM and Tester in team uses the data provided by test engineers

Sample Workflow



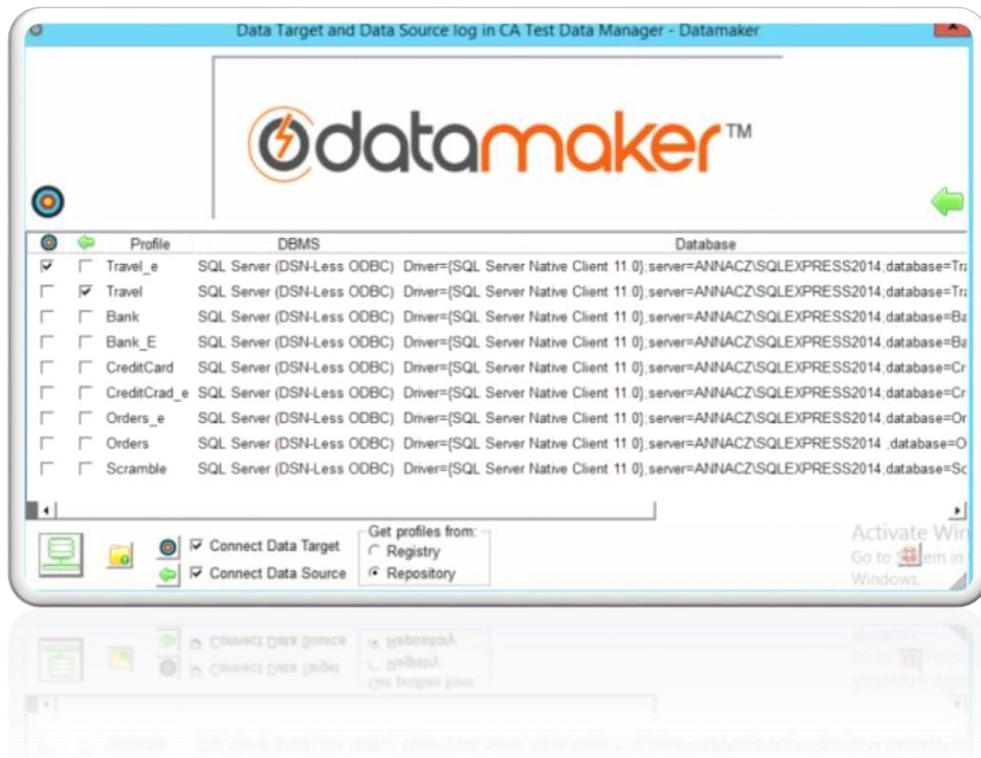
1. Data Profiling

It helps to understand the nature of the data and overall data model. It helps to take data from legacy db. Data Maker is the app used.

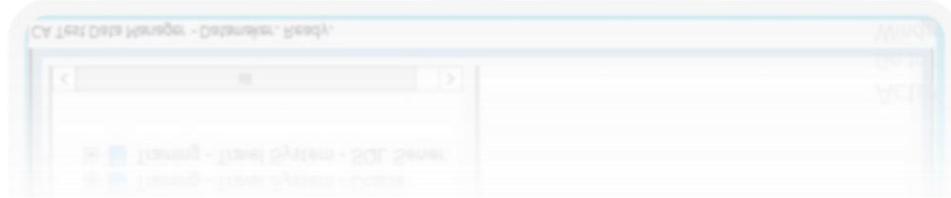
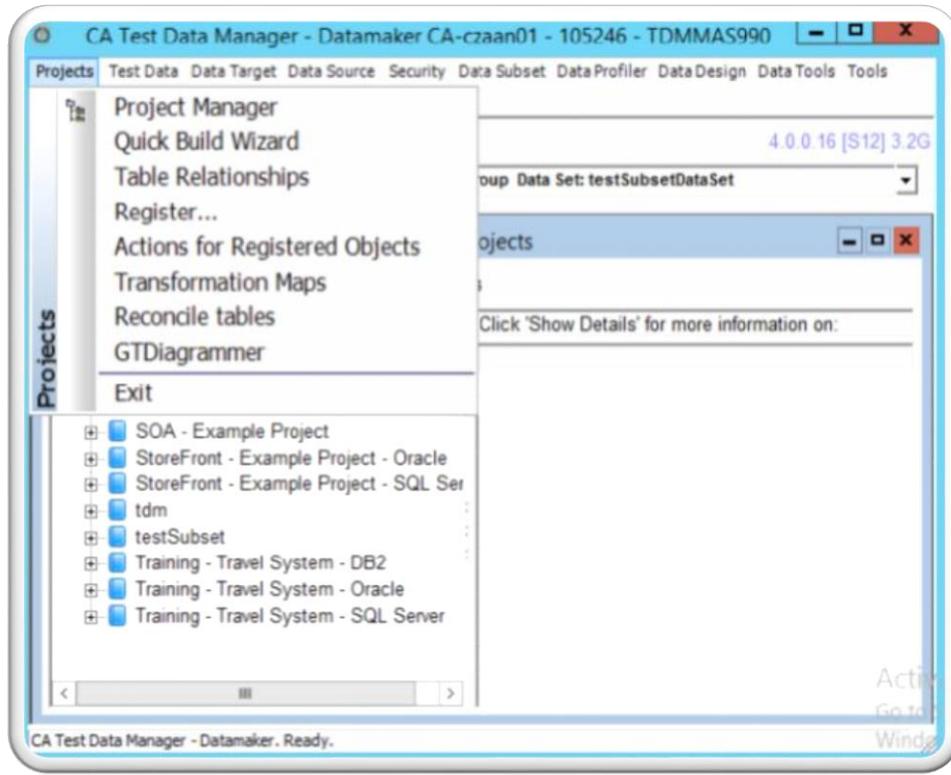
Login Screen



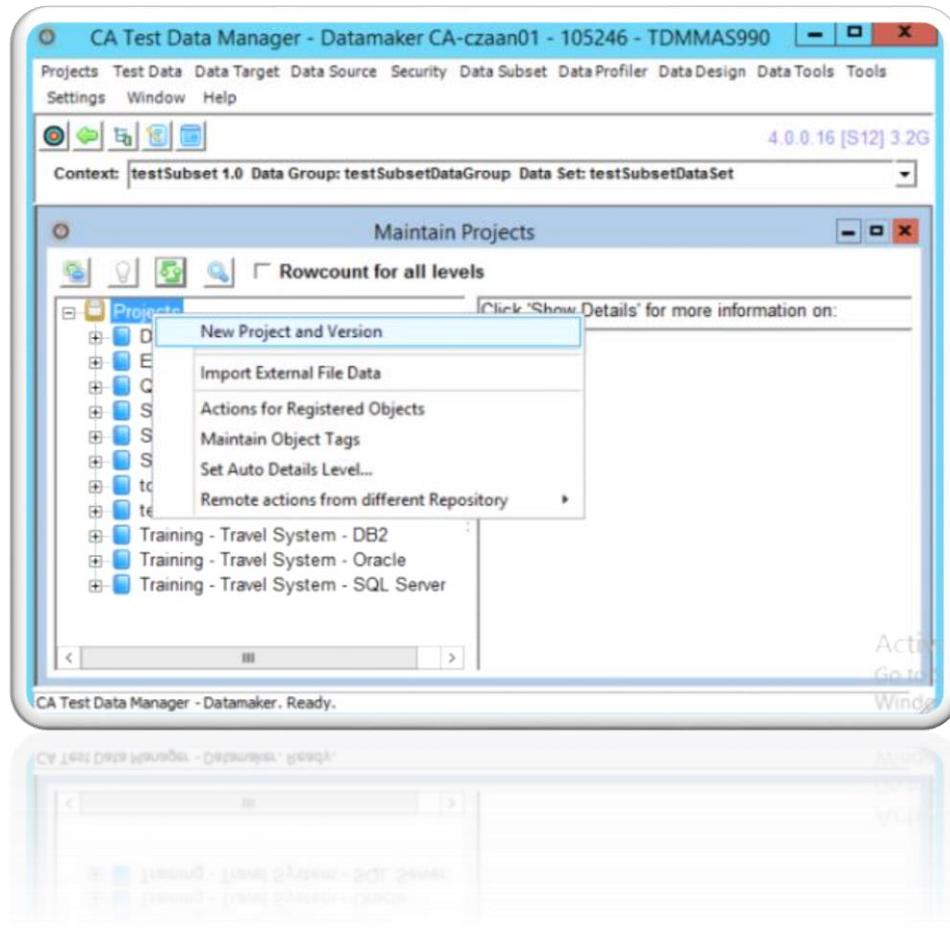
Create or Select the Source and Target DB and Select Green icon on the bottom left corner 'Connect to databases and startup' icon



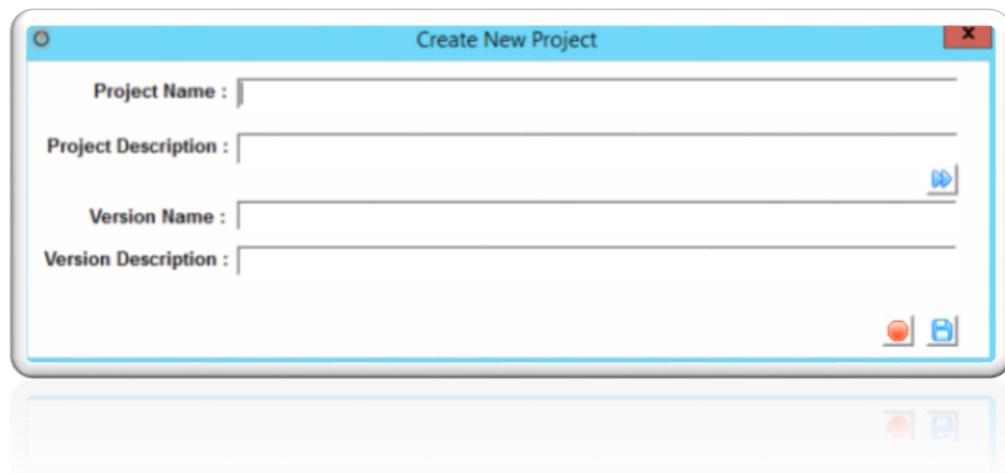
Select Projects from menu & select Project Manager option



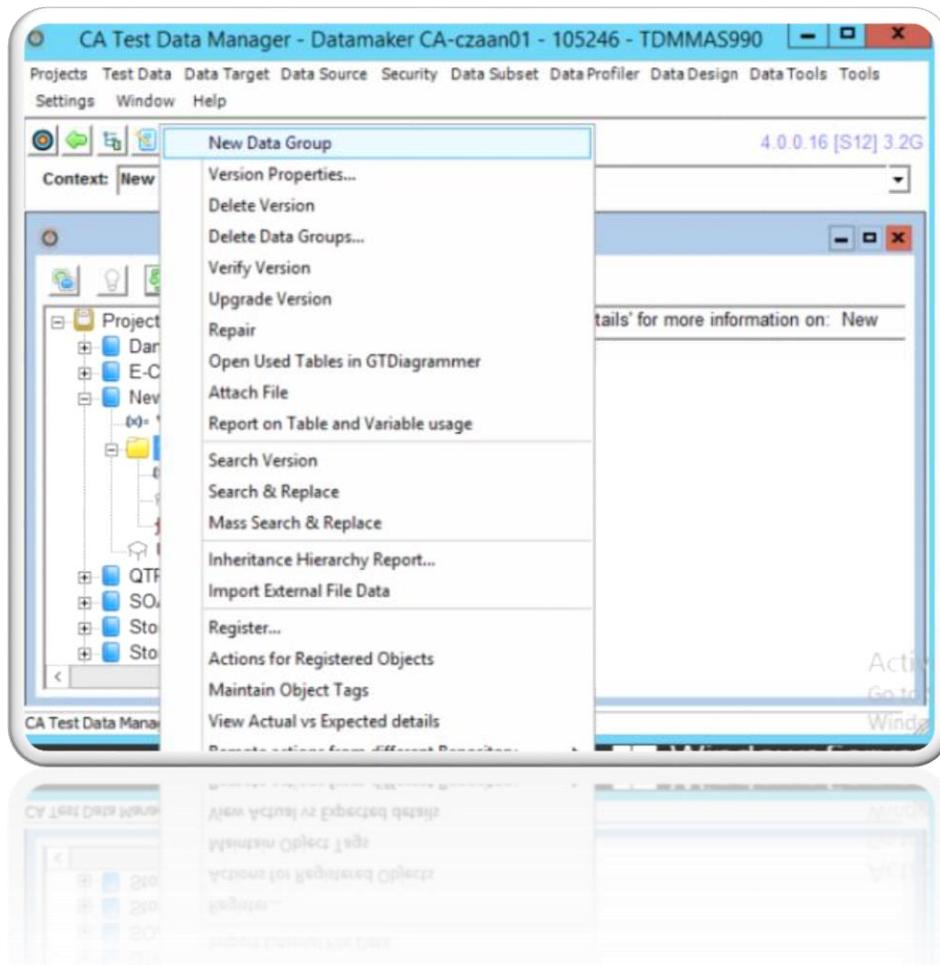
Right click on project and select New Project and Version



Enter below required details and click Save button.

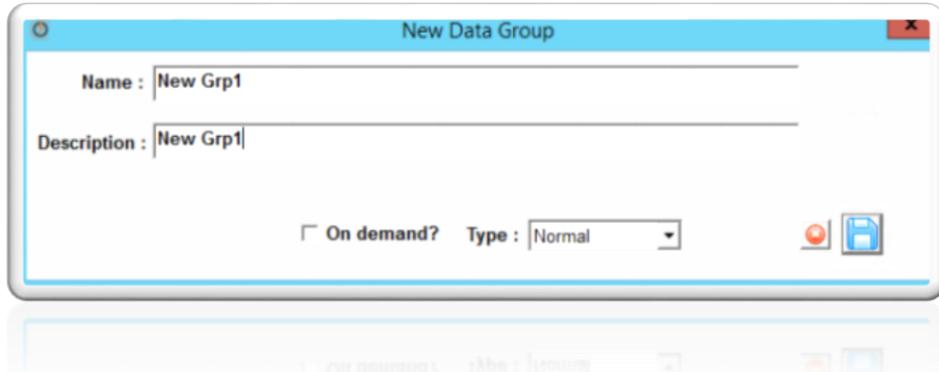


Select the newly created version number under newly created Project in above step, and select New Data Group option

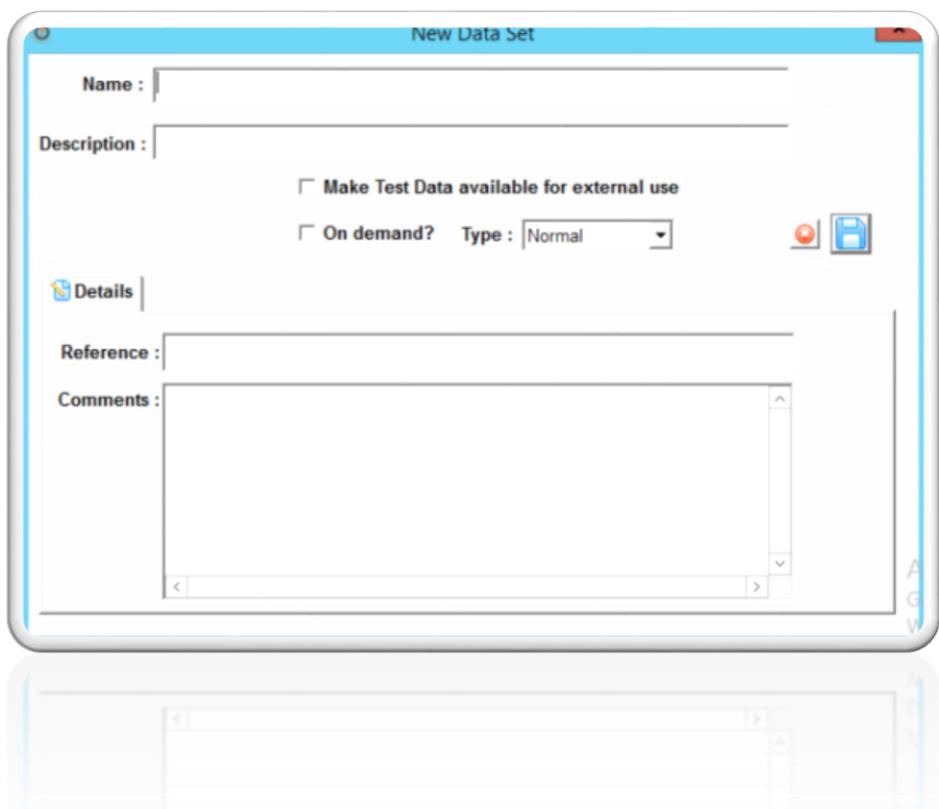


Similarly create create new datagroup, new dataset and new data pool subsequently

Create New Data Group screeen



Create New Data Set screeen



Create New Data Pool screen

New Data Pool

Name :

Description :

Make Test Data available for external use

On demand? Type :

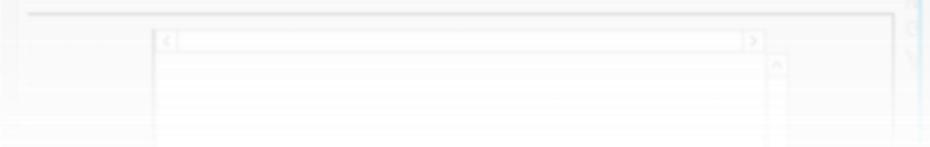
 

 Details

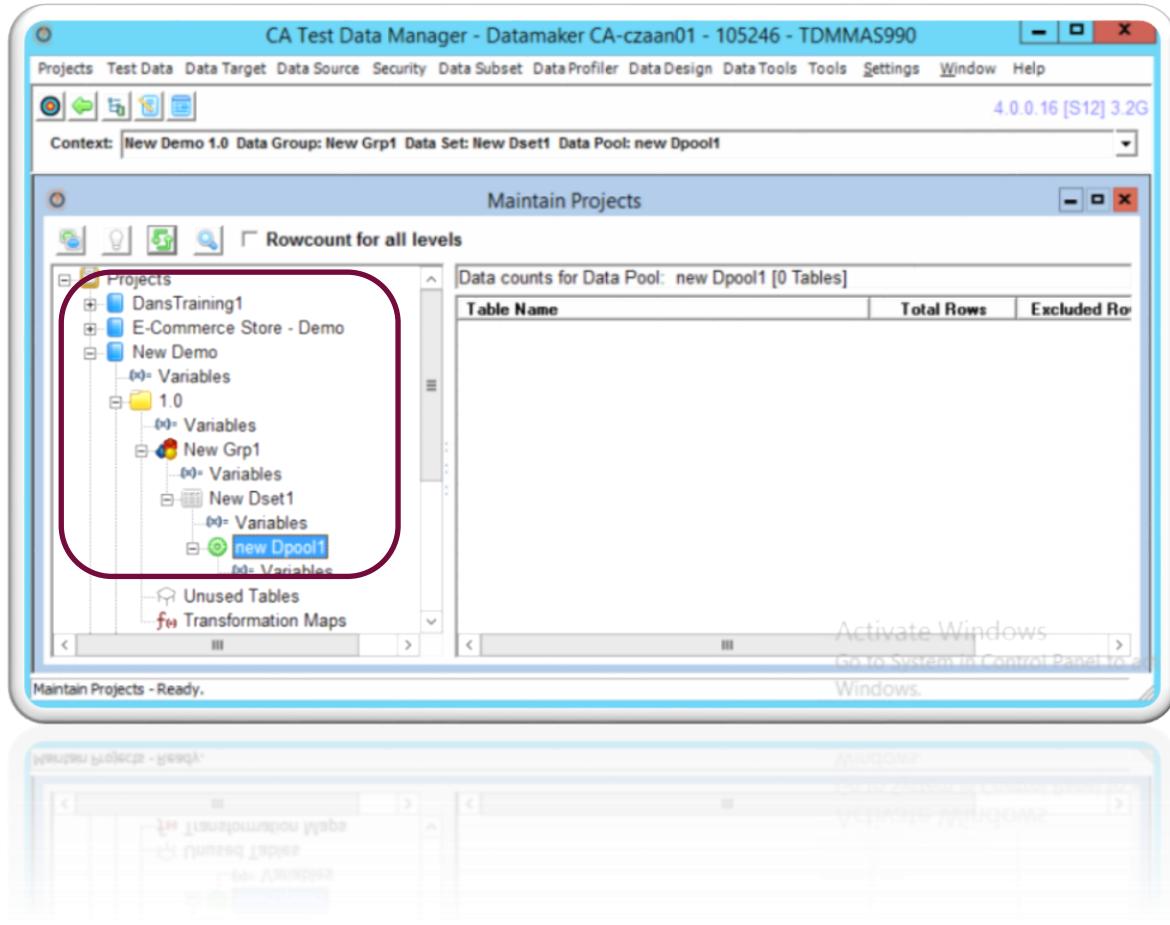
Reference :

Comments :

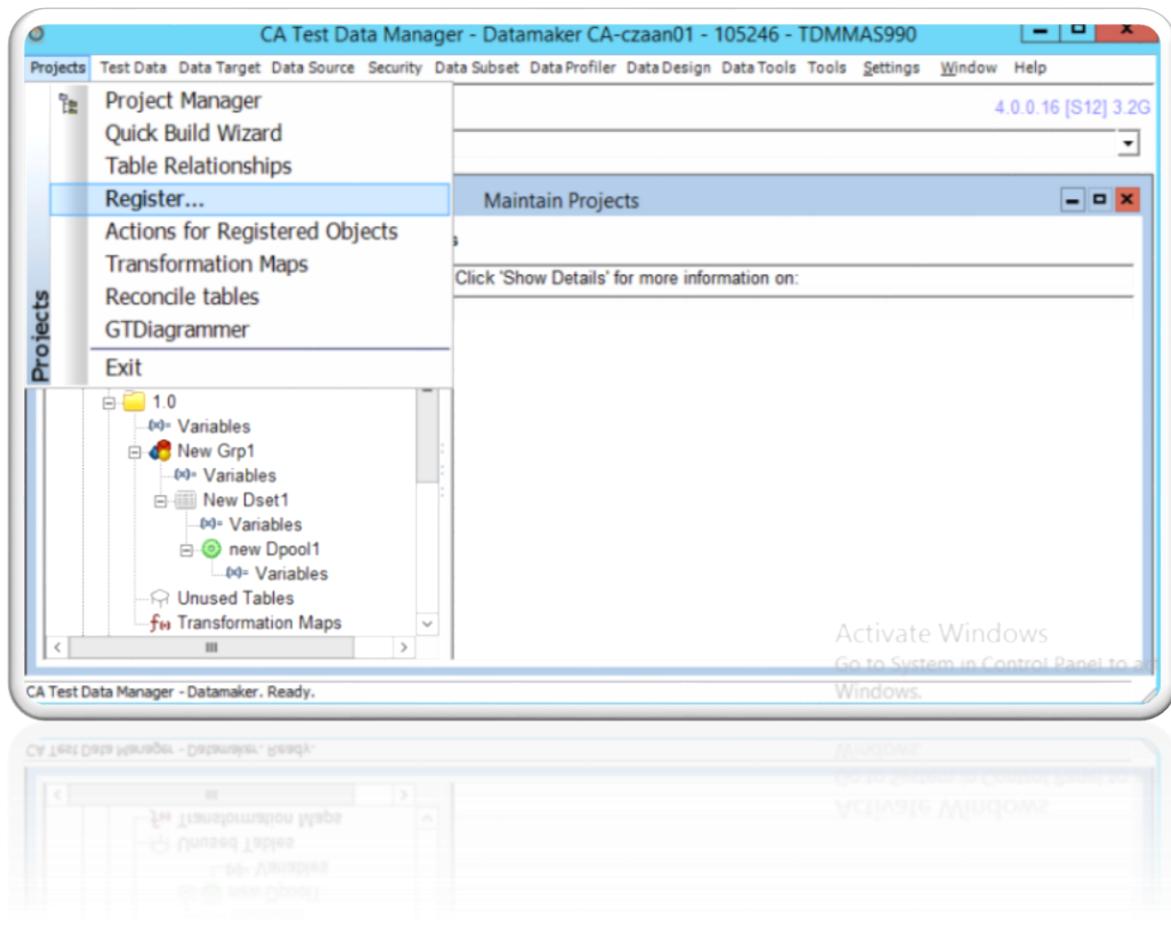
A
G
W



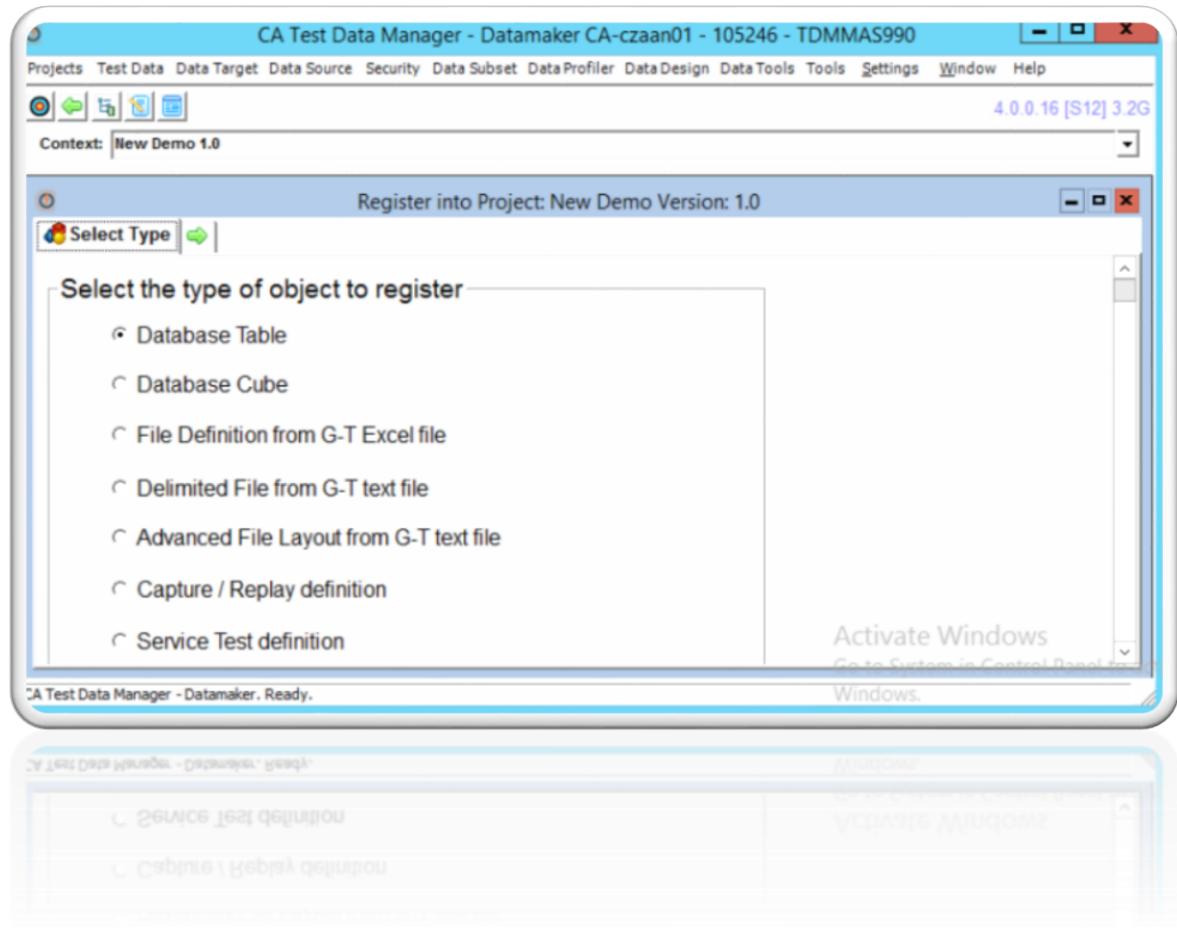
New Project > New Data group > New Dataset > New Data pool



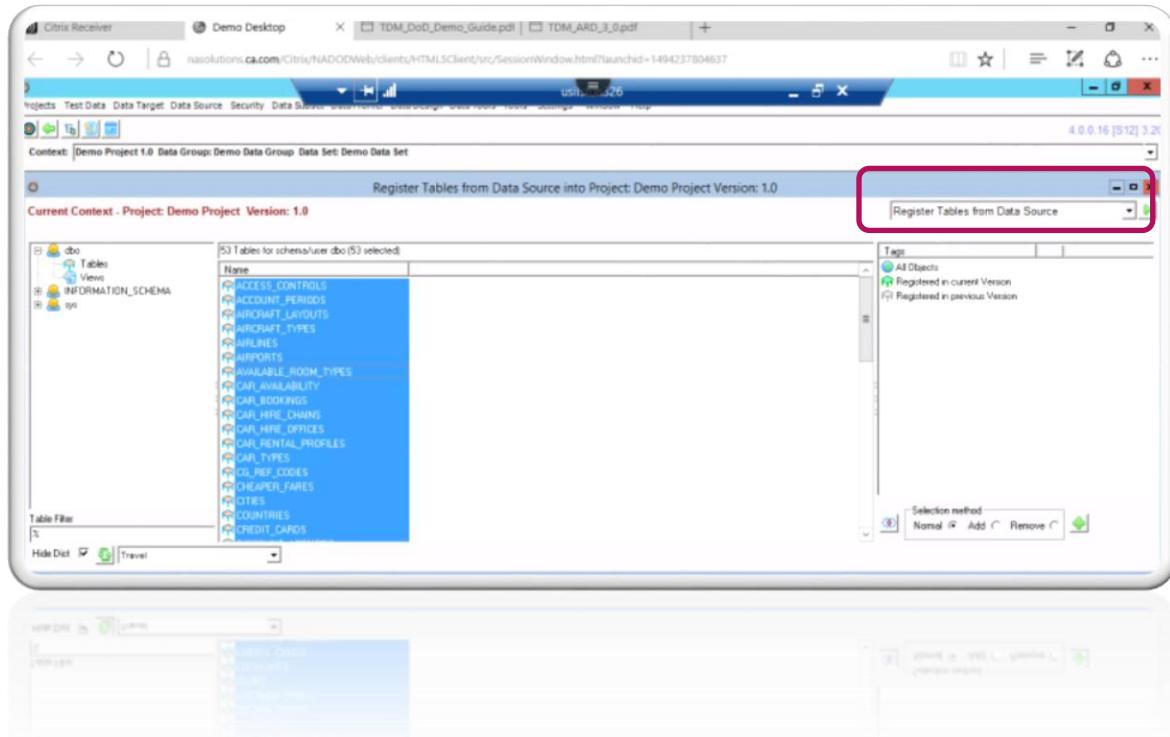
Click on version of the newly created project and select Register from drop down list to register tables from the DB



Select the Green Button



Select Register Tables from Data Source from drop down list & Select all the tables and run (Green Button)



Registering tables

Screenshot of the Citrix Receiver interface showing the "Reconcile Objects to Register" window.

The window title is "Reconcile Objects to Register". It shows a list of objects to register, comparing them against a schema named "dbo".

Register As	Actual Name	Comments
HOTEL_BOOKINGS	HOTEL_BOOKINGS	Unchanged Table
HOTEL_CHAINS	HOTEL_CHAINS	Unchanged Table
HOTEL_FACILITIES	HOTEL_FACILITIES	Unchanged Table
HOTEL_FINANCES	HOTEL_FINANCES	Unchanged Table
HOTELS	HOTELS	Unchanged Table
HID_BUSINESS_RELATIONS	HID_BUSINESS_RELATIONS	Unchanged Table
HID_DEPARTMENTS	HID_DEPARTMENTS	Unchanged Table
HID_EMPLOYEES	HID_EMPLOYEES	Unchanged Table
HID_ORDER_LINES	HID_ORDER_LINES	Unchanged Table
HID_ORDERS	HID_ORDERS	Unchanged Table
HID_PRODUCTS	HID_PRODUCTS	Unchanged Table
HID_PROJECT_ASSIGNMENTS	HID_PROJECT_ASSIGNMENTS	Unchanged Table
HID_PROJECTS	HID_PROJECTS	Unchanged Table
ITINERARIES	ITINERARIES	Unchanged Table
MSG_FLIGHT_CONFIRM	MSG_FLIGHT_CONFIRM	Unchanged Table
MSG_FLIGHT_REQUEST	MSG_FLIGHT_REQUEST	Unchanged Table
PEOPLE	PEOPLE	Unchanged Table
QMS_HDE_PARAMS	QMS_HDE_PARAMS	Unchanged Table
QMS_MESSAGE_PROPERTIES	QMS_MESSAGE_PROPERTIES	Unchanged Table
QMS_MESSAGE_TEXT	QMS_MESSAGE_TEXT	Unchanged Table
QMS_MODULES	QMS_MODULES	Unchanged Table
QMS_STNG REP_PARAMS	QMS_STNG REP_PARAMS	Unchanged Table
QMS_USER_OPTIONS	QMS_USER_OPTIONS	Unchanged Table
ROOM_AVAILABILITY	ROOM_AVAILABILITY	Unchanged Table
TEMP_BOOK	TEMP_BOOK	Unchanged Table
TEST_BOOKING	TEST_BOOKING	Unchanged Table
UNL_NETWORK	UNL_NETWORK	Unchanged Table

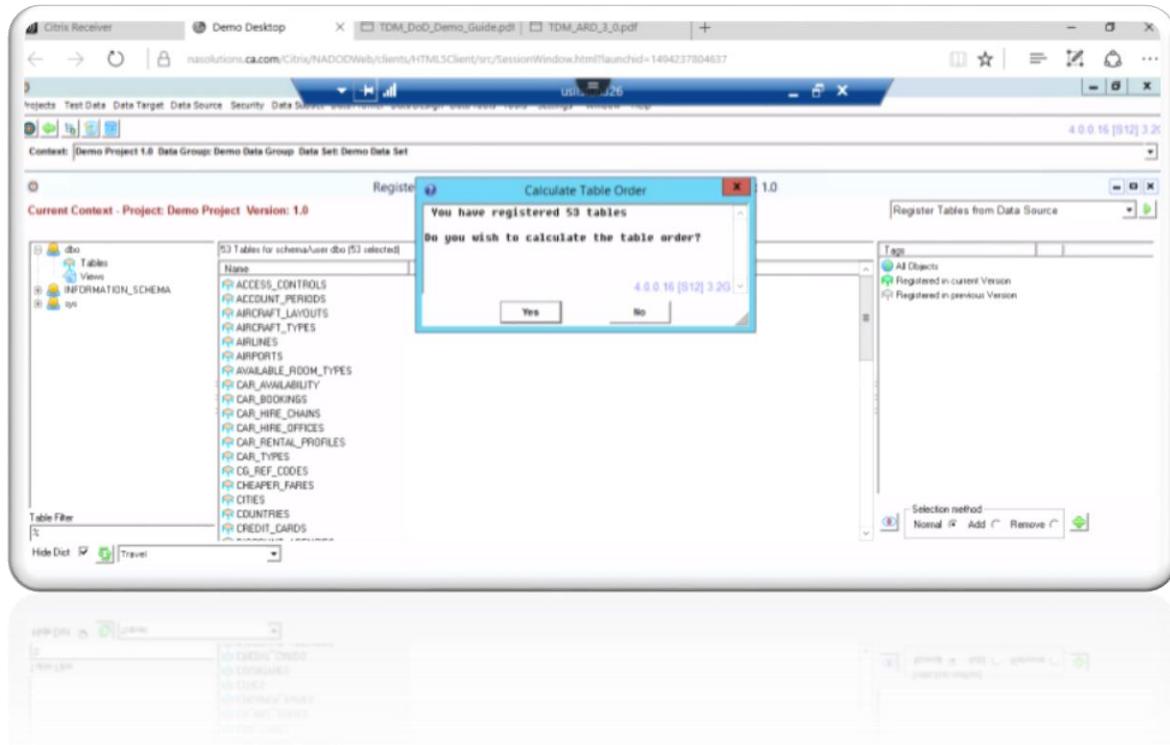
On the right side of the window, there is a "Source" pane showing a list of objects:

- Source
- Tables
- Views
- Information_Schemas
- sys

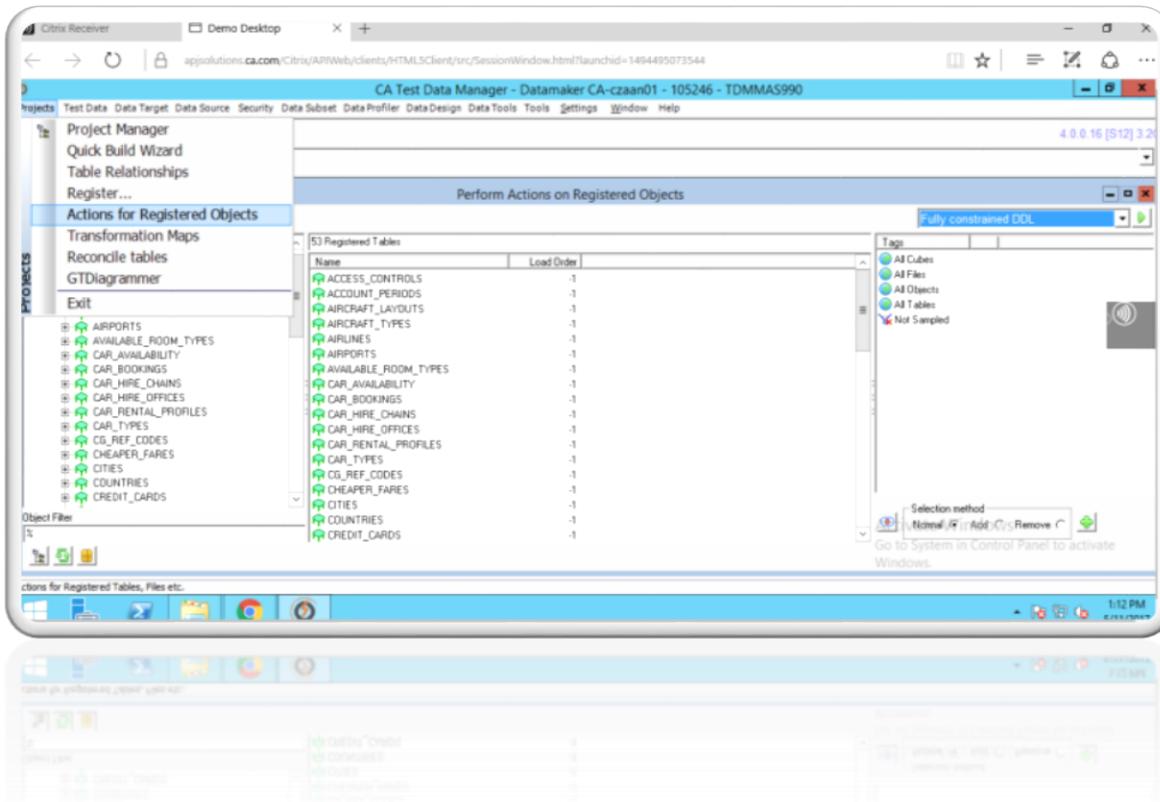
At the bottom right of the window, there is a message: "Activate Windows. Go to System in Control Panel to activate Windows." and a "Remove C" button.



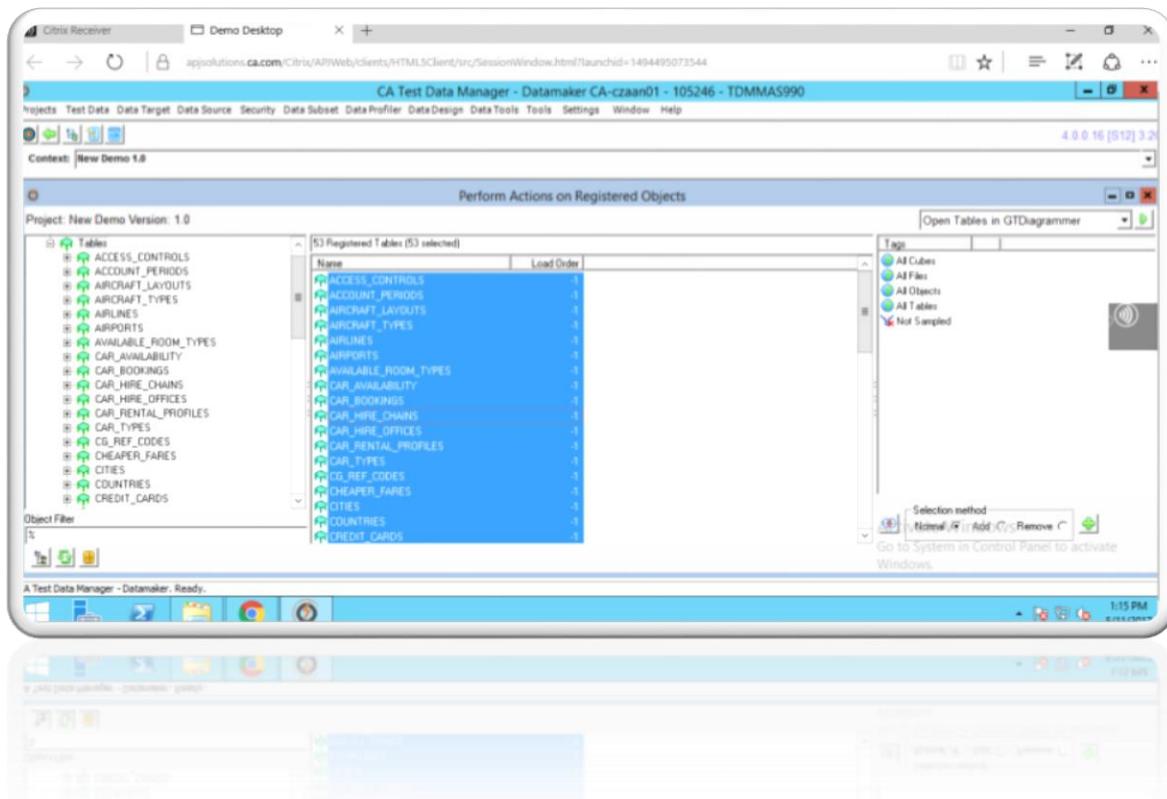
Tables are successfully registered



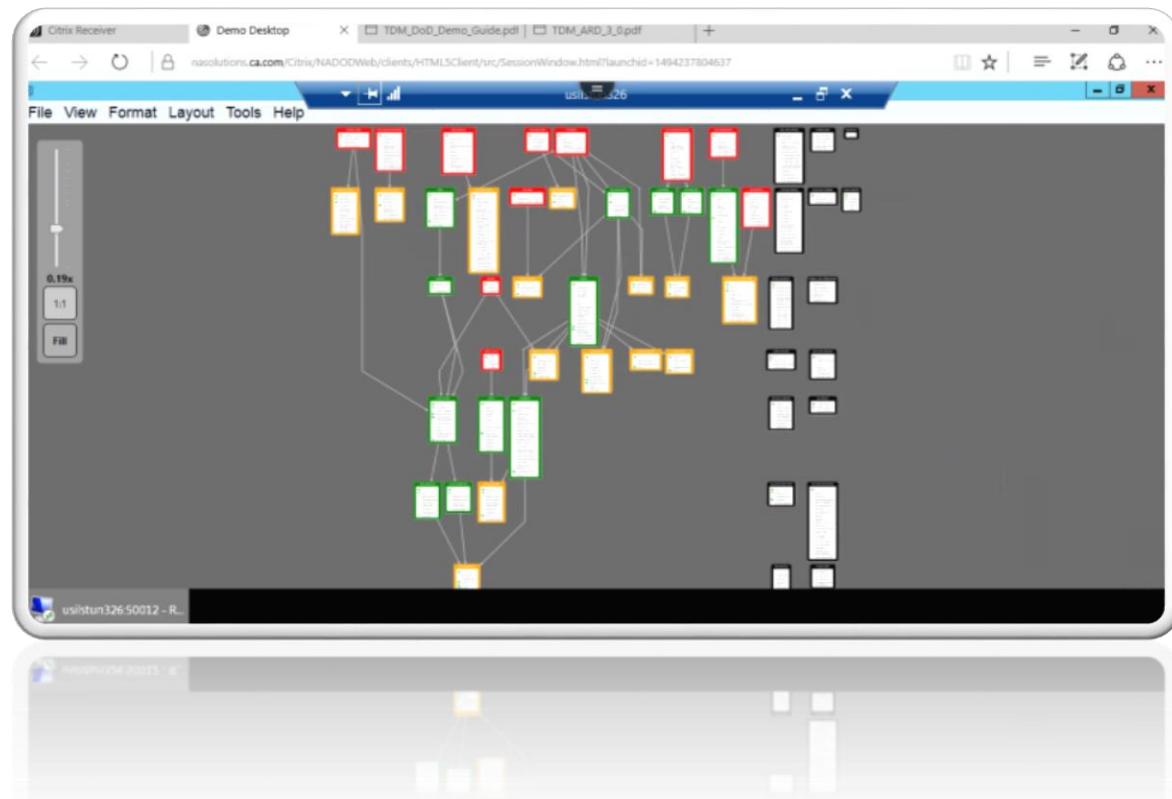
Select Projects > Actions for Registered Objects



Select all the tables and select **Open Tables in GTDiagrammer** from drop down list and select Run



GTDiagrammer window, Save the file if required



Data Profiling: Examining the content of data

Go to Data profile from the menu and then select Sample Table Data option

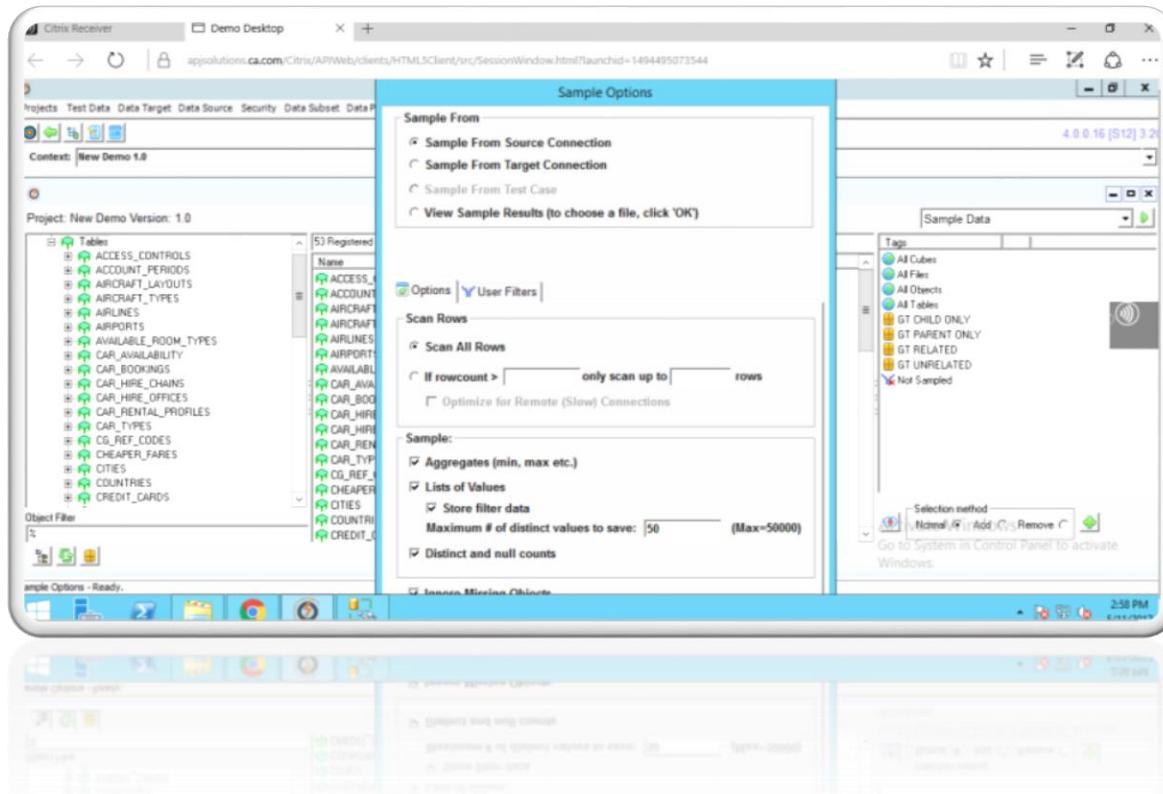
The screenshot shows the CA Test Data Manager interface. The title bar reads "CA Test Data Manager - Dataserver CA-czaan01 - 105246 - TDMMAS990". The menu bar includes "DataProfiler", "DataDesign", "DataTools", "Tools", "Settings", "Window", and "Help". The "DataProfiler" menu is currently active. The main window has several tabs: "Sample Table Data" (which is selected and highlighted in blue), "Create Seed Data from Cube", "Create Cube View", "Repository Coverage Metrics", and "Repository Find Duplicates". On the left, there's a sidebar with "Context: New Demo 1.0" and "Project: New Demo Version: 1.0". Below that is a tree view under "Tables" containing various database objects like ACCESS_CONTROLS, ACCOUNT_PERIODS, AIRCRAFT_LAYOUTS, etc. A central pane displays a table titled "Registered Tables [1 selected]" with columns "Name" and "Load Order". The table lists 44 entries, with "CAR_BOOKINGS" currently selected. To the right, there's a "Tags" section with options like "All Cubes", "All Files", "All Objects", "All Tables", "GT CHILD ONLY", "GT PARENT ONLY", "GT RELATED", "GT UNRELATED", and "Not Sampled". At the bottom, there's a "Selection method" section with "Normal" checked, and a note "Go to System in Control Panel to activate Windows." The status bar at the bottom right shows "2:54 PM".

Select all tables and select **Sample Data** from the drop down and run.

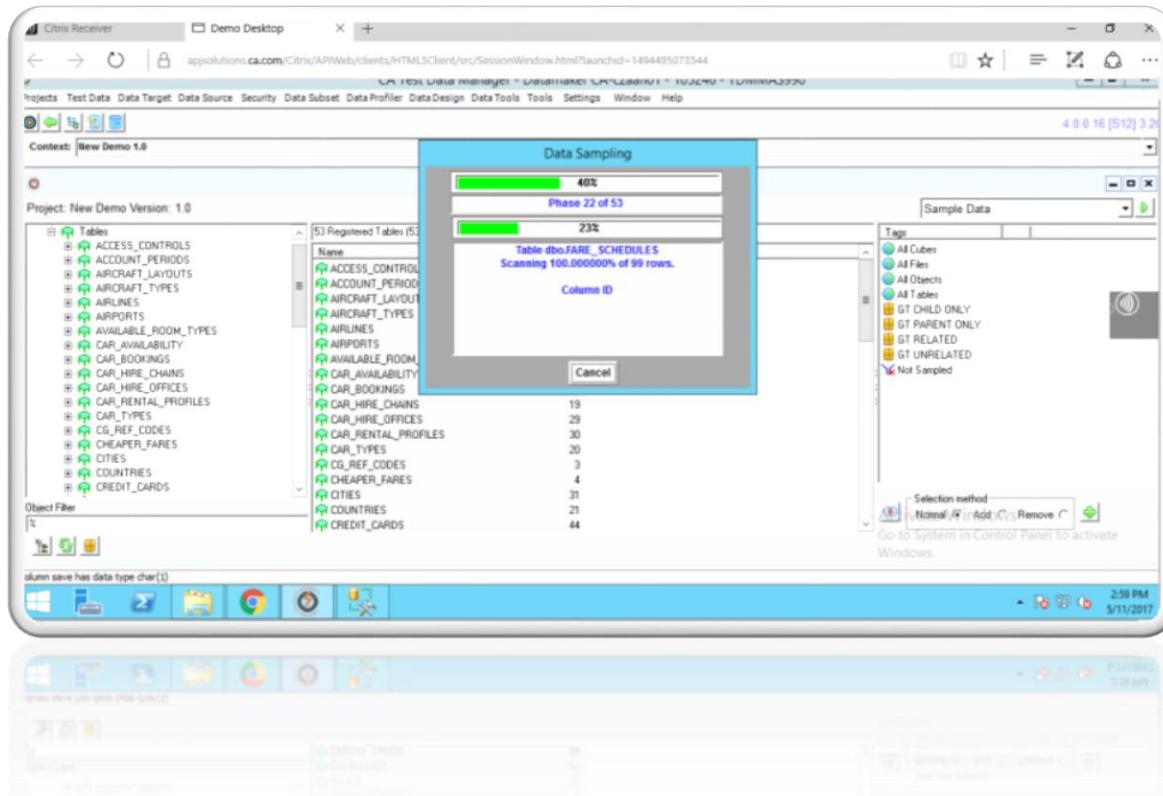
The screenshot shows the CA Test Data Manager interface. The main window title is "CA Test Data Manager - Datalayer CA-czaan01 - 105246 - TDMMAS994". The menu bar includes Projects, Test Data, Data Target, Data Source, Security, Data Subset, Data Profiler, Data Design, Data Tools, Tools, Settings, Window, and Help. A toolbar with various icons is visible above the main content area. The left pane displays a tree view under "Tables" with nodes like ACCESS_CONTROLS, ACCOUNT_PERIODS, AIRCRAFT_LAYOUTS, AIRCRAFT_TYPES, AIRLINES, AIRPORTS, AVAILABLE_ROOM_TYPES, CAR_AVAILABILITY, CAR_BOOKINGS, CAR_HIRE_CHAINS, CAR_HIRE_OFFICES, CAR_RENTAL_PROFILES, CAR_TYPES, CG_REF_CODES, CHEAPER_FARES, CITIES, COUNTRIES, and CREDIT_CARDS. An "Object Filter" dropdown is present. The center pane shows a table titled "53 Registered Tables (53 selected)" with columns "Name" and "Load Order". The table lists the same 53 tables from the tree view, ordered by load sequence. The right pane contains a "Tags" section with options: All Cubes (selected), All Files, All Objects, All Tables, GT CHILD ONLY, GT PARENT ONLY, GT RELATED, GT UNRELATED, and Not Sampled. Below this is a "Selection method" section with "Normal" selected. At the bottom right of the main window, there is a note: "Go to System in Control Panel to activate Windows." The status bar at the bottom right shows the time as 2:35 PM.

Name	Load Order
ACCESS_CONTROLS	40
ACCOUNT_PERIODS	1
AIRCRAFT_LAYOUTS	26
AIRCRAFT_TYPES	17
AIRLINES	18
AIRPORTS	41
AVAILABLE_ROOM_TYPES	2
CAR_AVAILABILITY	42
CAR_BOOKINGS	43
CAR_HIRE_CHAINS	19
CAR_HIRE_OFFICES	20
CAR_RENTAL_PROFILES	30
CAR_TYPES	30
CG_REF_CODES	3
CHEAPER_FARES	4
CITIES	35
COUNTRIES	25
CREDIT_CARDS	44

Click on Build and Save button at the bottom



Data Sampling is in process

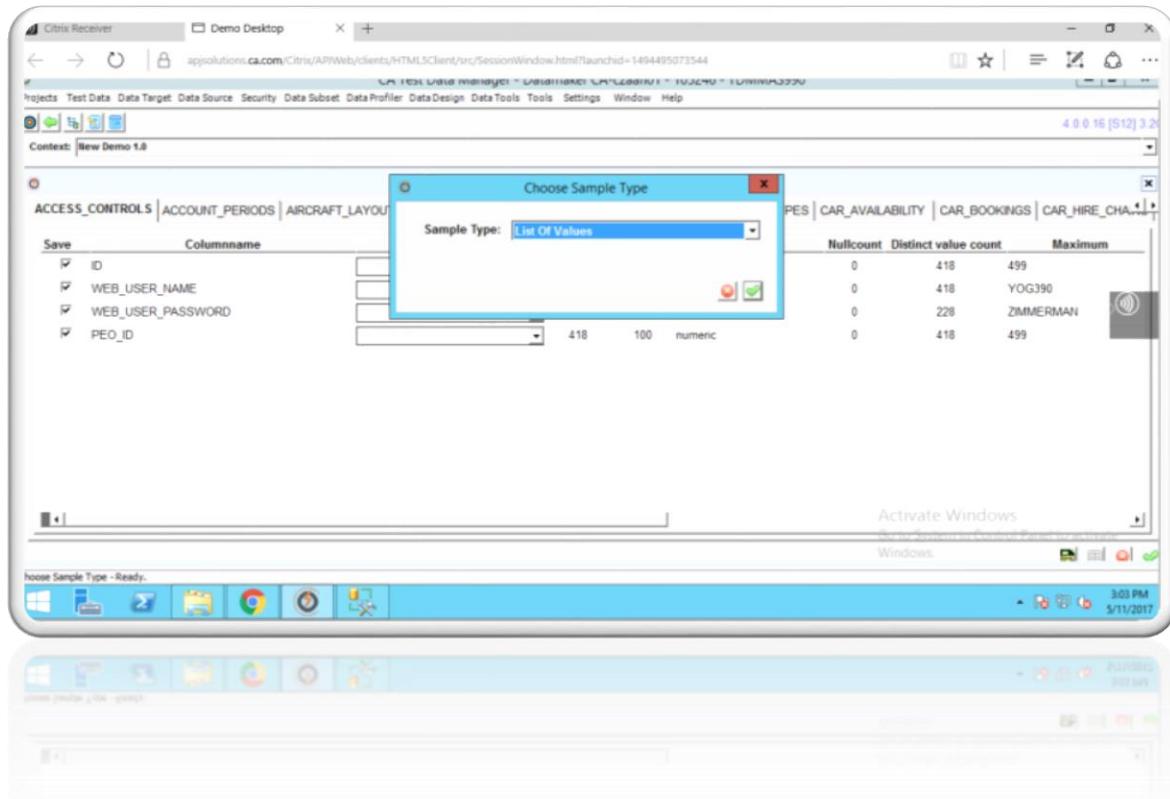


Select all the Column Names by clicking on the Save column name and click Save button in the corner of the page

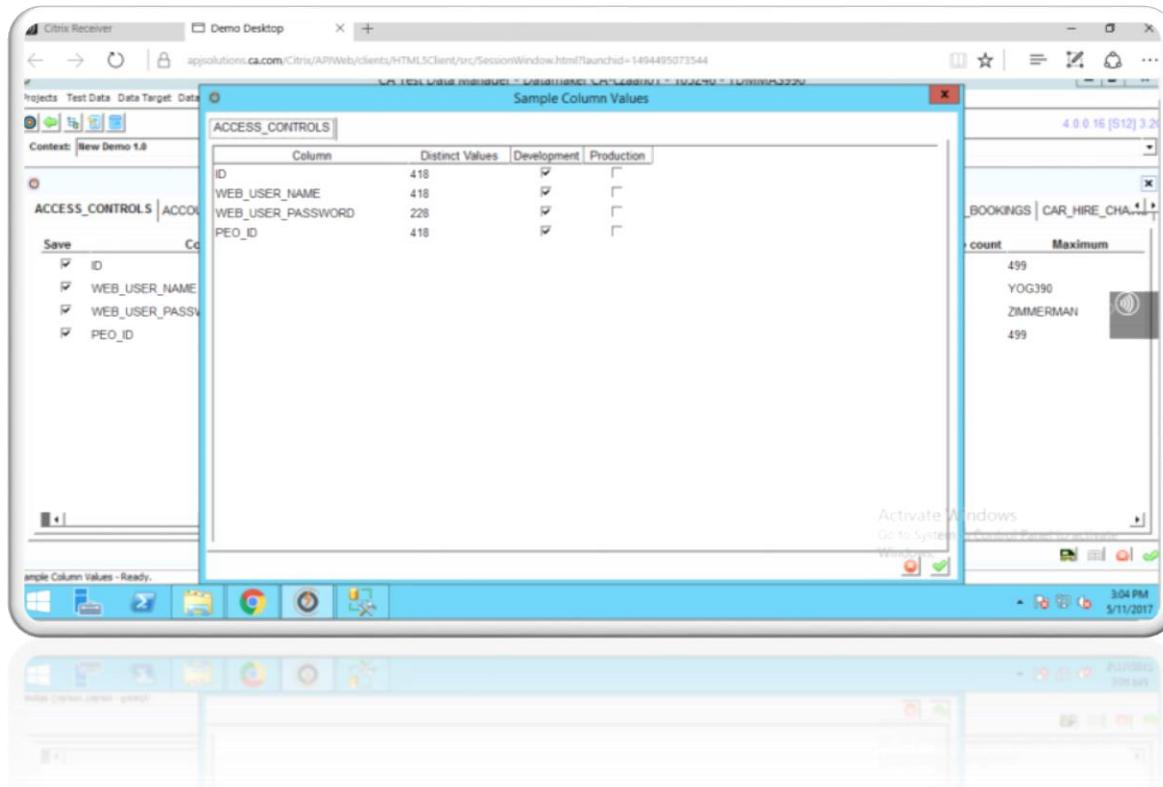
The screenshot shows a Citrix Receiver interface with a 'Data Sample' window open. The window title is 'Data Sample - Used registered table owner schema.' It displays a table of column statistics for four columns: ID, WEB_USER_NAME, WEB_USER_PASSWORD, and PEO_ID. The table includes columns for Save, Columnname, Values, Rowcount, PctScan, Datatype, Nullcount, Distinct value count, and Maximum. All four columns have their 'Save' checkboxes checked. The data shows 418 rows for each column, with various datatypes like numeric and varchar.

Save	Columnname	Values	Rowcount	PctScan	Datatype	Nullcount	Distinct value count	Maximum
<input checked="" type="checkbox"/>	ID		418	100	numeric	0	418	499
<input checked="" type="checkbox"/>	WEB_USER_NAME		418	100	varchar	0	418	YOG390
<input checked="" type="checkbox"/>	WEB_USER_PASSWORD		418	100	varchar	0	228	ZIMMERMAN
<input checked="" type="checkbox"/>	PEO_ID		418	100	numeric	0	418	499

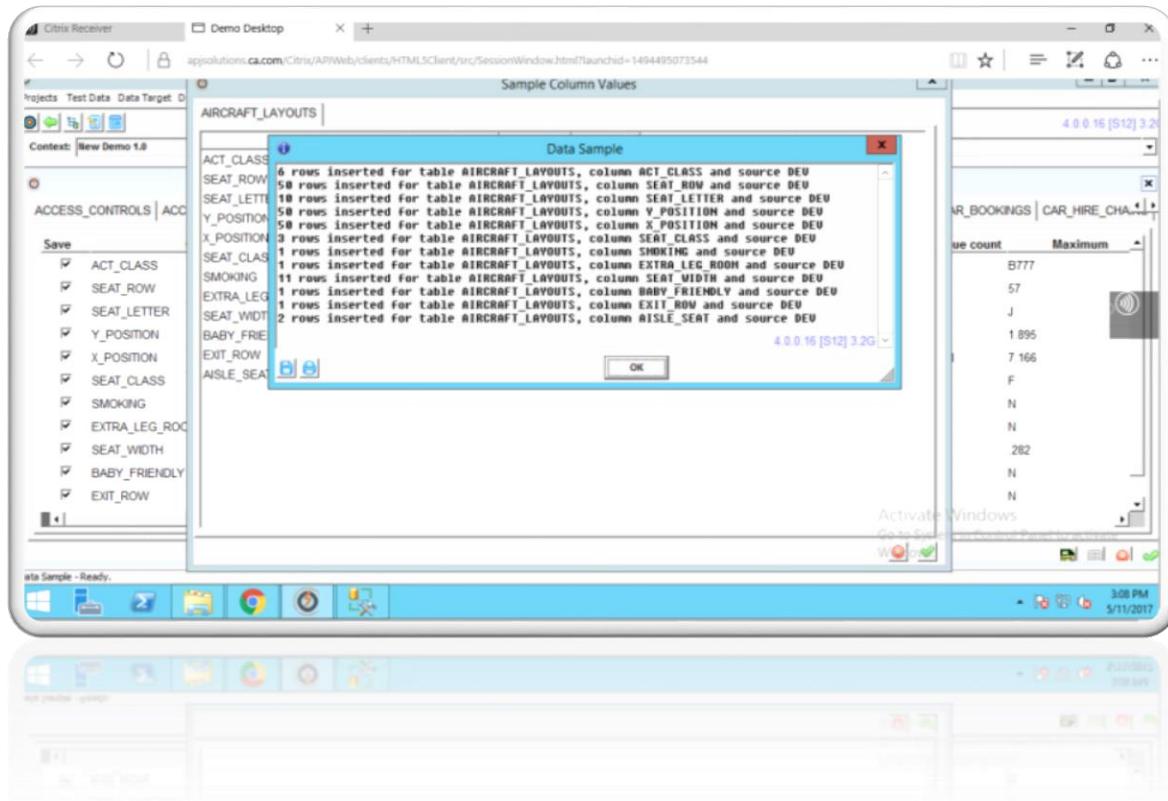
Click Save in Choose Sample Type window



Click Save button in Sample Column Values window



Data Sample window

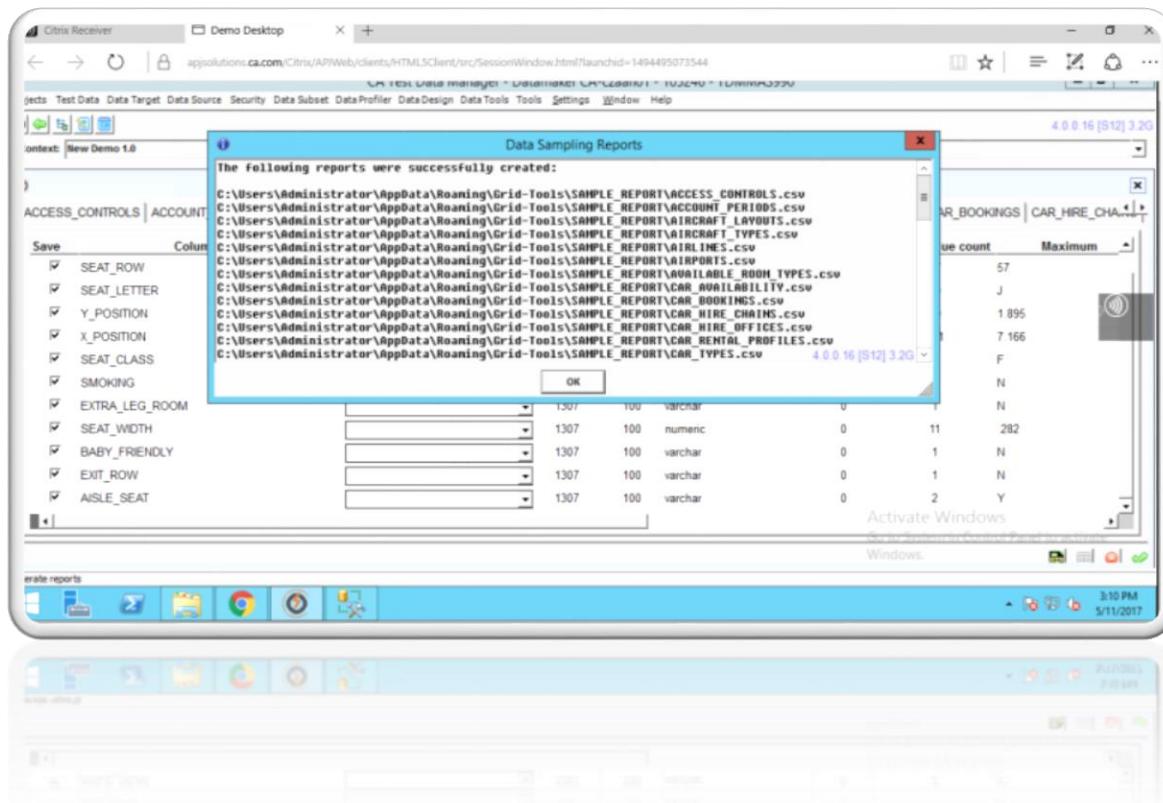


Generate Reports if required

The screenshot shows a Citrix Receiver session titled "Demo Desktop". The main window displays a "Data Sample - Used registered table owner schema." table with columns: Save, Columnname, Values, Rowcount, Pctscan, Datatype, Nullcount, Distinct value count, and Maximum. The table lists various seat-related columns like SEAT_ROW, SEAT_LETTER, Y_POSITION, X_POSITION, etc. A red box highlights the "Generate reports" button in the bottom right corner of the main window. Below the main window, a taskbar is visible with icons for File, Edit, View, Insert, Tools, and Help, along with a "Generate reports" icon. The system tray at the bottom right shows the date and time as 3:09 PM 5/11/2017.

Save	Columnname	Values	Rowcount	Pctscan	Datatype	Nullcount	Distinct value count	Maximum
<input checked="" type="checkbox"/>	SEAT_ROW		1307	100	numeric	0	57	57
<input checked="" type="checkbox"/>	SEAT_LETTER		1307	100	varchar	0	10	J
<input checked="" type="checkbox"/>	Y_POSITION		1307	100	numeric	0	99	1.895
<input checked="" type="checkbox"/>	X_POSITION		1307	100	numeric	0	281	7.166
<input checked="" type="checkbox"/>	SEAT_CLASS		1307	100	varchar	0	3	F
<input checked="" type="checkbox"/>	SMOKING		1307	100	varchar	0	1	N
<input checked="" type="checkbox"/>	EXTRA_LEG_ROOM		1307	100	varchar	0	1	N
<input checked="" type="checkbox"/>	SEAT_WIDTH		1307	100	numeric	0	11	282
<input checked="" type="checkbox"/>	BABY_FRIENDLY		1307	100	varchar	0	1	N
<input checked="" type="checkbox"/>	EXIT_ROW		1307	100	varchar	0	1	N
<input checked="" type="checkbox"/>	AISLE_SEAT		1307	100	varchar	0	2	Y

Reports are generated



2. Data Sub setting

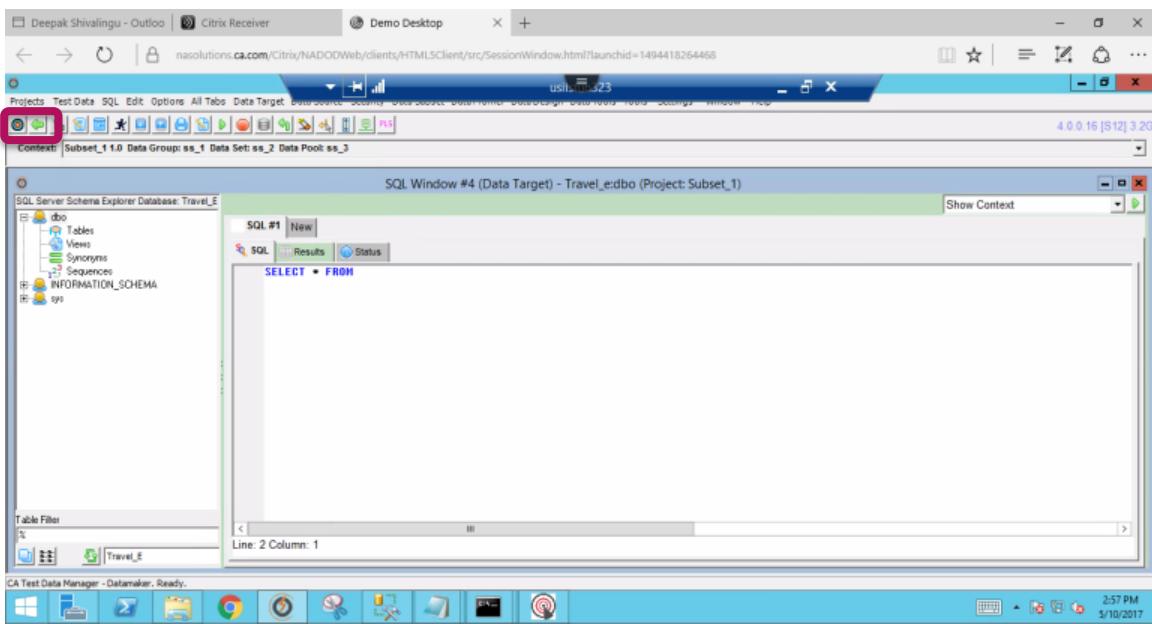
Cloning of specific subsets of data into target environments are done here.

DATASUBSET app is used.

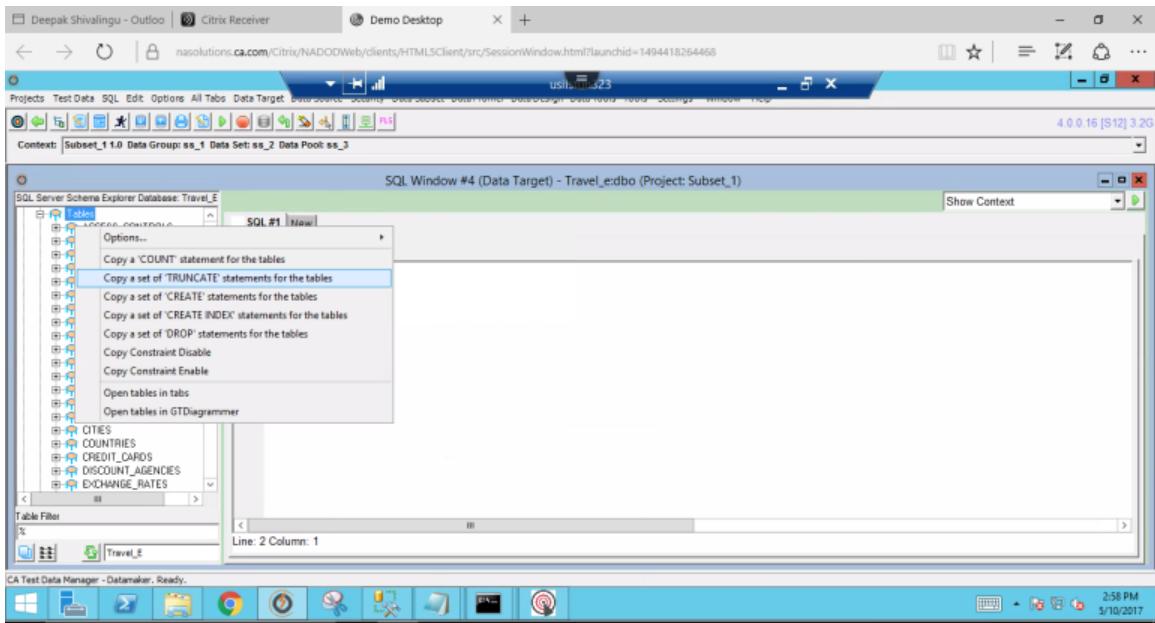
Pre Requisite:

- a. Make sure that you are connected to Data Source and Data target
- b. Create a Project with Data group, Data pool and Data set

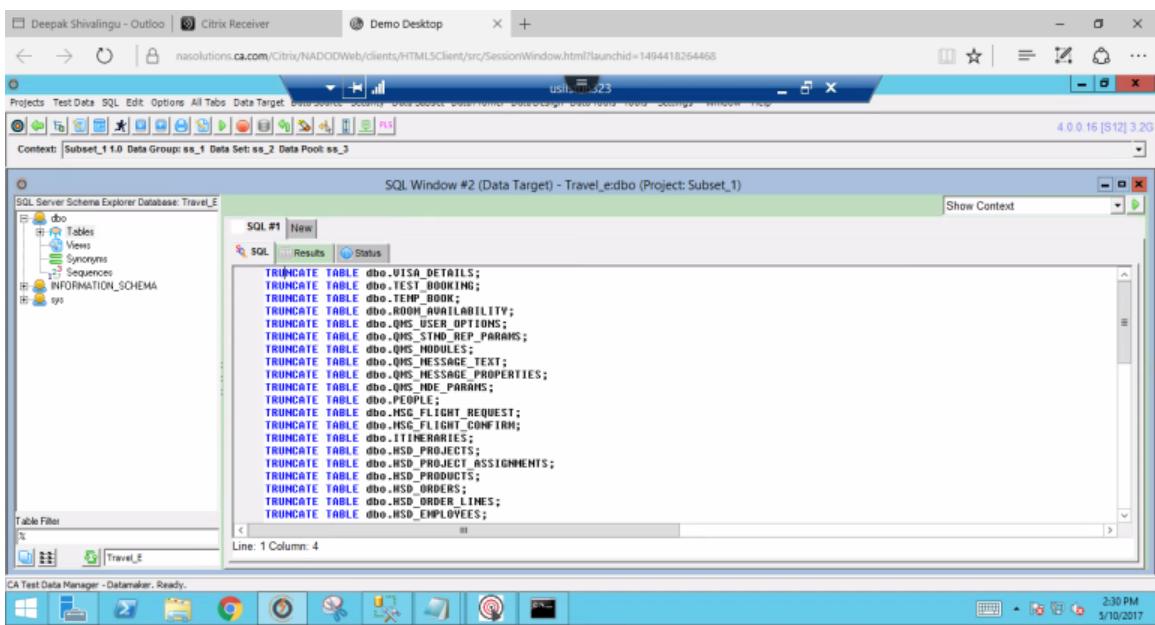
In GT DataMaker click on the Target button



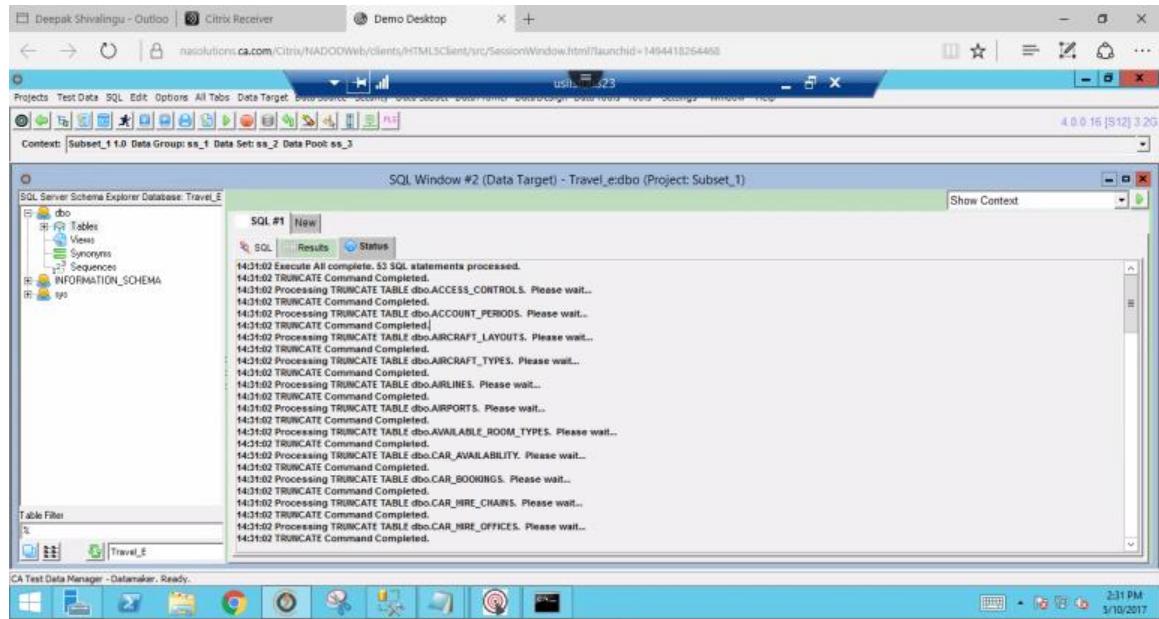
Right Click on Tables and select the option **Copy a set of 'TRUNCATE' statements for the table** option



Paste the copied statements and run by using Alt+A key

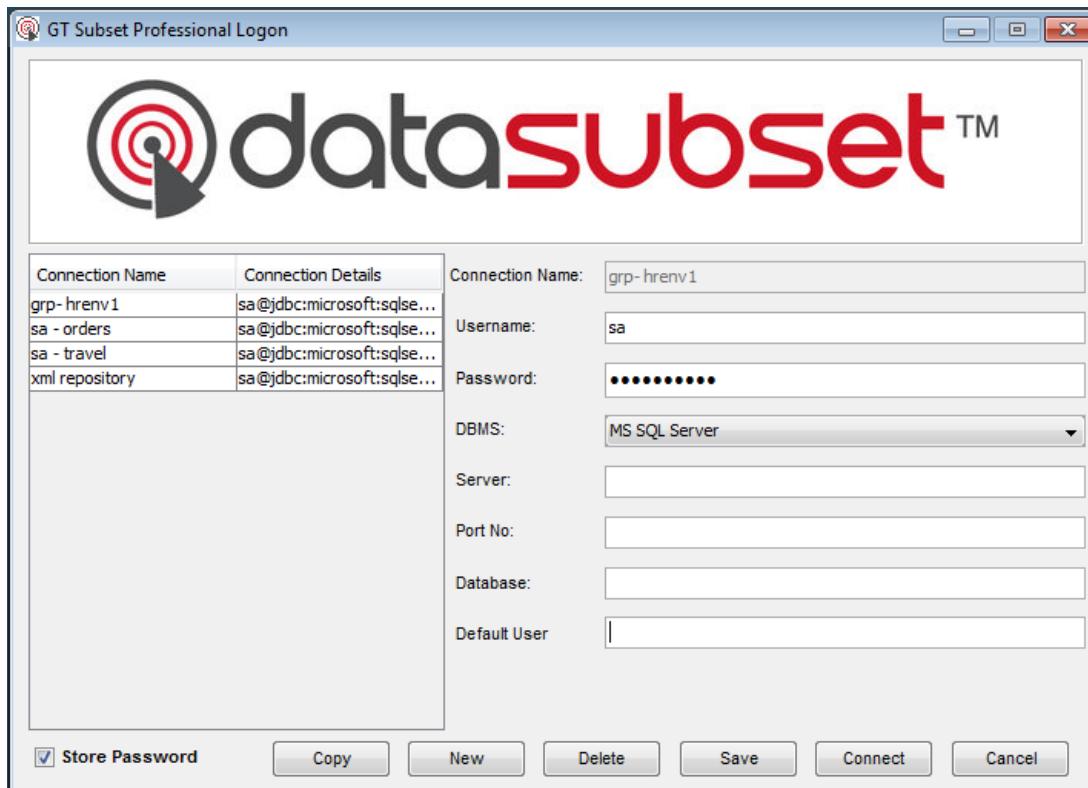


This is to ensure that there is empty database space

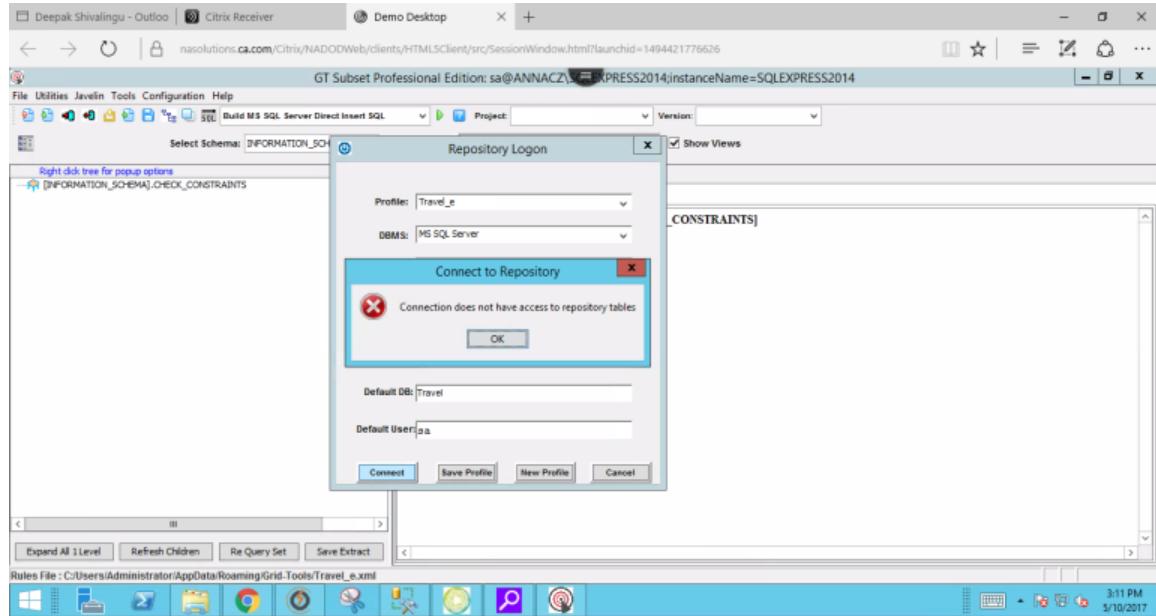


Launch GT SUBSET app

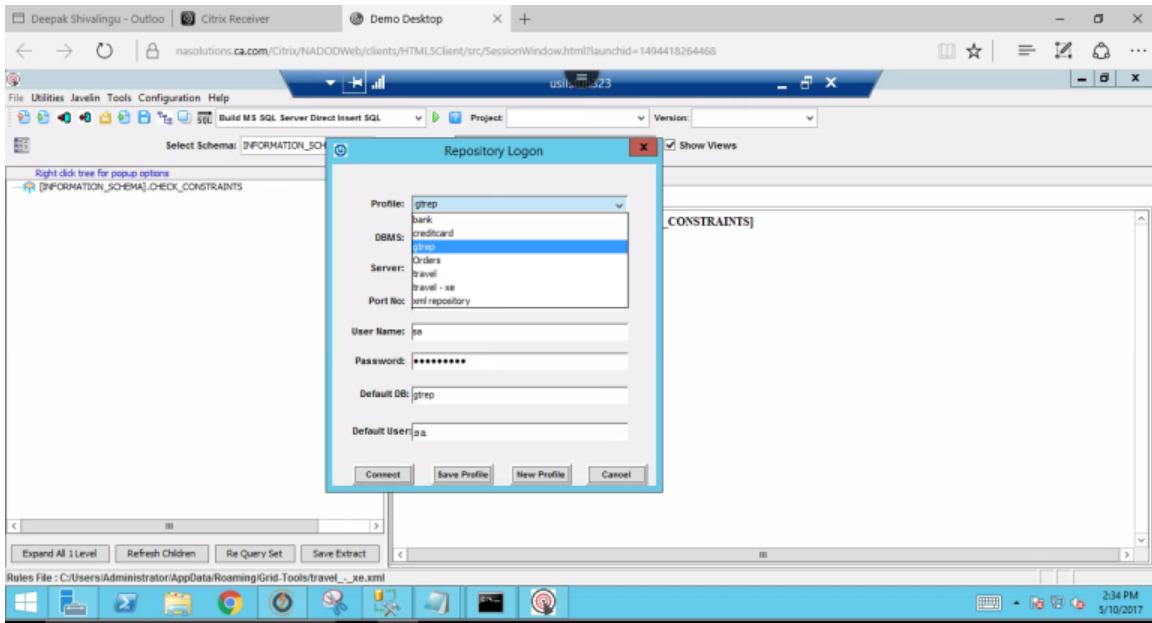
Select available connection to login or create new profile by providing below required details



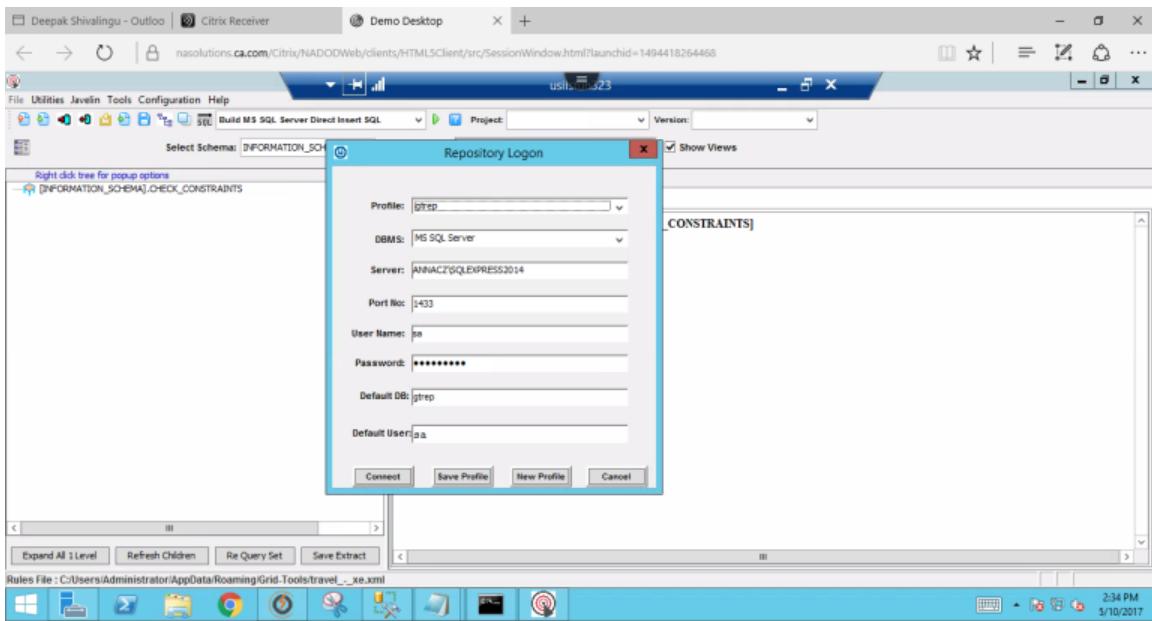
- Select Utilities > Connect Repository
- Select the suitable repository or create a New Profile
- Fill all the details and make sure the connection has access to Repository tables else below error message will display



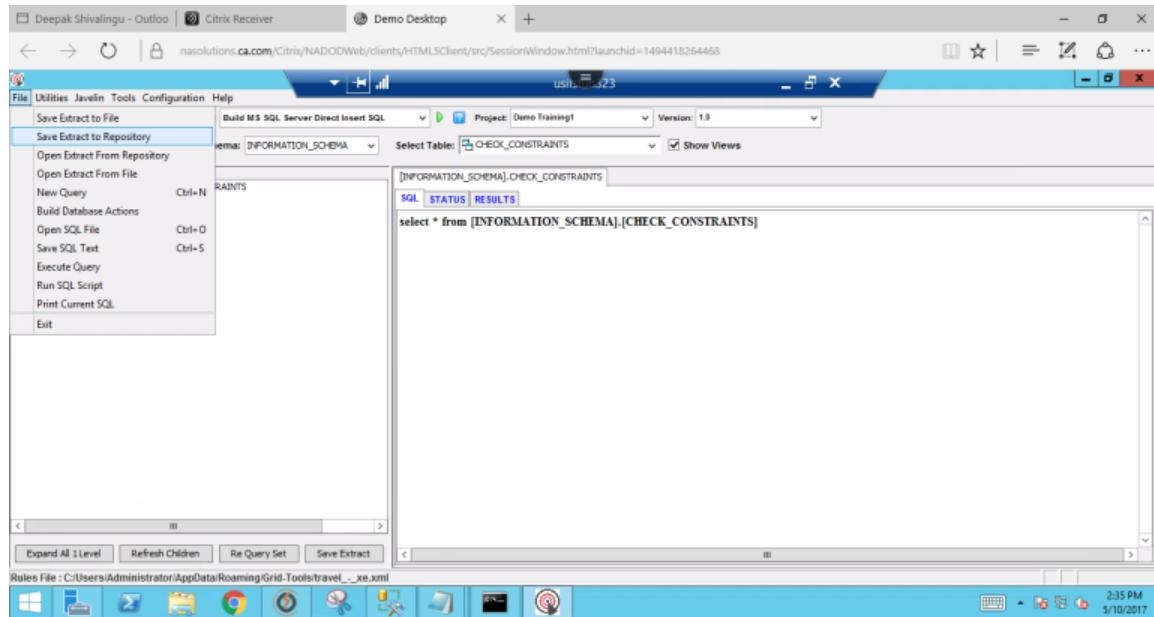
Either select already existing profile from drop down list



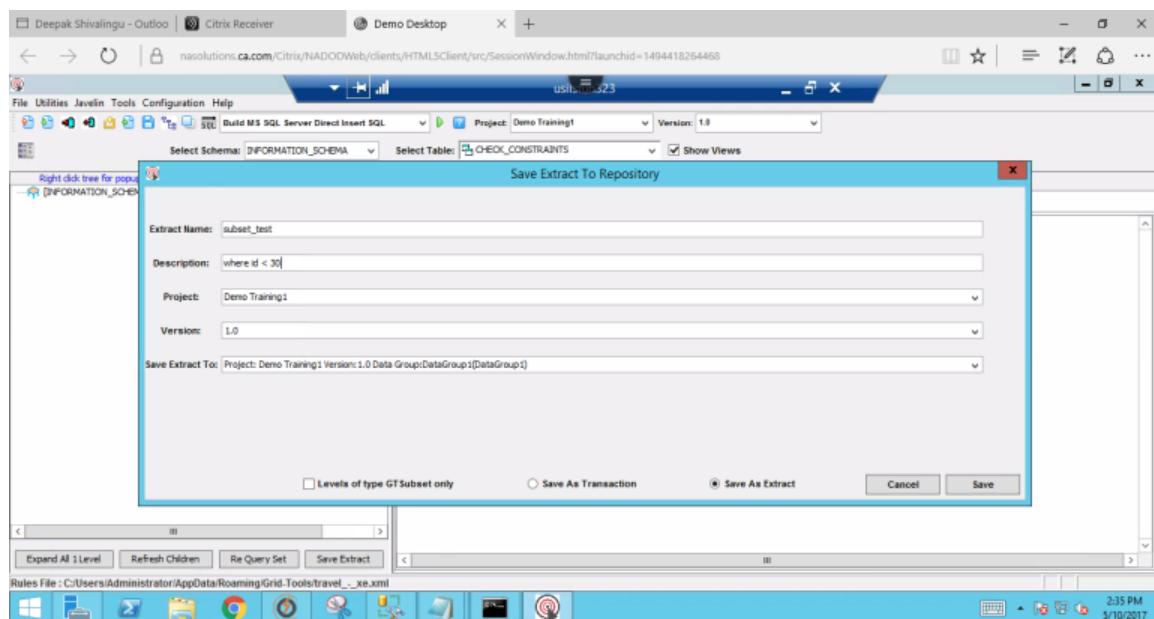
Else fill the details in the Repository Logon window & Click Connect button



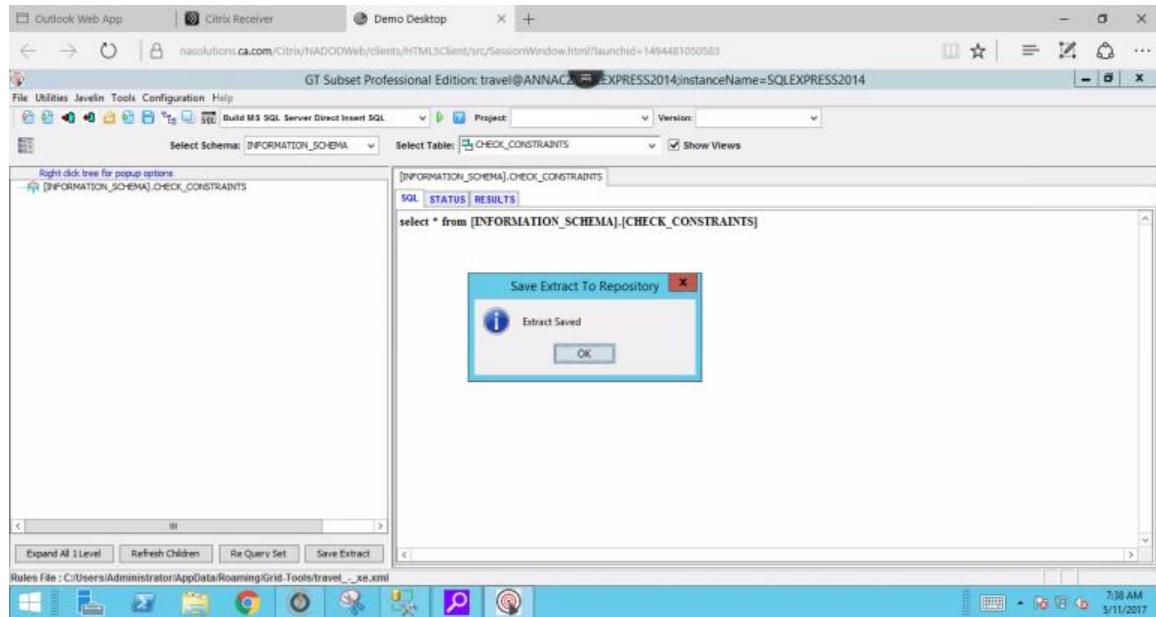
Make sure you save this extract to a Repository by navigating to File > Save Extract to Repository option



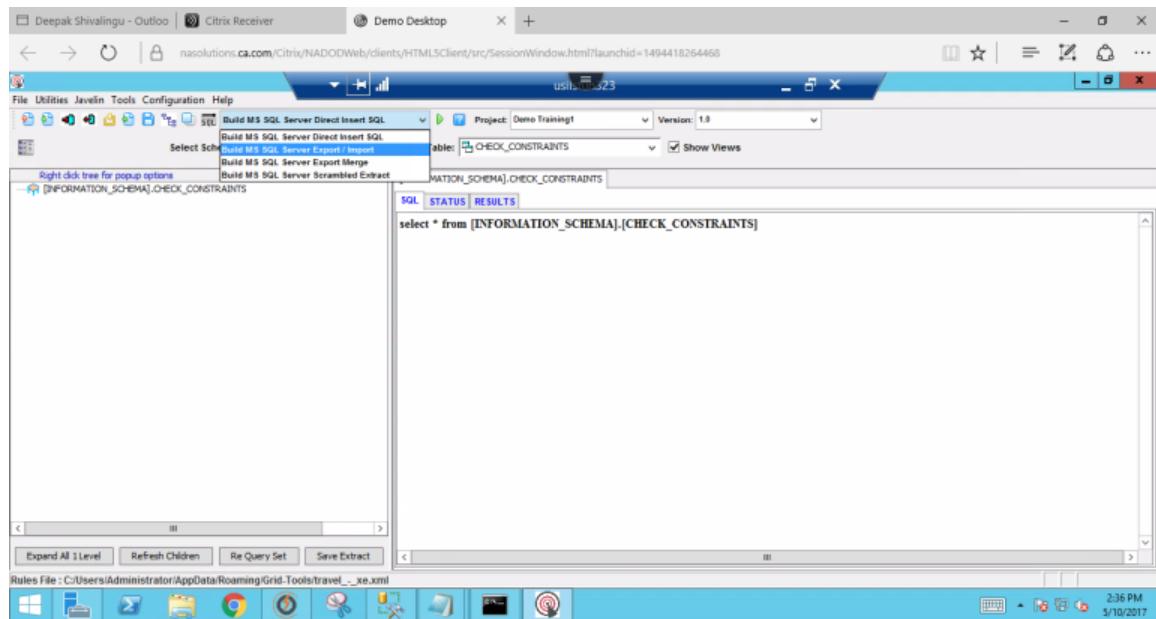
Fill the details and click Save button



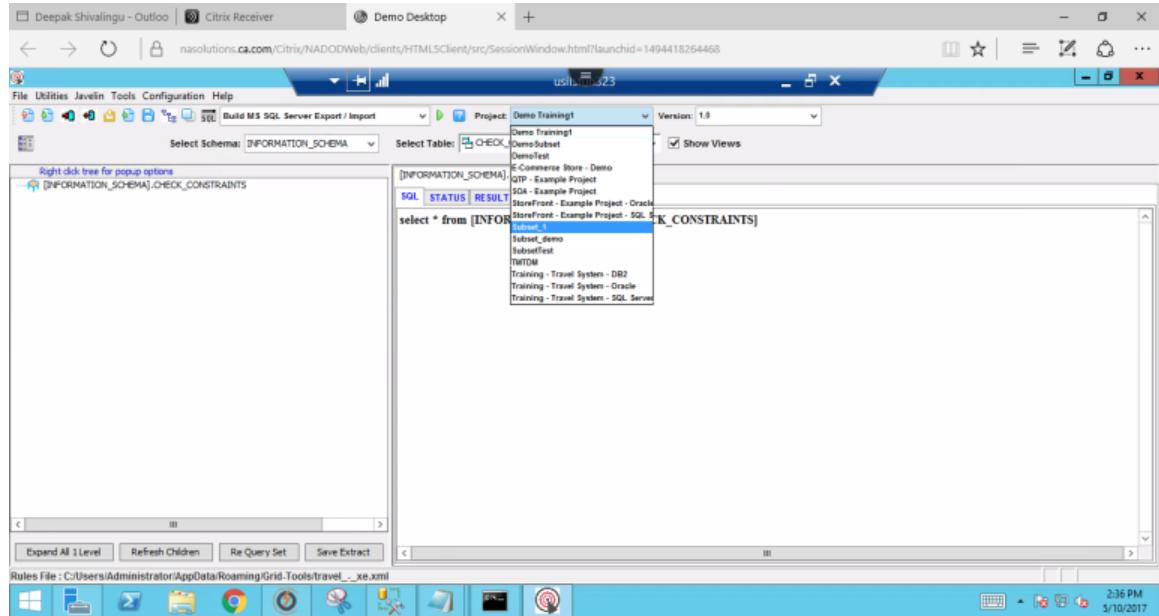
Extract Saved



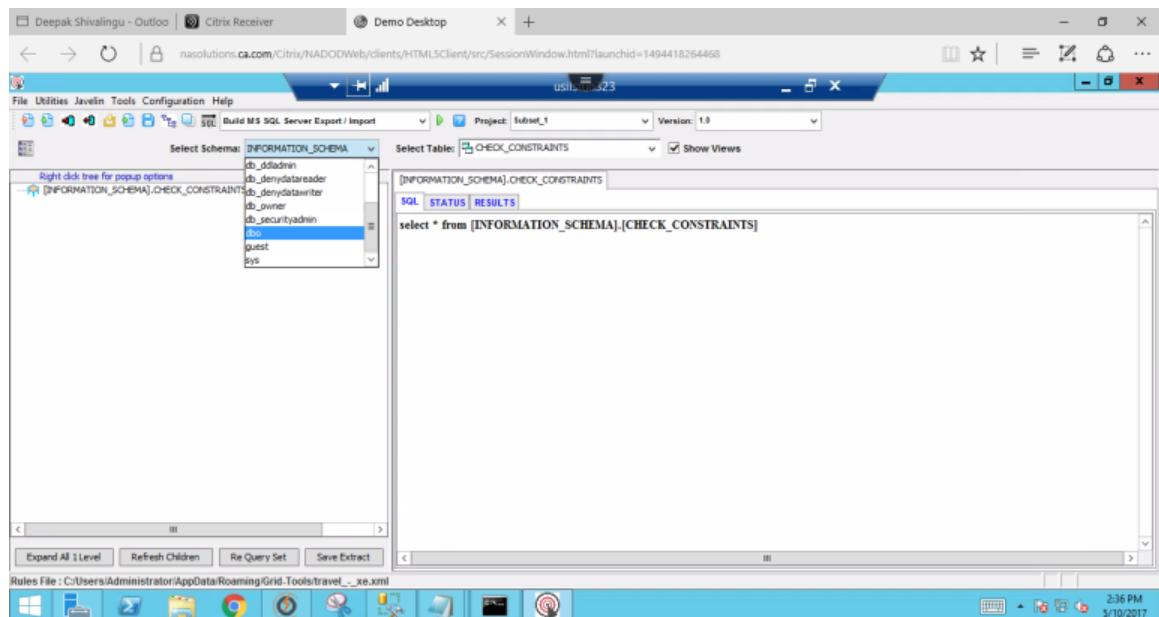
Select Build MS SQL server from Export/Import option from drop down list



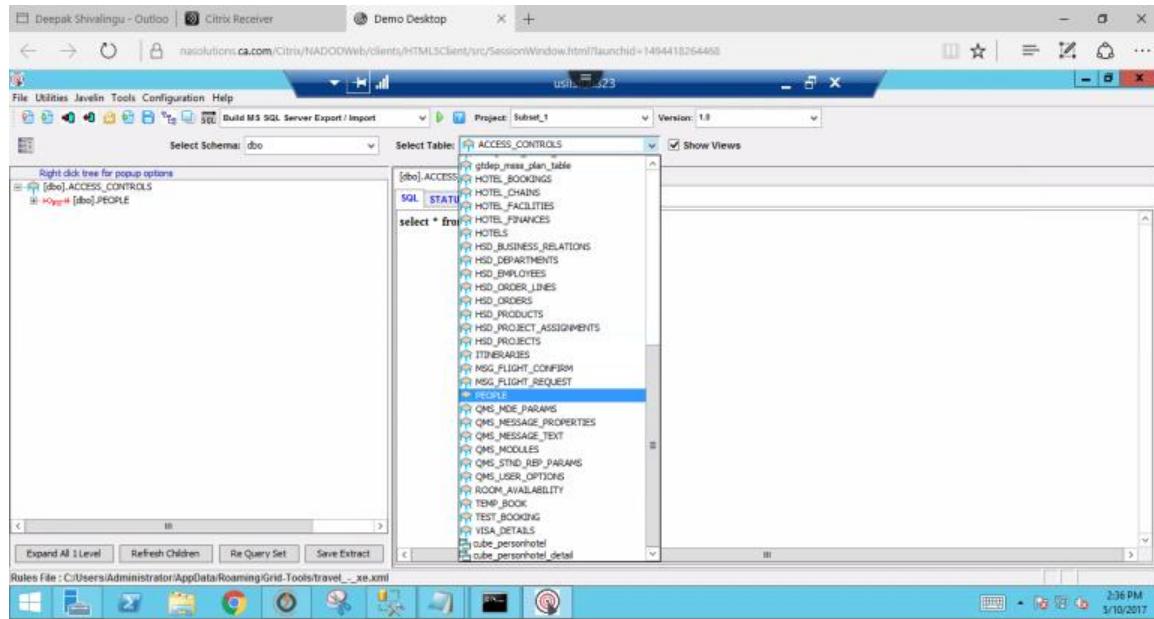
Select Project > Project name from the drop down list (project created as per pre-requisite)



Select Schema > dbo from the drop down list

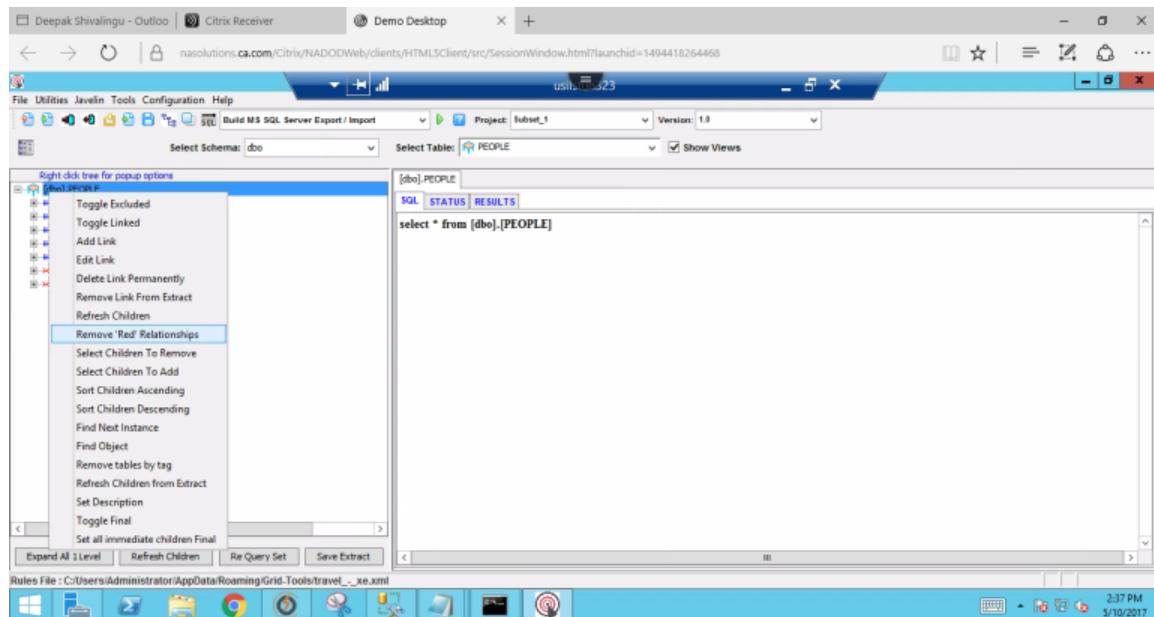


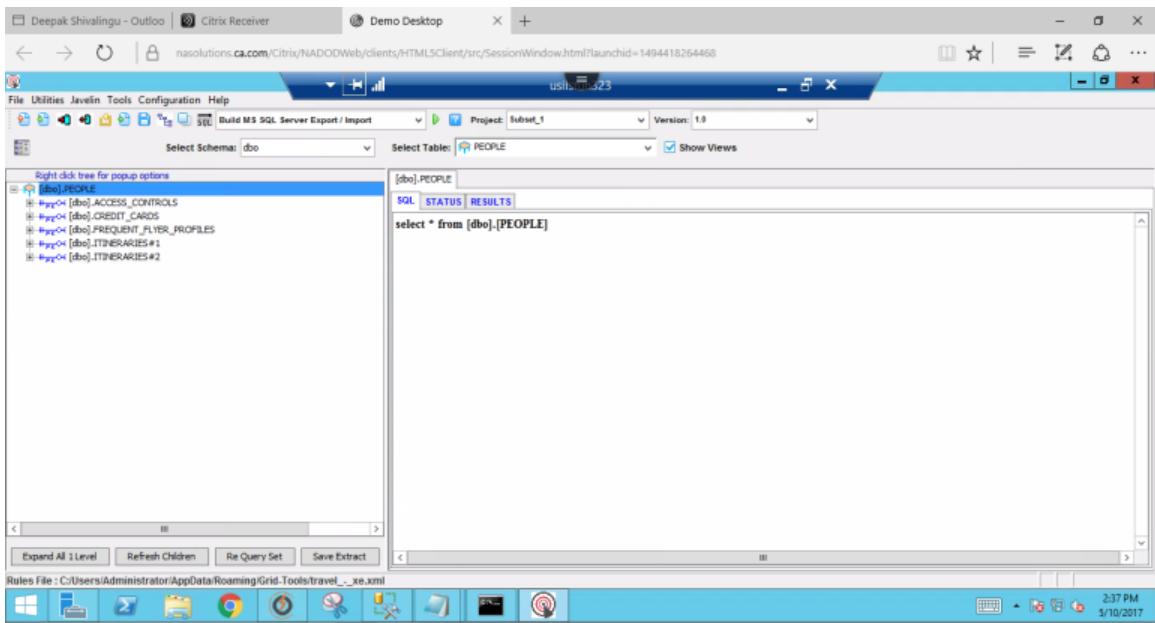
Select the table name from Select Table drop down list



Next Step is to Remove Relationships for managing data hierarchy by, right clicking on PEOPLE's table > Remove 'Red Relationships' option

This is to maintain a certain hierarchy in the table order

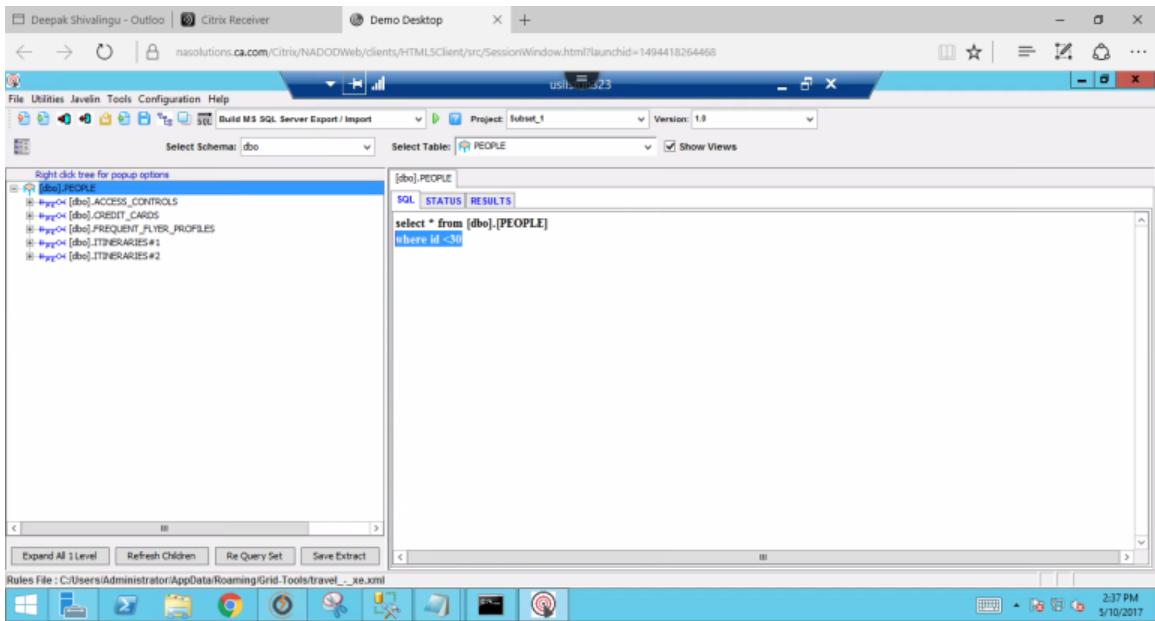




The screenshot shows the Grid-Tools application interface. The left pane displays a tree view of database objects under the schema [dbo]. The selected node is [dbo].[PEOPLE]. The right pane contains a SQL editor with the following query:

```
select * from [dbo].[PEOPLE]
```

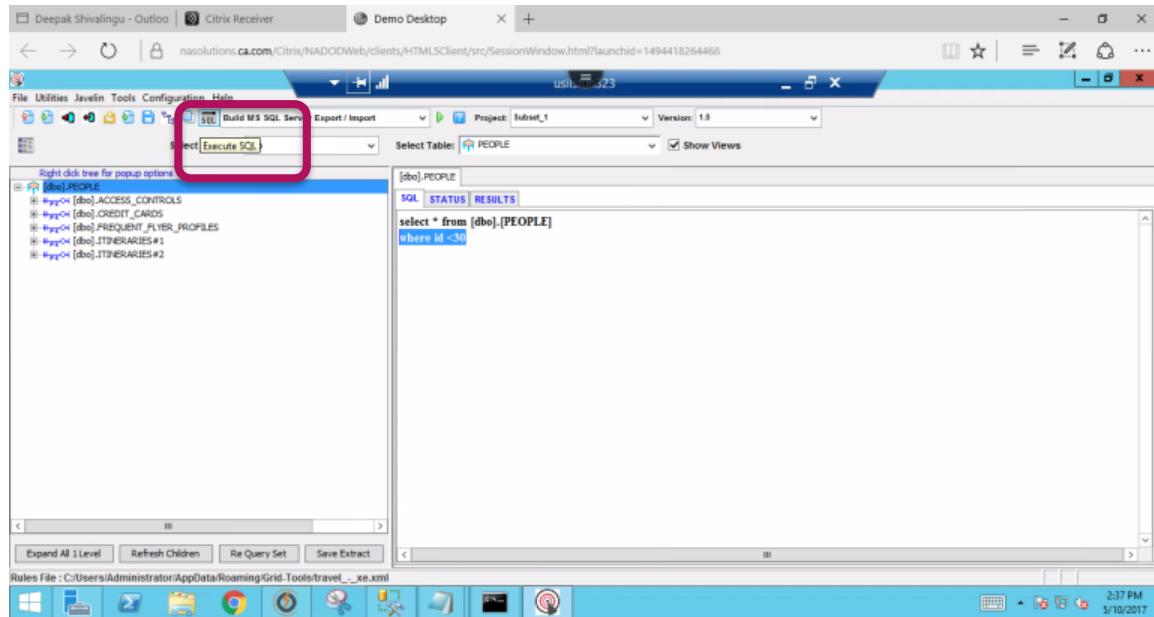
Write an SQL query for the requirements accordingly, here SQL query used is to get ids < 30 from the PEOPLE's table



The screenshot shows the Grid-Tools application interface. The left pane displays a tree view of database objects under the schema [dbo]. The selected node is [dbo].[PEOPLE]. The right pane contains a SQL editor with the following query:

```
select * from [dbo].[PEOPLE]  
where id < 30
```

Execute the SQL statement by clicking the Execute SQL button



Rows retrieved as a result of the SQL query

The screenshot shows the results of the SQL query "select * from [dbo].[PEOPLE] where id < 20" in the "RESULTS" tab. The table has 29 rows. The columns are: ... DESIGNATION, FIRST_NAME, LAST_NAME, JOB_TITLE, ..., EMAIL, CONTACT_PHONE, HOME_PHONE, MOBILE. The data includes various employee names like AMBER NOEL, KATHLEEN SAYAT, ERICK CARDENAS, LAUREN MESS, BENJAMIN PLUMMER, MATT AOKINS, ROBERT RODRIGUEZ, etc., along with their job titles and contact information.

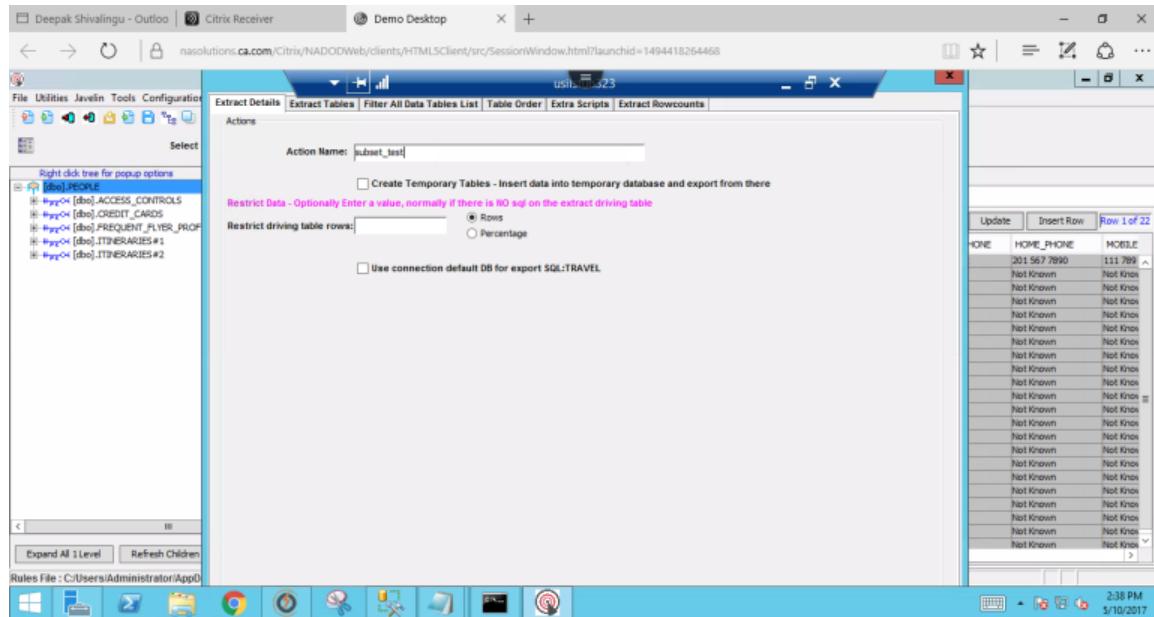
... DESIGNATION	FIRST_NAME	LAST_NAME	JOB_TITLE	...	EMAIL	CONTACT_PHONE	HOME_PHONE	MOBILE
1 MR	AMBER	NOEL	C1	SAL	GILDENHORN@us.oracle.com	201 890 8902	201 567 7890	111 789
2 MR	KATHLEEN	SAYAT	C1	CON	AKAYAT@us.oracle.com	555-0000	Not Known	Not Known
3 MR	ERICK	CARDENAS	C1	CON	ECARDENAS@us.oracle.com	555-0000	Not Known	Not Known
4 MR	LAUREN	MESS	C1	CON	LMESS@us.oracle.com	555-0000	Not Known	Not Known
5 MR	BENJAMIN	PLUMMER	C1	CON	BPLUMMER@us.oracle.com	555-0000	Not Known	Not Known
6 MR	MATT	AOKINS	C1	CON	MAOKINS@us.oracle.com	555-0000	Not Known	Not Known
7 MR	ROBERT	RODRIGUEZ	C1	CON	RRODRIGUEZ@us.oracle.com	555-0000	Not Known	Not Known
8 MR	FAWZI	MARJANOVIC	C1	CON	FMARJANOVIC@us.oracle.com	555-0000	Not Known	Not Known
9 MR	SERGIO	KAVANAUGH	C1	CON	SKAVANAUGH@us.oracle.com	555-0000	Not Known	Not Known
10 MR	JOAO	LARSH	C1	CON	JLARSH@us.oracle.com	555-0000	Not Known	Not Known
11 MR	FRANCISCO	HUMPHREYS	C1	CON	FHUMPHREY@us.oracle.com	555-0000	Not Known	Not Known
12 MR	ELIZABETH	CORRADO	C1	CON	ECORRADO@us.oracle.com	555-0000	Not Known	Not Known
13 MR	SHIRUCHI	REZENDE	C1	CON	SREZENDE@us.oracle.com	555-0000	Not Known	Not Known
14 MR	EDWARDOMR	SHELDOS	C1	CON	ESHELDOS@us.oracle.com	555-0001	Not Known	Not Known
15 MR	ANIL	FEONG	C1	CON	AFFEONG@us.oracle.com	555-0001	Not Known	Not Known
16 MR	YAHIA	WIEBKE	C1	CON	YWIEBKE@us.oracle.com	555-0001	Not Known	Not Known
17 MR	ALEJANDRO	MARROCA	C1	CON	AMARROCA@us.oracle.com	555-0001	Not Known	Not Known
18 MR	JOVAN	JACOBS	C1	CON	JJACOBS@us.oracle.com	555-0001	Not Known	Not Known
19 MR	STEPHEN L	BRADLEY	C1	CON	SBRADLEY@us.oracle.com	555-0001	Not Known	Not Known
20 MR	LANCE	RETTEH	C1	CON	LRETTEH@us.oracle.com	555-0001	Not Known	Not Known
21 MR	MKE	SABBIRE	C1	CON	MSEBBIRE@us.oracle.com	555-0001	Not Known	Not Known
22 MR	THOMAS V	SAYAT	C1	CON	TSAIYAT@us.oracle.com	555-0001	Not Known	Not Known

Next click on the Database Actions Button.

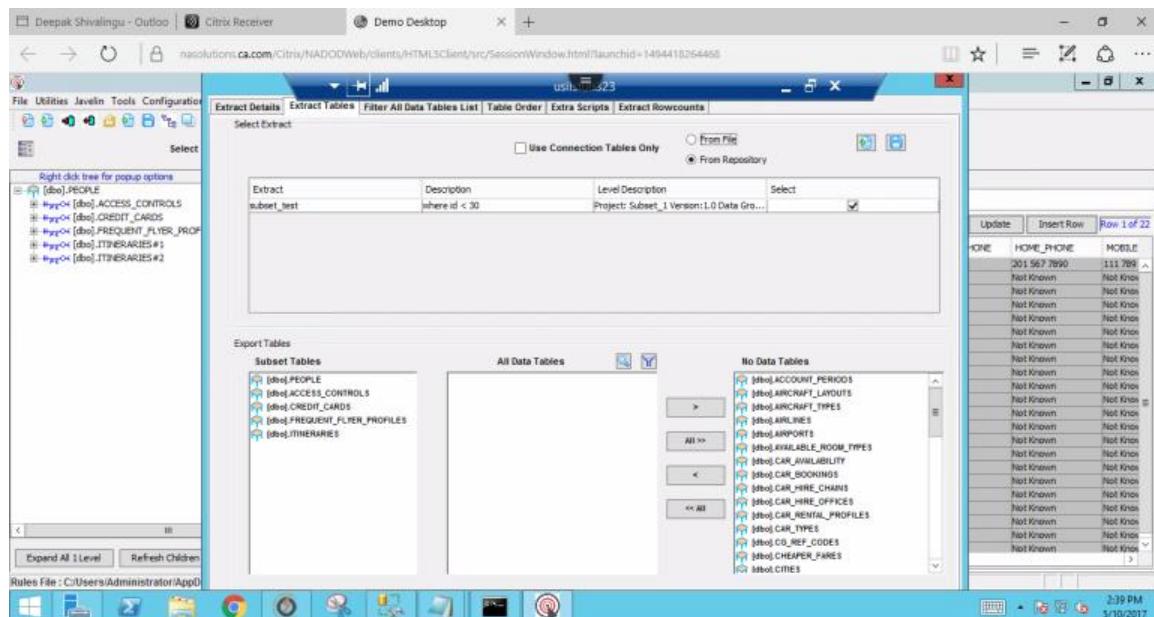
The screenshot shows a Windows desktop environment with a browser window open to 'nasolutions.ca.com'. The main application is 'Grid Tools Configuration' version 1.0, displaying a database schema tree for 'dbo' and a grid table with 22 rows of employee data. The 'Database Actions' button in the toolbar is highlighted with a red circle. The table columns include DESIGNATION, FIRST_NAME, LAST_NAME, JOB_TITLE, L, EMAIL, CONTACT_PHONE, HOME_PHONE, and MOBILE. The data shows various employees like AMBER NOEL, MATT, ROBERT, PAUL, etc., with their respective details.

DESIGNATION	FIRST_NAME	LAST_NAME	JOB_TITLE	L	EMAIL	CONTACT_PHONE	HOME_PHONE	MOBILE
1 MR	AMBER	NOEL	GILDEHHORN	C1	SAL.AGILEDFH@us.oracle.com	201 890 8902	201 567 7890	111 765
2 MR	CHRISTIAN	SHAW	KING	C1	CON.LADYKING@us.oracle.com	555-0000	Not Known	Not Known
3 MR	BRICK	CARDENAS	C3	CON.ECARDENA@us.oracle.com	555-0000	Not Known	Not Known	Not Known
4 MR	LAUREN	MOSCIA	C3	CON.LINDSAY@us.oracle.com	555-0000	Not Known	Not Known	Not Known
5 MR	BERNARDIN	PILIMMER	C3	CON.BRPLIMMER@us.oracle.com	555-0000	Not Known	Not Known	Not Known
6 MR	MATT	ACKDINS	C3	CON.MADDINS@us.oracle.com	555-0000	Not Known	Not Known	Not Known
7 MR	ROBERT	RODRIGUEZ	C3	CON.RRDRIGUEZ@us.oracle.com	555-0000	Not Known	Not Known	Not Known
8 MR	PAUL	MARJANOVIC	C3	CON.PMARJAN@us.oracle.com	555-0000	Not Known	Not Known	Not Known
9 MR	SERGIO	KAVANAUGH	C3	CON.SKAVANAU@us.oracle.com	555-0000	Not Known	Not Known	Not Known
10 MR	JOAO	LABSH	C3	CON.JLABSH@us.oracle.com	555-0000	Not Known	Not Known	Not Known
11 MR	FRANCISCO	HUMPHREYS	C3	CON.FHUMPHRE@us.oracle.com	555-0000	Not Known	Not Known	Not Known
12 MR	ELIZABETH	CORRADO	C3	CON.ECORRADO@us.oracle.com	555-0000	Not Known	Not Known	Not Known
13 MR	SHIRLIE	REZENDE	C3	CON.SREZENDE@us.oracle.com	555-0000	Not Known	Not Known	Not Known
14 MR	EDWARD	SHELDON	C3	CON.ESHELD@us.oracle.com	555-0001	Not Known	Not Known	Not Known
15 MR	ANDI	FELONG	C3	CON.APFLONG@us.oracle.com	555-0001	Not Known	Not Known	Not Known
16 MR	PAUL	WIECZOREK	C3	CON.PWIECZOR@us.oracle.com	555-0001	Not Known	Not Known	Not Known
17 MR	ALEJANDRO	NISHOKA	C3	CON.ANISHOK@us.oracle.com	555-0001	Not Known	Not Known	Not Known
18 MR	JOVAN	JACOBS	C3	CON.JJACOBS@us.oracle.com	555-0001	Not Known	Not Known	Not Known
19 MR	STEPHEN	BRADLEY	C3	CON.SBRADLEY@us.oracle.com	555-0001	Not Known	Not Known	Not Known
20 MR	LANCE	BETTIN	C3	CON.LBETTIN@us.oracle.com	555-0001	Not Known	Not Known	Not Known
21 MR	MIKE	SARRIBRE	C3	CON.MMEASURER@us.oracle.com	555-0001	Not Known	Not Known	Not Known
22 MR	THOMAS	V. SAYYAT	C3	CON.TBAYAT@us.oracle.com	555-0001	Not Known	Not Known	Not Known

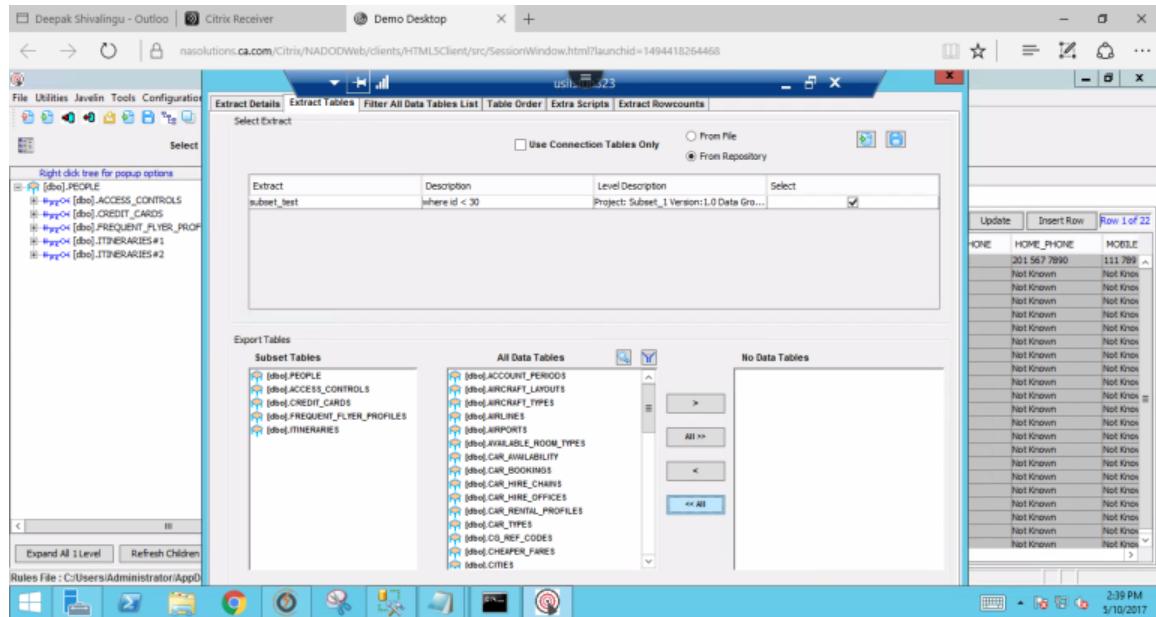
Give Action Name, & navigate to Extract Table tab



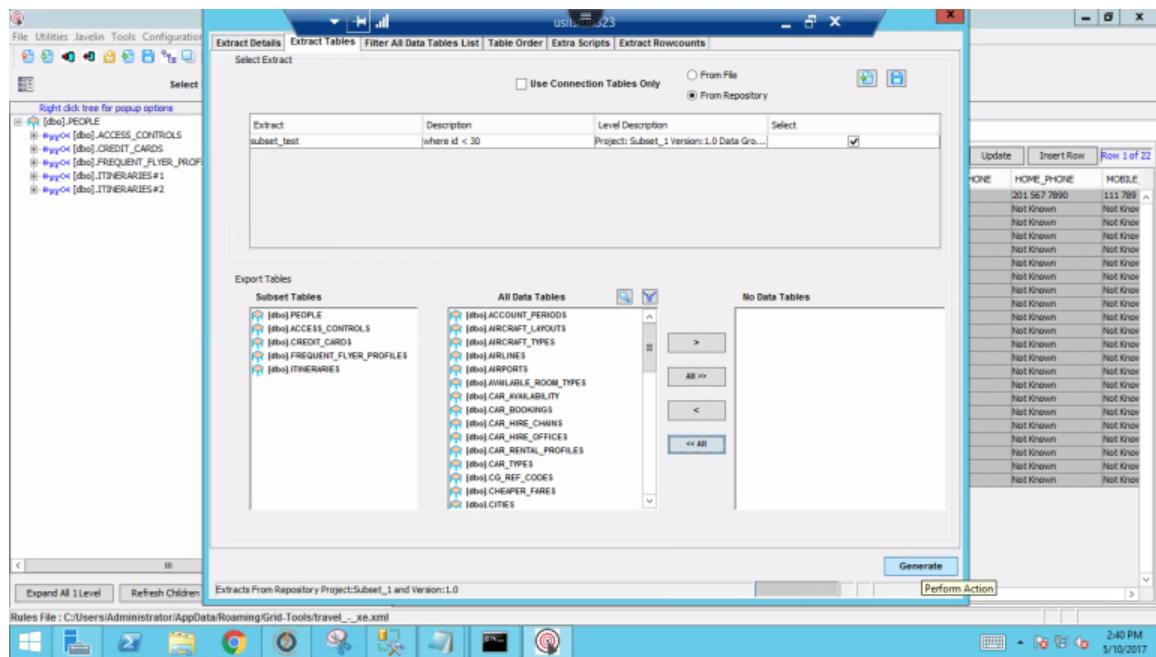
The Extract you have saved earlier will be automatically checked in or else select the extract by checking the check box of the saved extract



Choose the data tables which are required

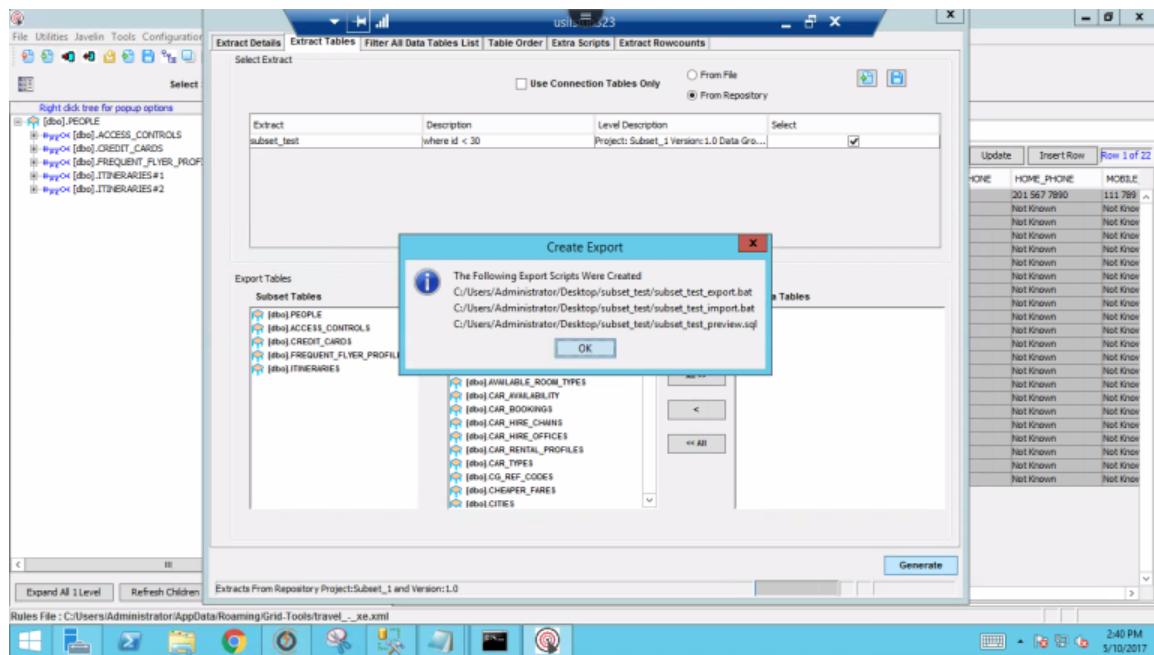


Click on Generate button

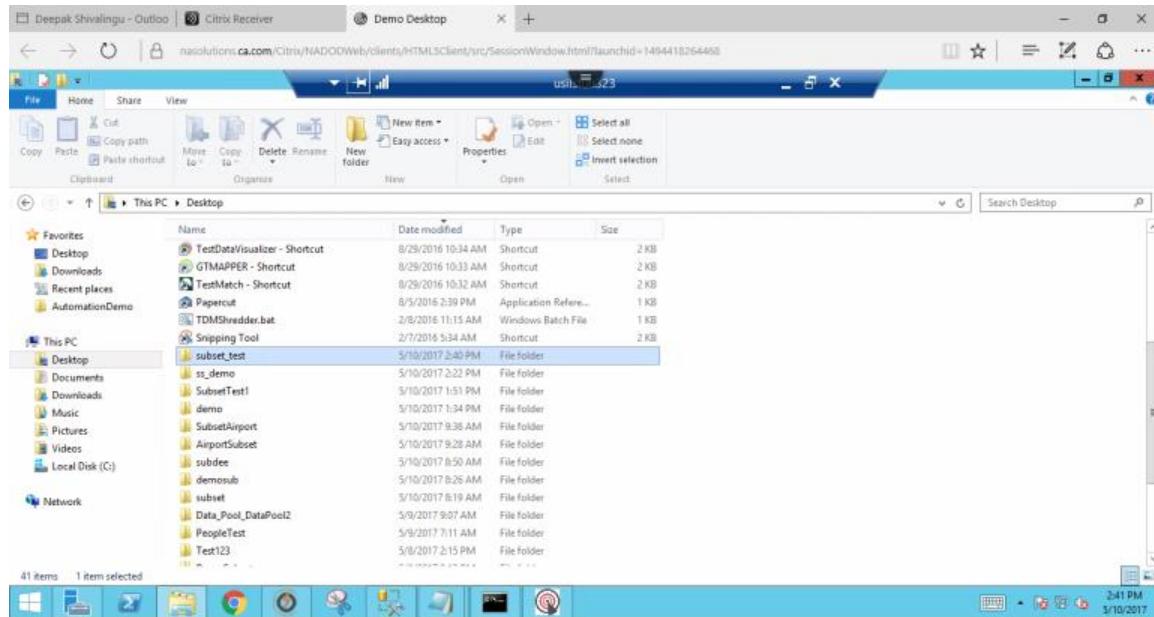


Once you Click on Generate button, the following 3 files will be generated

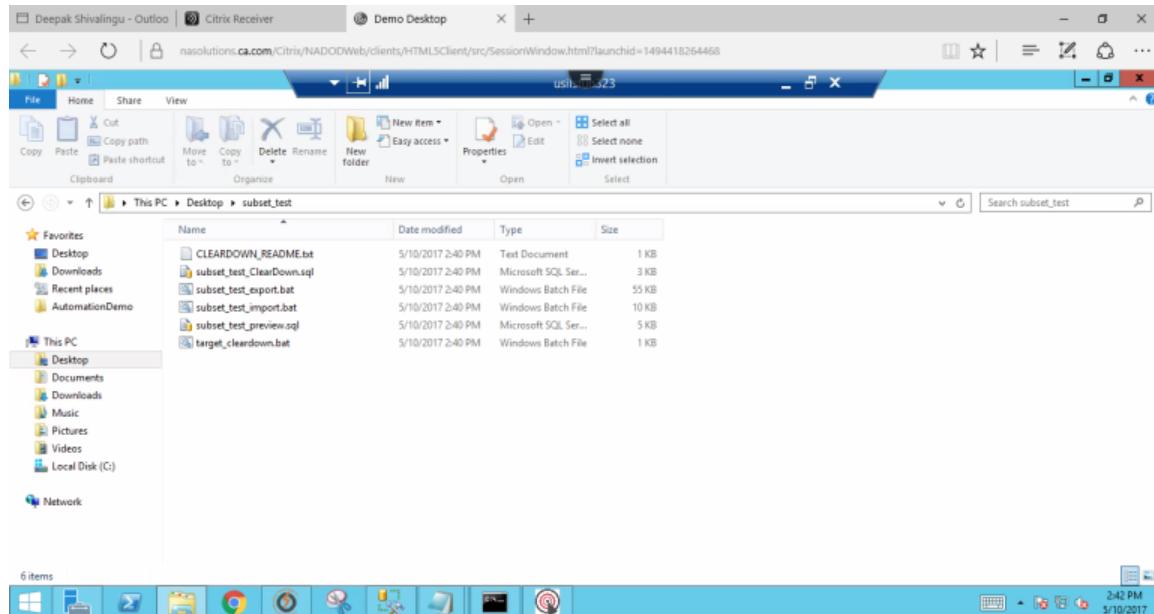
- a) 'Subsetname'_Export.bat
- b) 'Subsetname'_import.bat
- c) 'Subsetname'_preview.sql



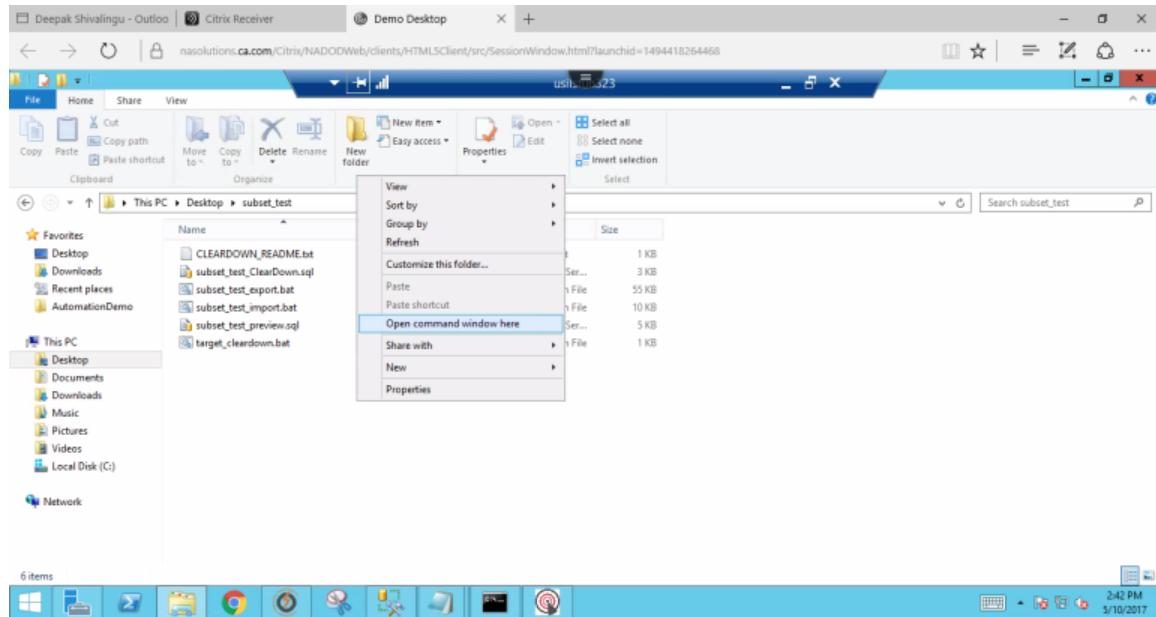
Navigate to the mentioned location



Files are displayed



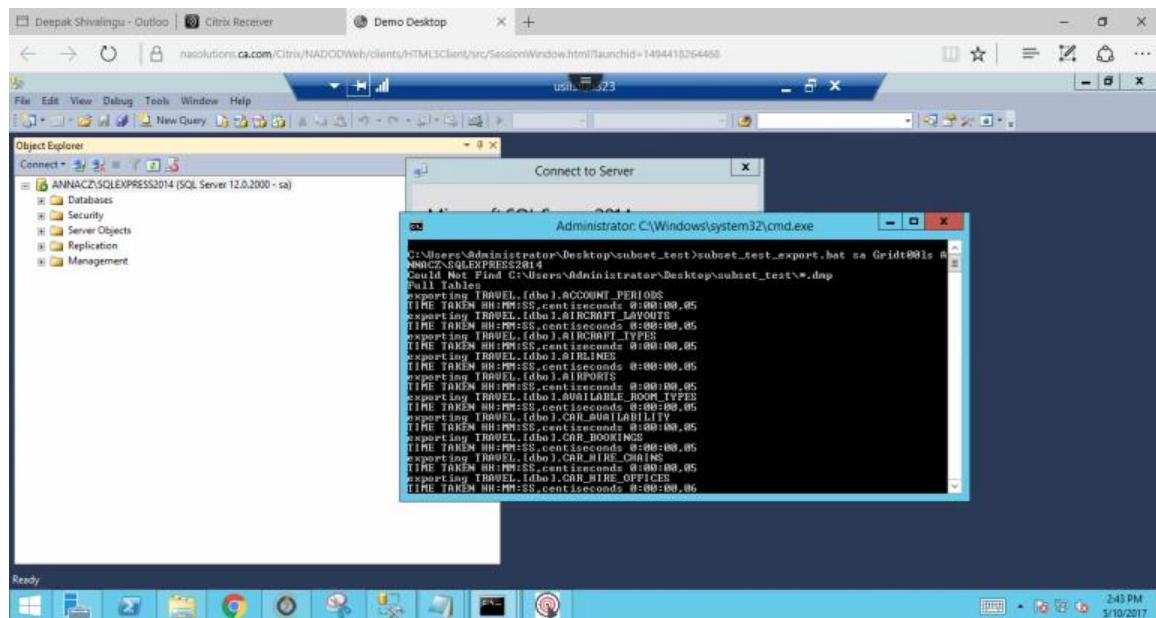
Hold Shift+Right Click Mouse > open the Command Prompt so that the command prompt is in the same directory where the 3 files are



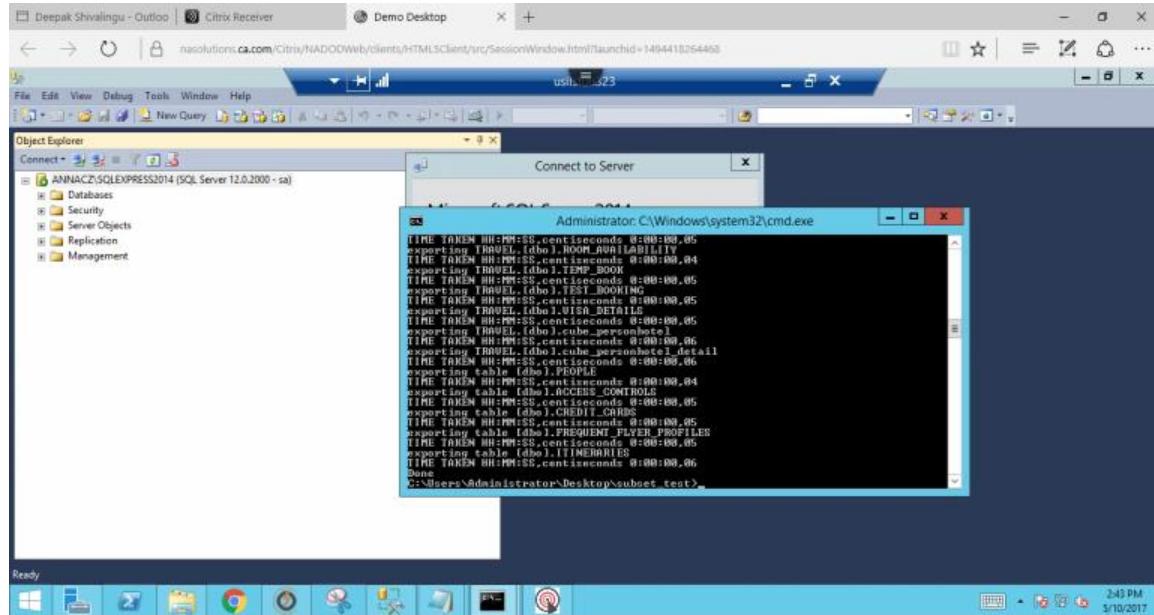
Execute the export.bat file by giving the username & password of the server and the server name as shown below:

Here the command executed is subset_test_export.bat

(sa/Gridtools with server name as: ANNACZ\SQLEXPRESS2014)

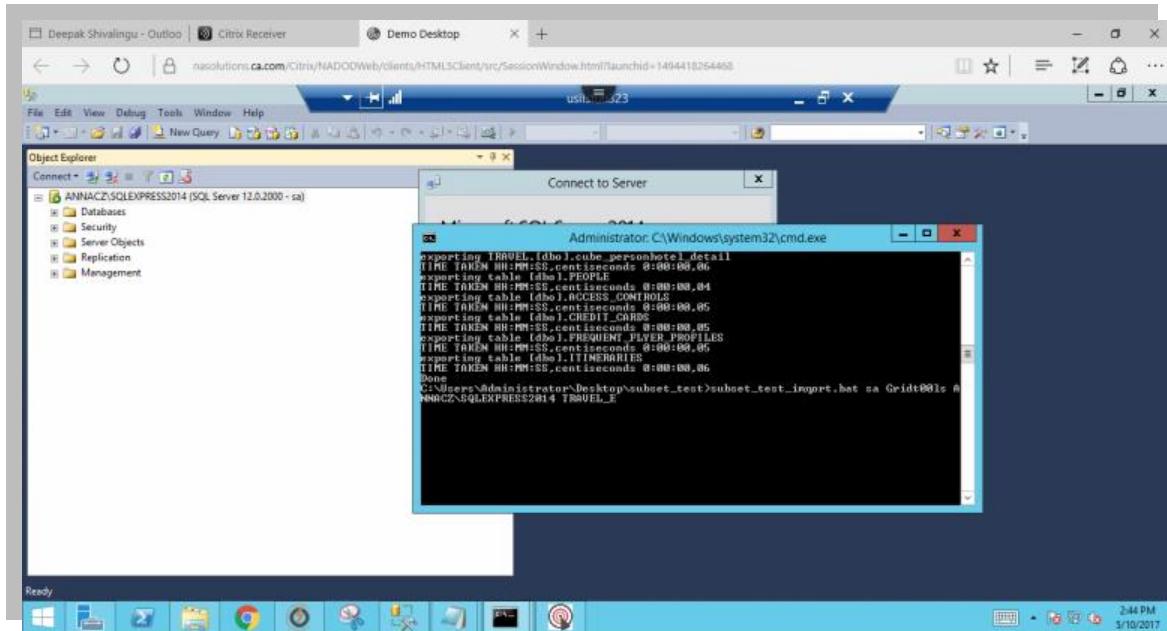


Once the command is executed, below screen displays

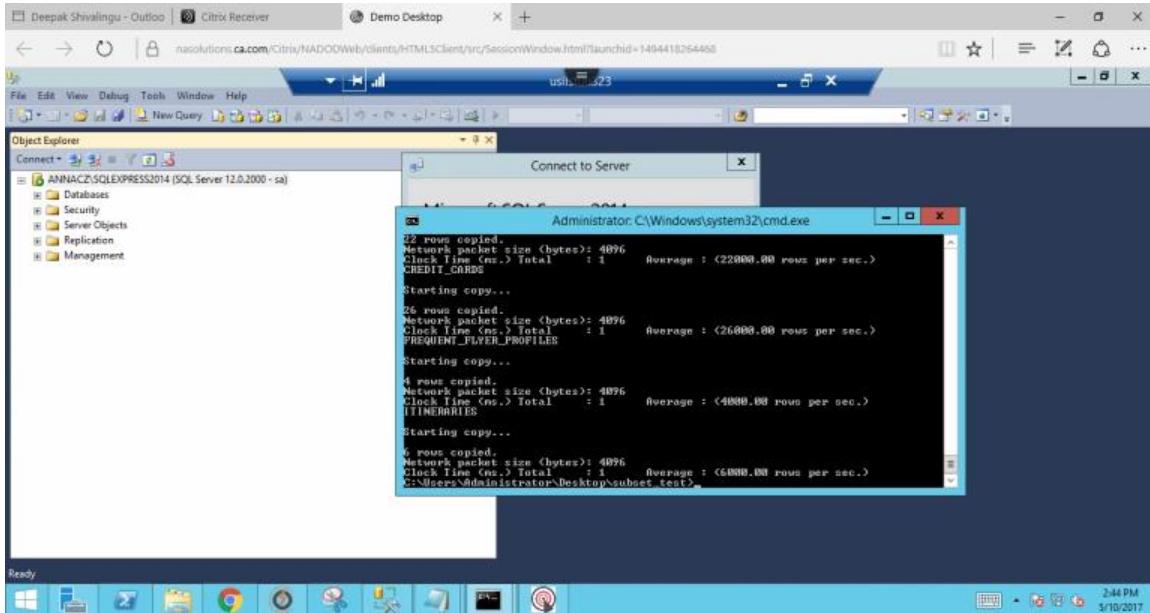


After exporting we have to import the Files to the Target, this is done by executing the import.bat file as shown below:

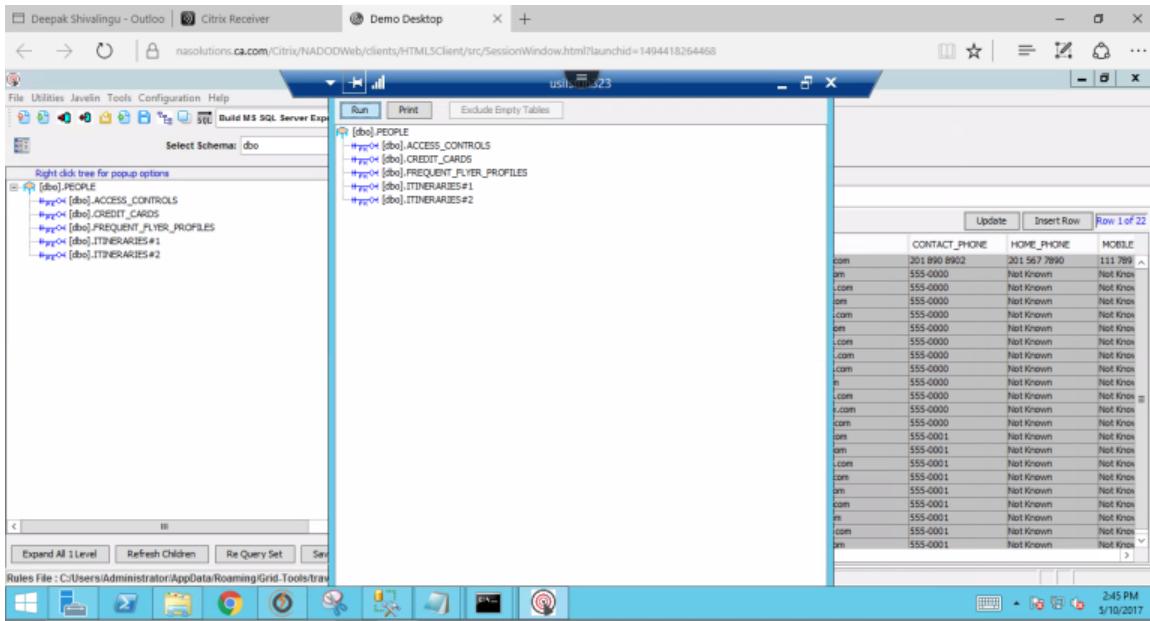
Here the command executed is subset_test_import.bat (id: sa/Gridtools and Server name as: ANNACZ\SQLEXPRESS2014 TRAVEL_EX) where TRAVEL_EX is the Target Name



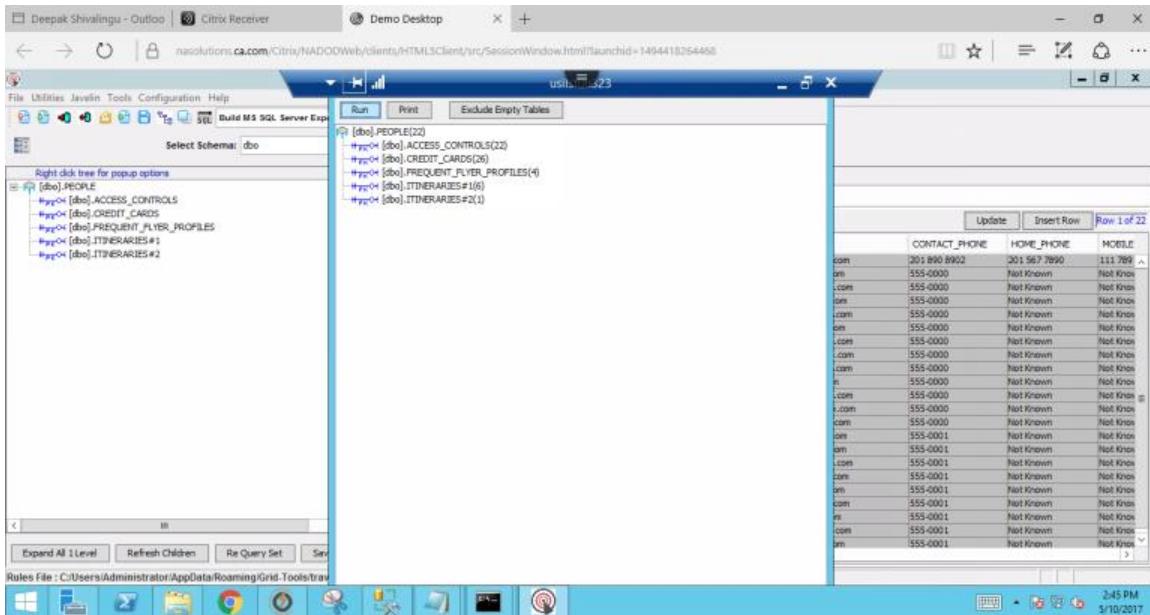
After Executing, the rows will be imported



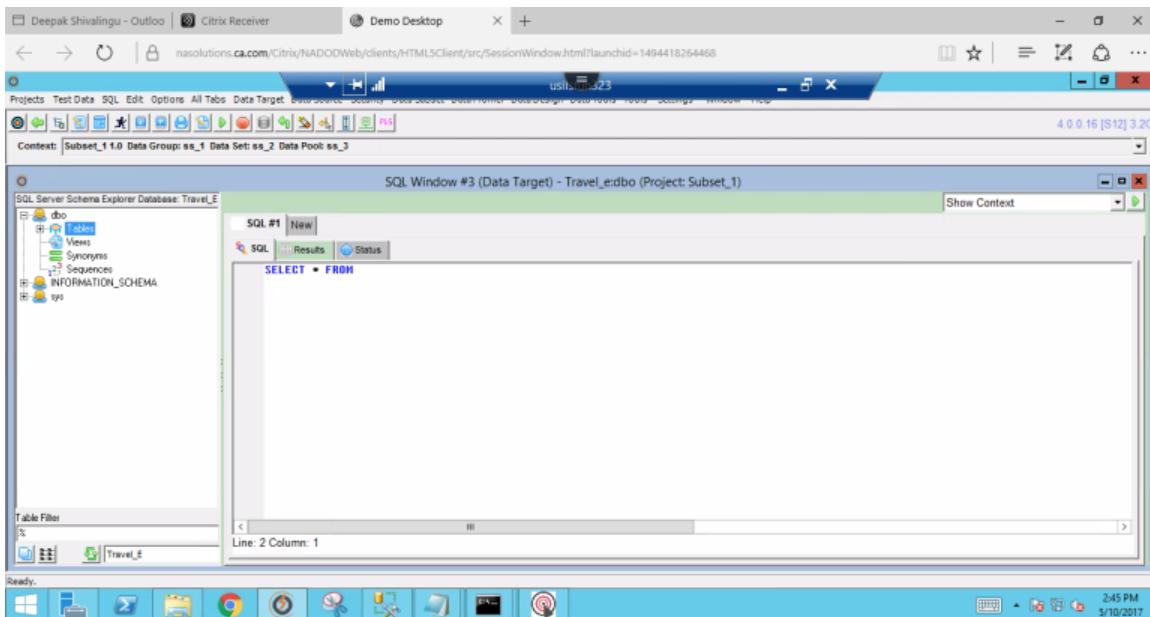
Navigate to Data Subset and Click on the Preview SQL button and click on RUN

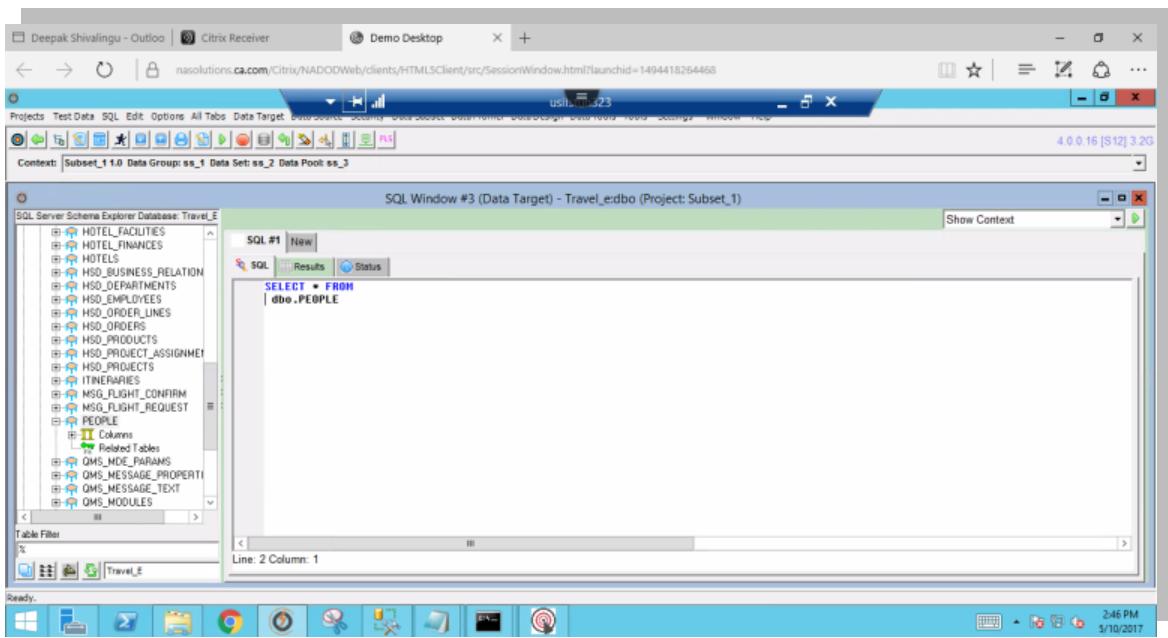


The Number of Rows which are imported will be displayed



From the Tables run a SQL query to fetch the rows





The number of rows fetched are shown as below

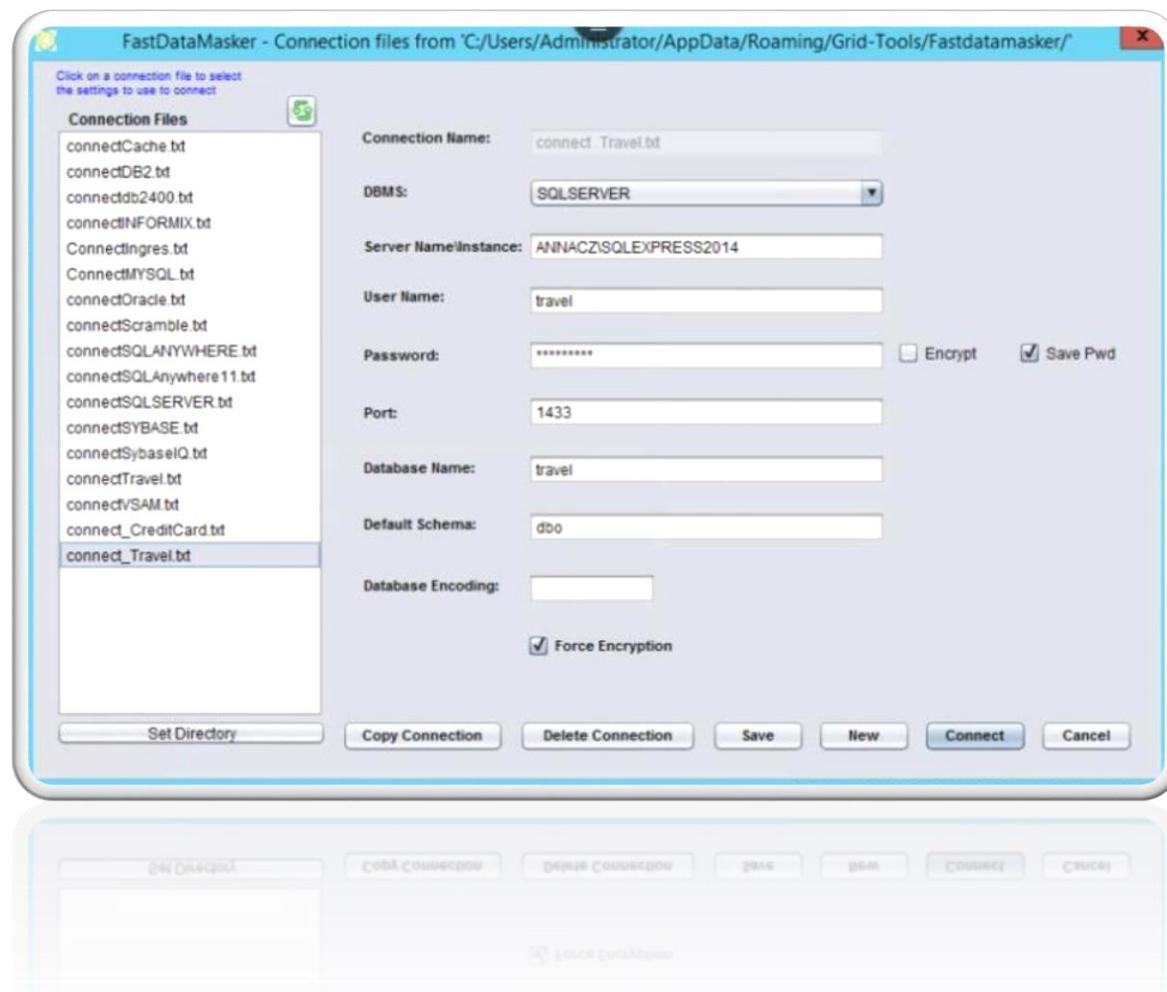
ID	Designation	First Name	Last Name	Job Title	LOD	Email	Contact Phone	Home Phone	Mobile Phone
1	AMBER	NOEL	GILDENHORN	C1	SAL	AGILDENHORUS.oracle.com	201 890 8902	201 567 7890	111 789 9010
2	KATHLEEN	BAYYAT	C3	CON	KBAYYATUS.oracle.com	555-0000	Not Known	Not Known	Not Known
3	ERIK	CARDENAS	C3	CON	ECARDENAVUS.oracle.com	555-0000	Not Known	Not Known	Not Known
4	LAUREN	MISS	NISHIOKA	C3	CON	LNISHIOKUS.oracle.com	555-0000	Not Known	Not Known
5	BENJAMIN	PLUMIER	C3	CON	BPLUMIERNUS.oracle.com	555-0000	Not Known	Not Known	Not Known
6	MATT	ADKINS	C3	CON	MADKINDUS.oracle.com	555-0000	Not Known	Not Known	Not Known
7	ROBERT	RODRIGUZ	C3	CON	RRODRIGUOUS.oracle.com	555-0000	Not Known	Not Known	Not Known
8	FARIZ	MARJANOVIC	C3	CON	FMARJANOVUS.oracle.com	555-0000	Not Known	Not Known	Not Known
9	SERGIO	KAVANAUGH	C3	CON	SKAVANAUUS.oracle.com	555-0000	Not Known	Not Known	Not Known
10	ROD	LAWRENCE	C3	CON	DLAWRENCEUS.oracle.com	555-0000	Not Known	Not Known	Not Known
11	FRANCISCO	HARPHREYS	C3	CON	FHARPHREYUS.oracle.com	555-0000	Not Known	Not Known	Not Known
12	ELIZABETH	CORRADO	C3	CON	ECORRADOUUS.oracle.com	555-0000	Not Known	Not Known	Not Known
13	SHINICHIR	KEZENDE	C3	CON	SKEZENDUS.oracle.com	555-0000	Not Known	Not Known	Not Known
14	EDWARDR	SHIELDS	C3	CON	E SHIELDSUS.oracle.com	555-0001	Not Known	Not Known	Not Known
15	ANIL	FELONG	C3	CON	A FELOGNUUS.oracle.com	555-0001	Not Known	Not Known	Not Known
16	PAUL	WIECZOREK	C3	CON	P WIECZOREKUS.oracle.com	555-0001	Not Known	Not Known	Not Known
17	ALEXANDRO	NISHIOKA	C3	CON	ANISHIOKUS.oracle.com	555-0001	Not Known	Not Known	Not Known
18	JOVAN	JACOBSS	C3	CON	J JACOBSSUS.oracle.com	555-0001	Not Known	Not Known	Not Known

3. Data Masking

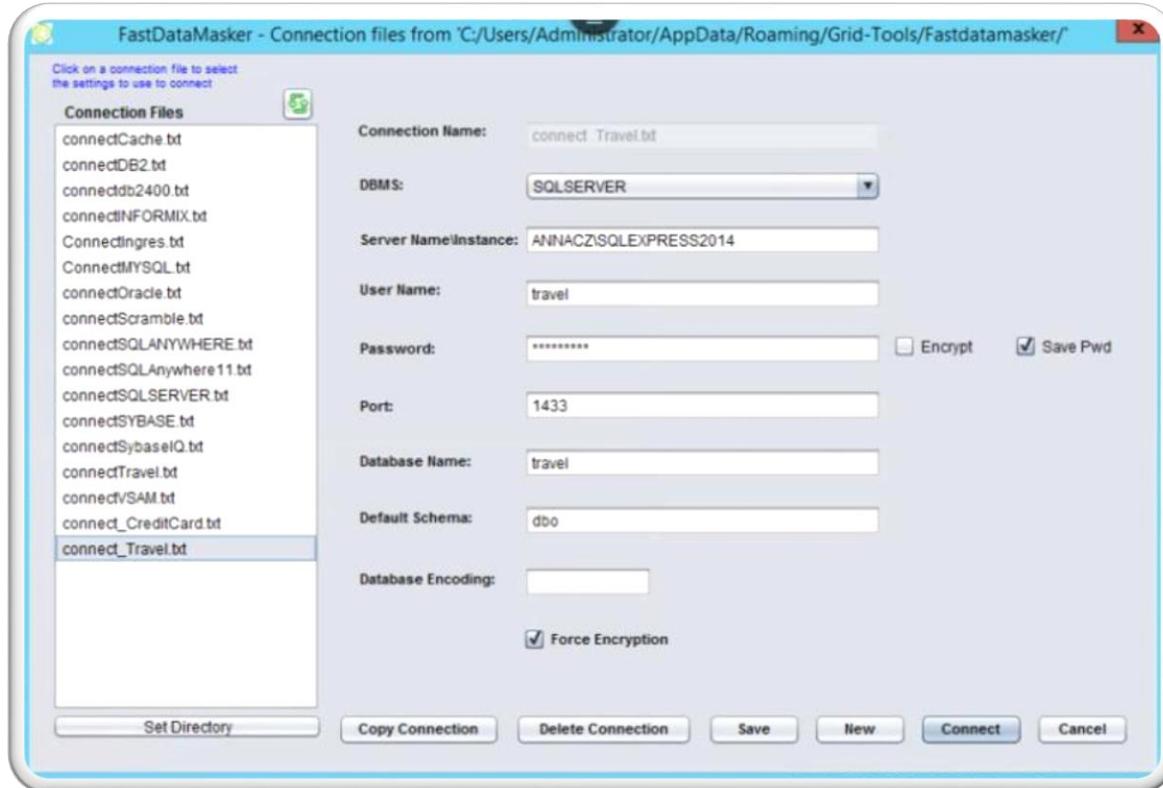
Secure millions of rows of data in minutes using automated data profiling and high performance masking engines. Masking of confidential data will be done here.

FASTDATA Masker App is used for Masking.

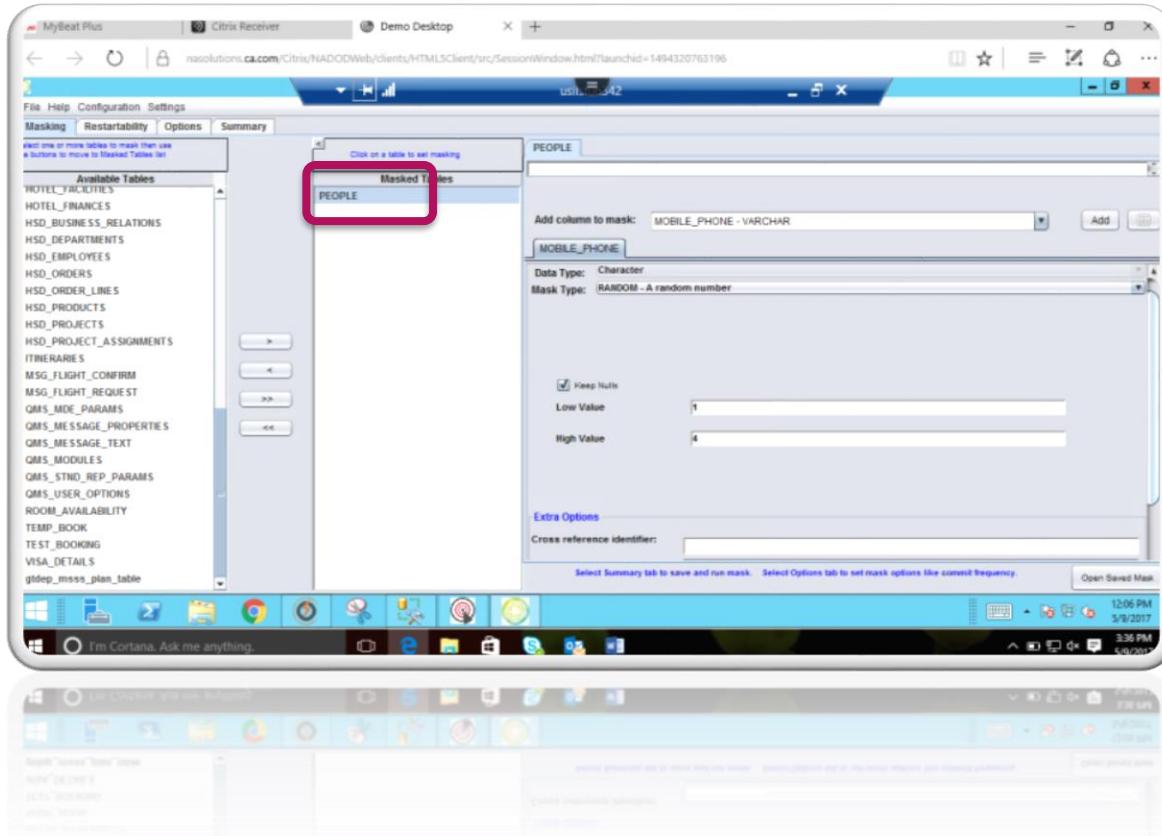
Launch FastDataMasker



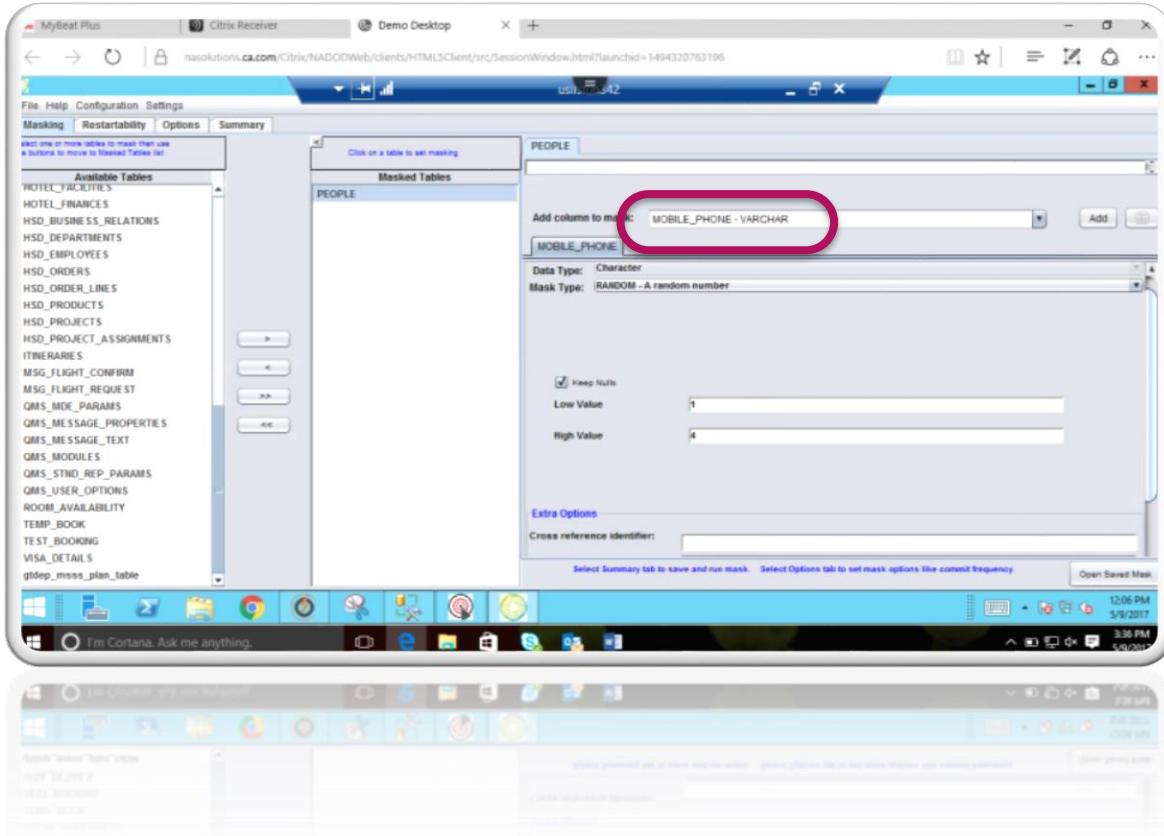
Click New button to create new connection by providing below details or select already existing connection to login. Uncheck Encrypt check box



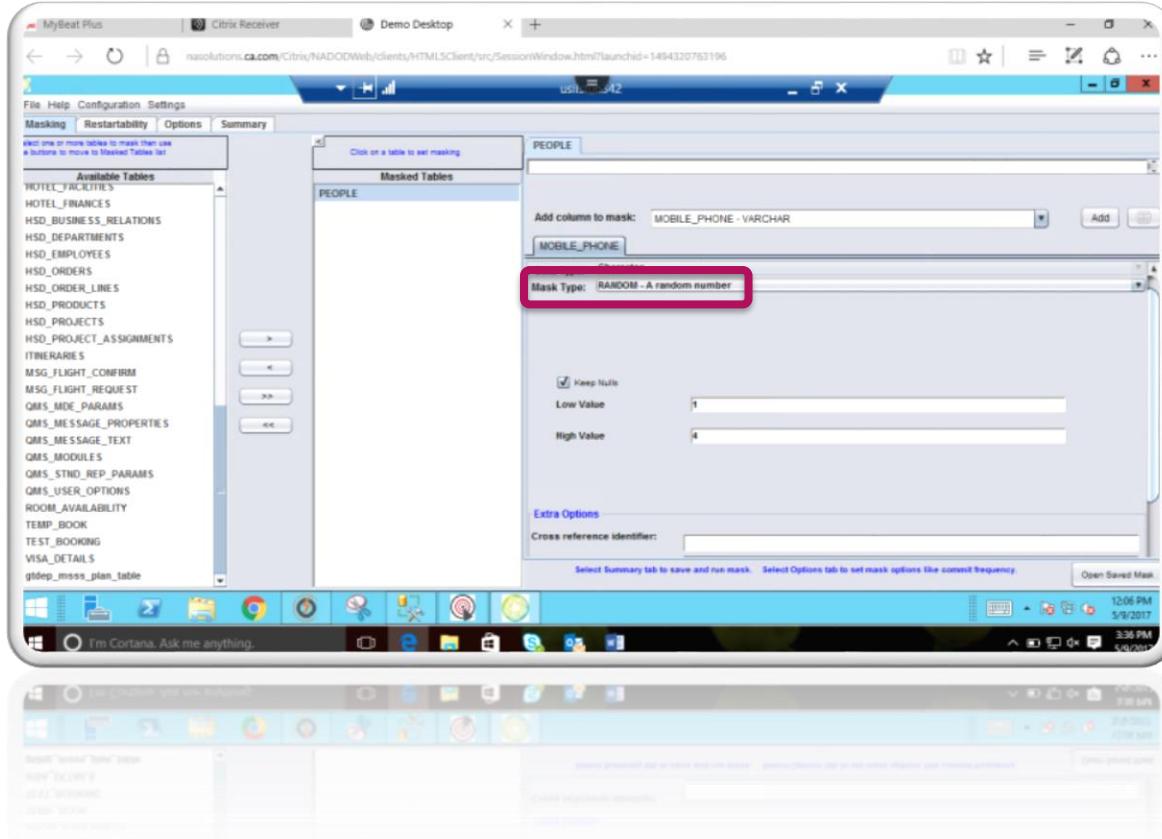
Select a Table from Available Tables list and add to Masked Tables list



Select Column name from Add Column Name to mask drop down list and click Add button



Select corresponding Mask Type



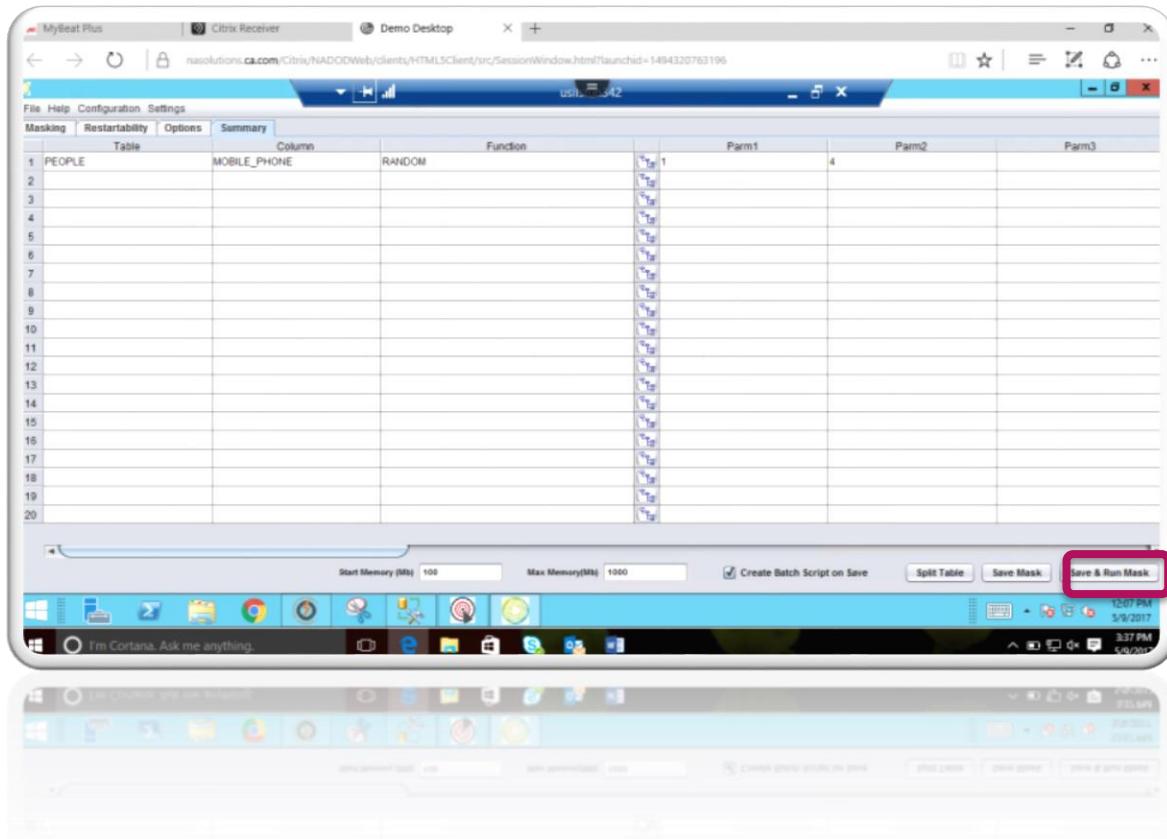
Navigate to Options tab and add values in the below respective rows

The screenshot shows the FastDataMasker software interface. The title bar reads "FastDataMasker Version 4.6.300 Build Date 07 December 2016". The menu bar includes File, Help, Configuration, Settings, Masking, Restartability, Options, and Summary. The Options tab is selected. A table lists various configuration options with their descriptions and current values. Several cells in the 'Value' column are highlighted with red boxes, indicating specific fields to be modified:

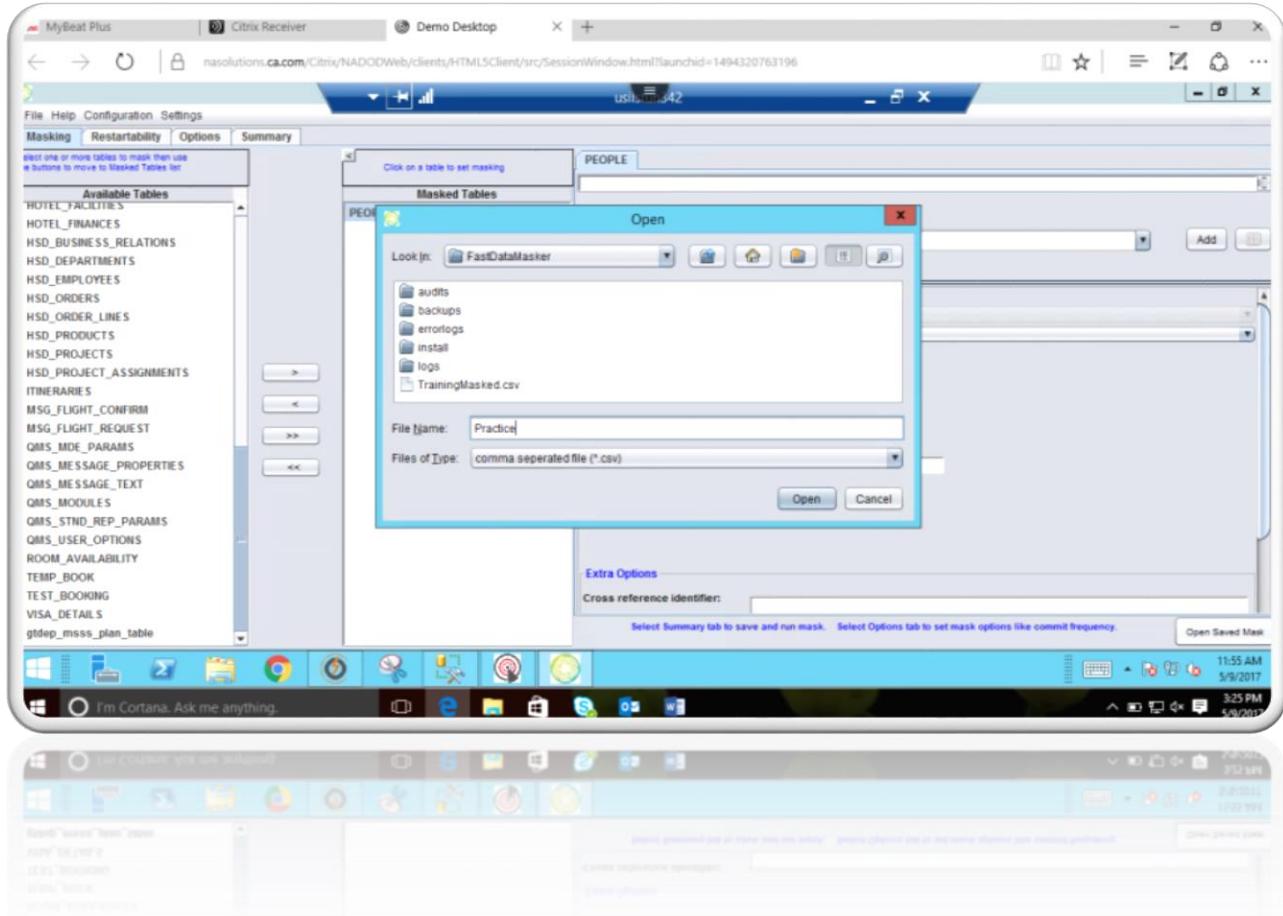
OPTION	DESCRIPTION	VALUE
1 AUDIT	Audit masking process possible values are ALL, SAMPLEnnn(sample every nth row) or ROWnnn(show the first nnn rows)	A11
2 AUDITDIR	Set the path to the audit file directory, the default is audits off the current directory	
3 AUDITEPASSWORD	set the encrypted password for the audit zip file	
4 AUDITFILE	myaudit.csv - the name of the file to store audit information	
5 AUDITONLYCOLUMNS	You can now mention the specific list of columns to be audited in the format table1.column1,table2.column2,table3.column3 etc	
6 AUDITPASSWORD	set the password for the audit zip file	
7 AUDITVALUES	N - do not show old and new values in the AUDIT file, the default is to show both	
8 AUDITZIP	zip and encrypt the audit csv file, values are winzip or zip for the program to use for the zip	T
9 BACKUPDIR	Set the path to the backup file directory, the default is backups off the current directory	
10 BADDATESTRING	for DOB, DOD on dates stored in character fields specify the date to replace the un parseable date with - for example 19900101	
11 BLANKSASHULLS	set to Y, for character data types if the column contains blanks to the column width, treat as a null for keepnulls in the masking	
12 CASEINSENSITIVESEED	RANDLOV1 search case insensitive	
13 CASEINSENSITIVEXREF	For cross reference - make comparisons case insensitive	
14 CDATE	20101224 - Override todays date for the purposes of date calculation functions, for example DOB	
15 COMMIT	1000 - commit after each 1000 rows for each table to be masked	
16 CROSSREFCONNECT	connectsramble bt - the name of the connection file to read and write cross reference data to	
17 CROSSREFTABLE	gtsrc_xref - the name of the table to read and write cross reference data to	
18 DB2BATCHUPDATE	N(Default) If Y use fast batched updates rather than standard 'update where current of cursor method'	
19 DBUPDATES	N - run in simulation mode, P - no updates output pre and post step sql for triggers and FK constraints	
20 DIAGLEVEL	0,1 or 2 debug info will be output according to value	

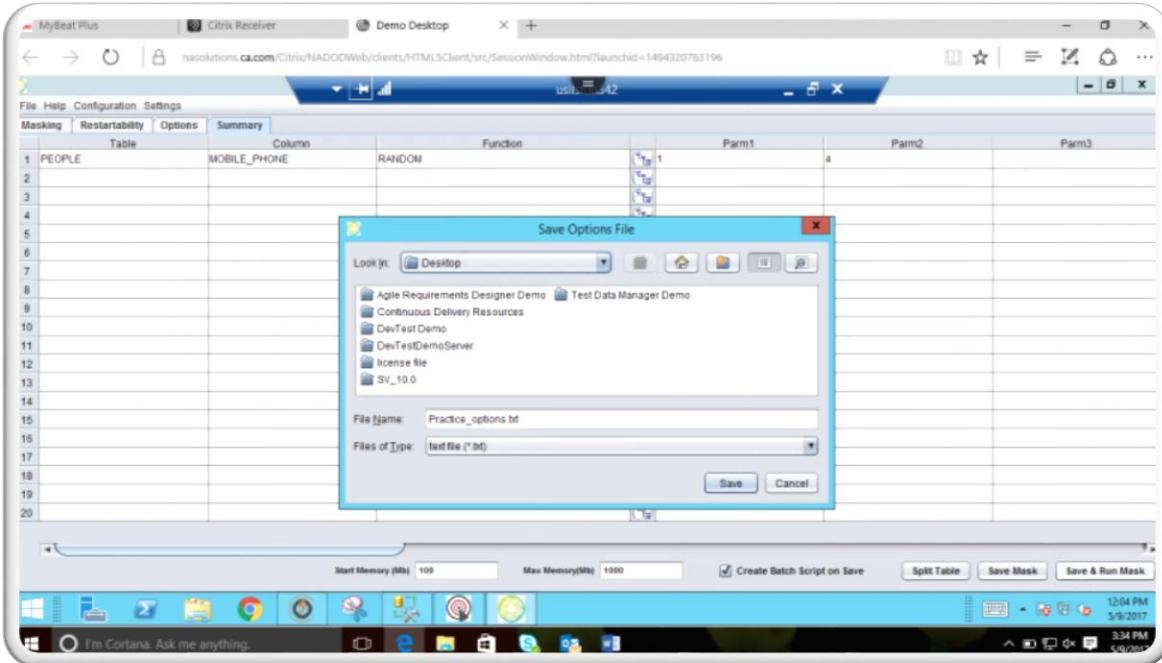
At the bottom right of the software window, there is a "Open Options" button. Below the software window, the Windows taskbar is visible, showing the Start button, Cortana search bar ("I'm Cortana. Ask me anything."), and various pinned icons like File Explorer, Edge, and File History.

Navigate to **Summary** Tab and click on Save & Run Mask button

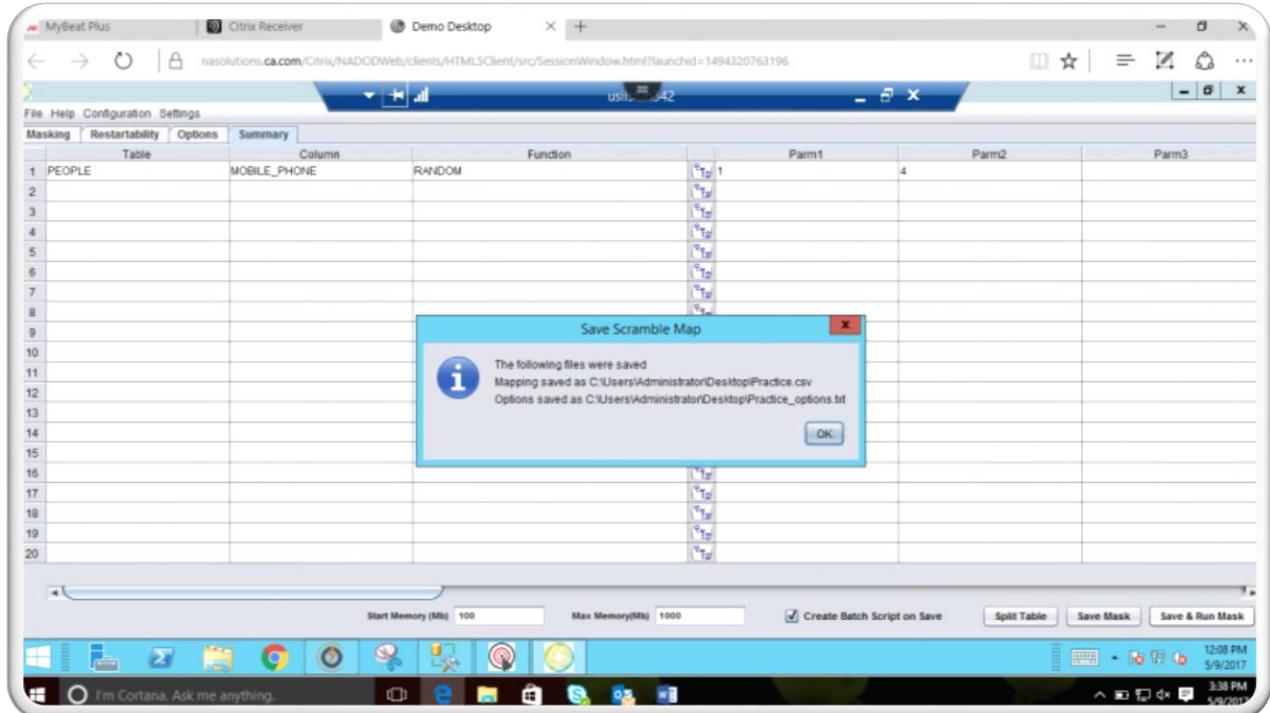


Specify the file name and Save the file

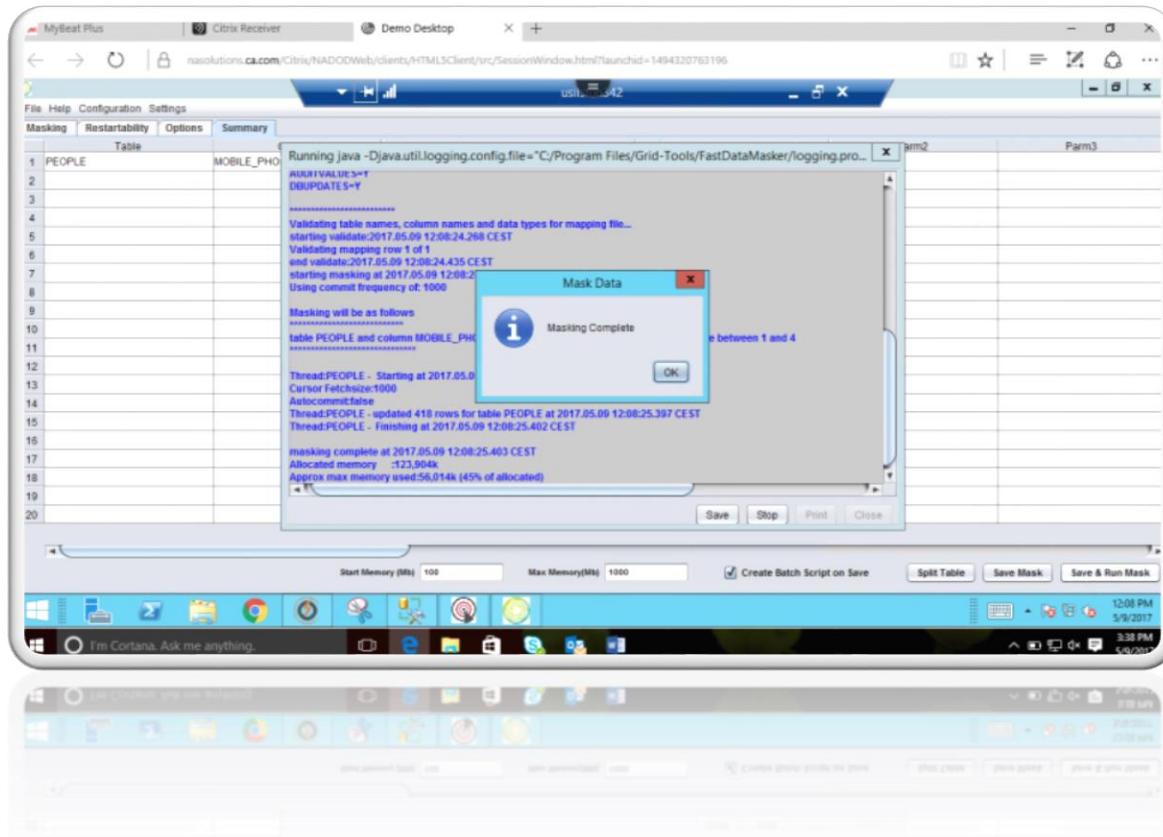




Masked file saved in selected file location



Masking completed message box



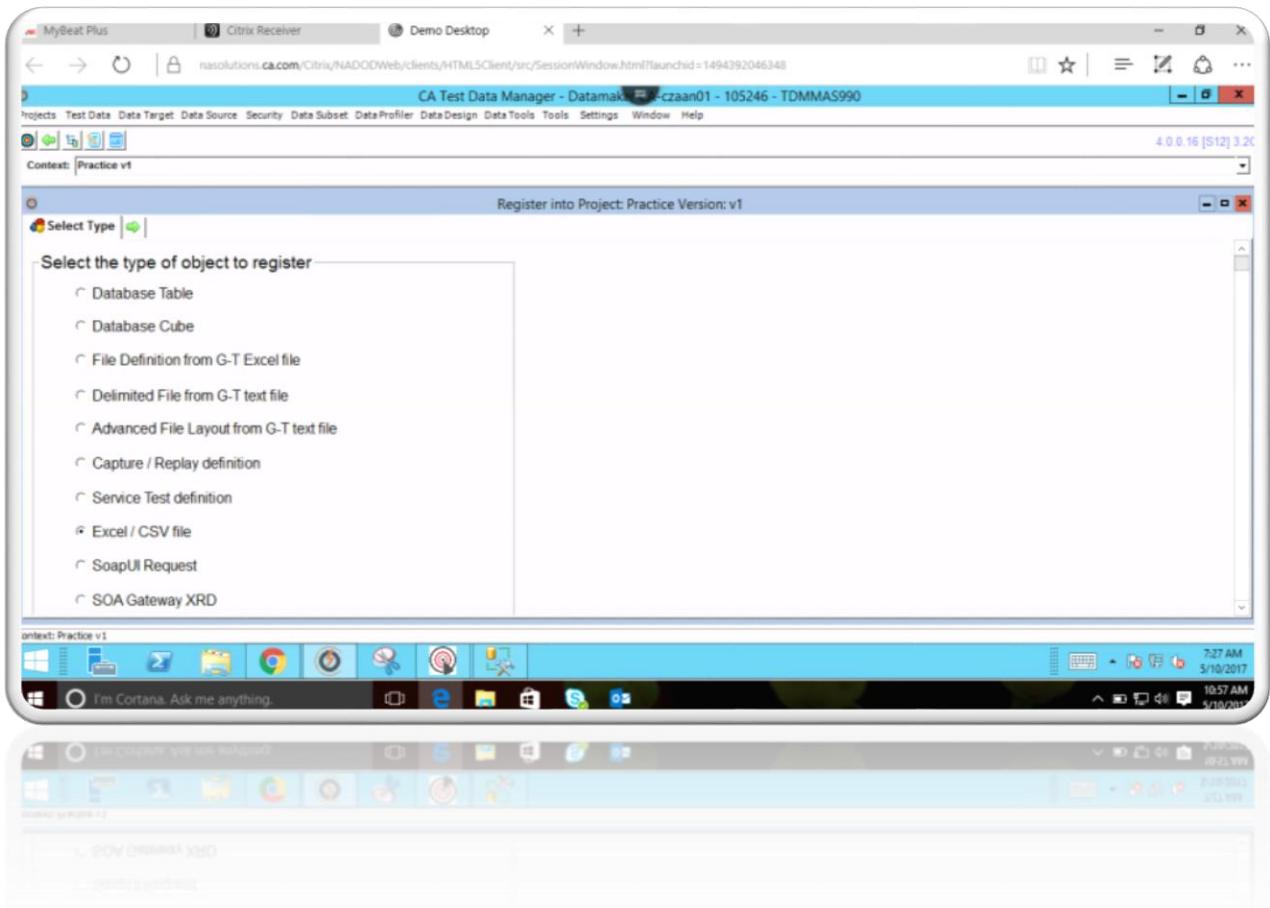
To view the masked file, navigate to following path:

C://user/administrator/appdata/roaming/gridtools/fastdatamasker/audits/(choose the file that is masked) or Just click windows -> All program -> %AppData%

4. Synthetic Data Generation

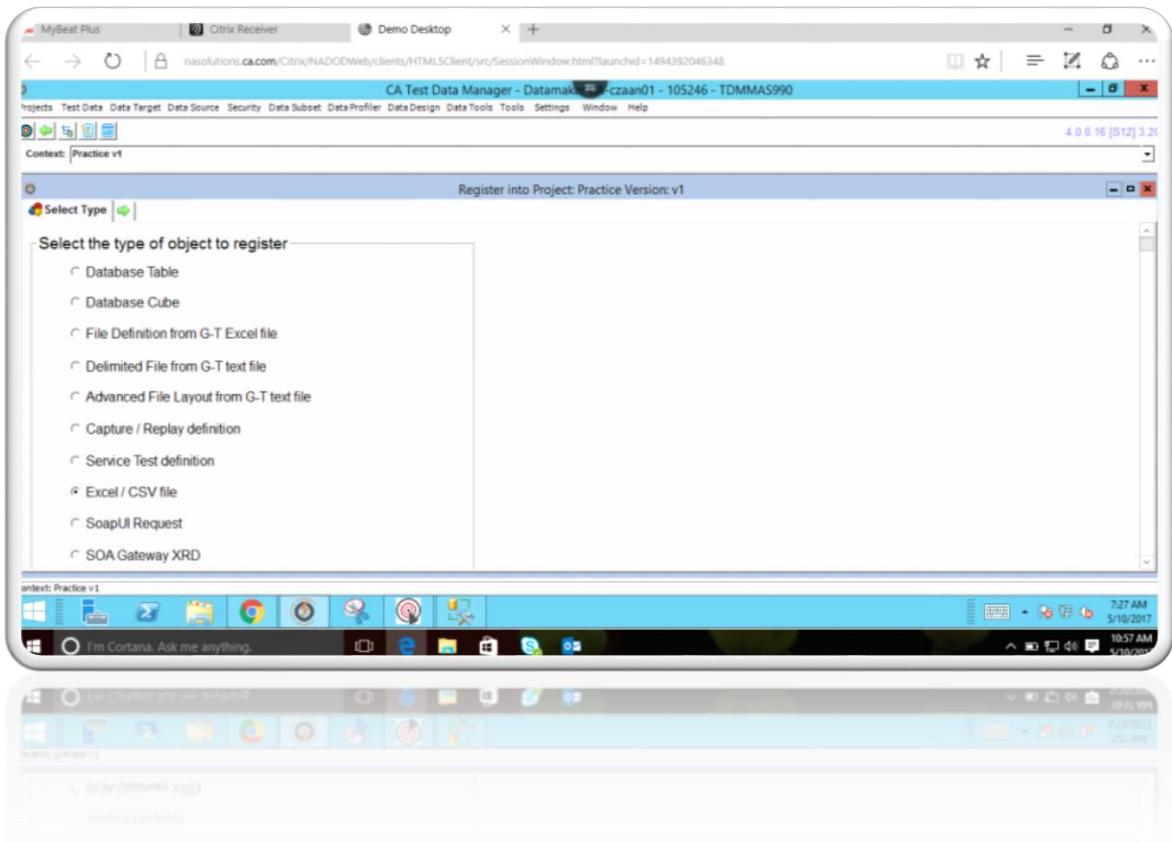
Creates rich synthetic data which covers 100% of possible tests. It creates large volumes of data for performance and load tests. Also It Improve the efficiency of your testing. **Datamaker** App is used.

Navigate to Datamaker app

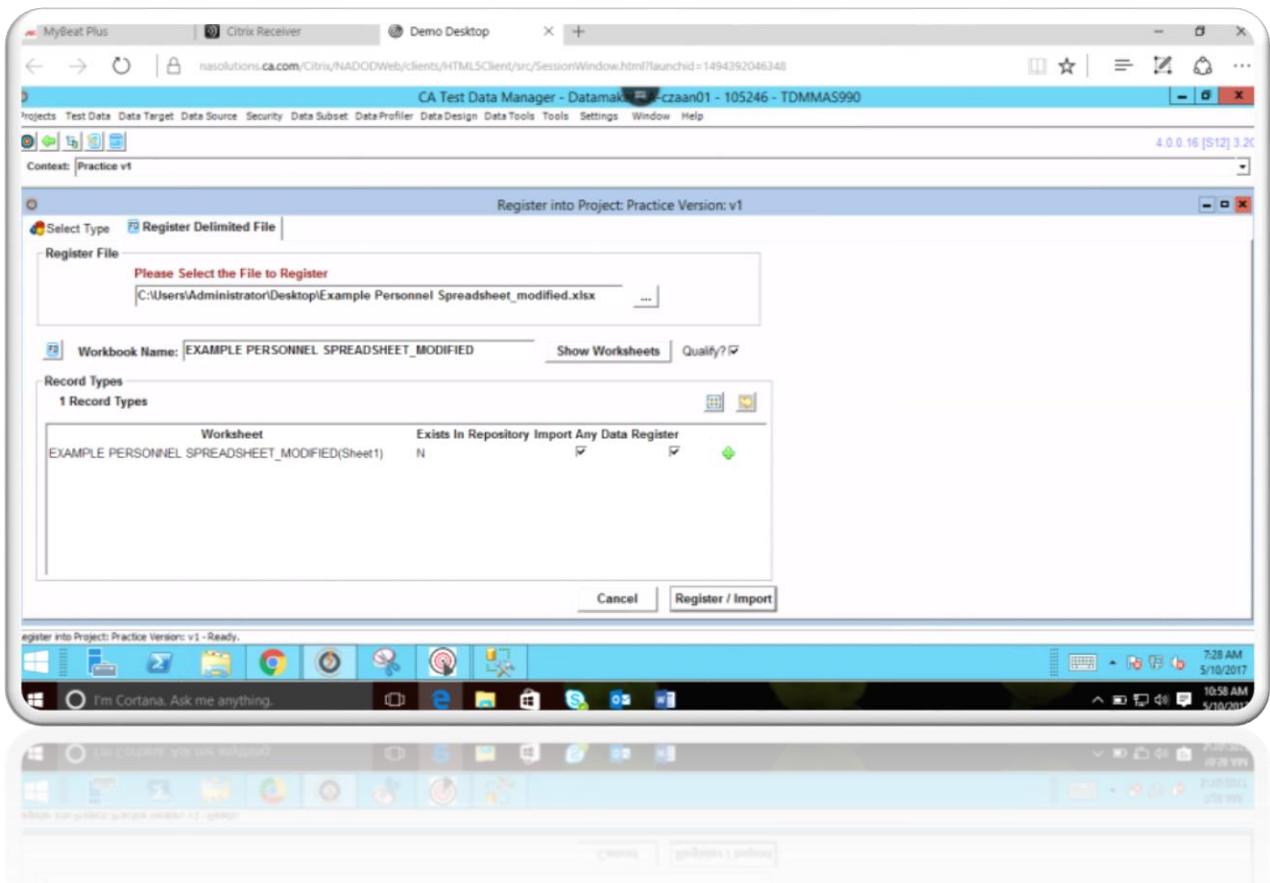


Select the project, click on version and create new data pool.

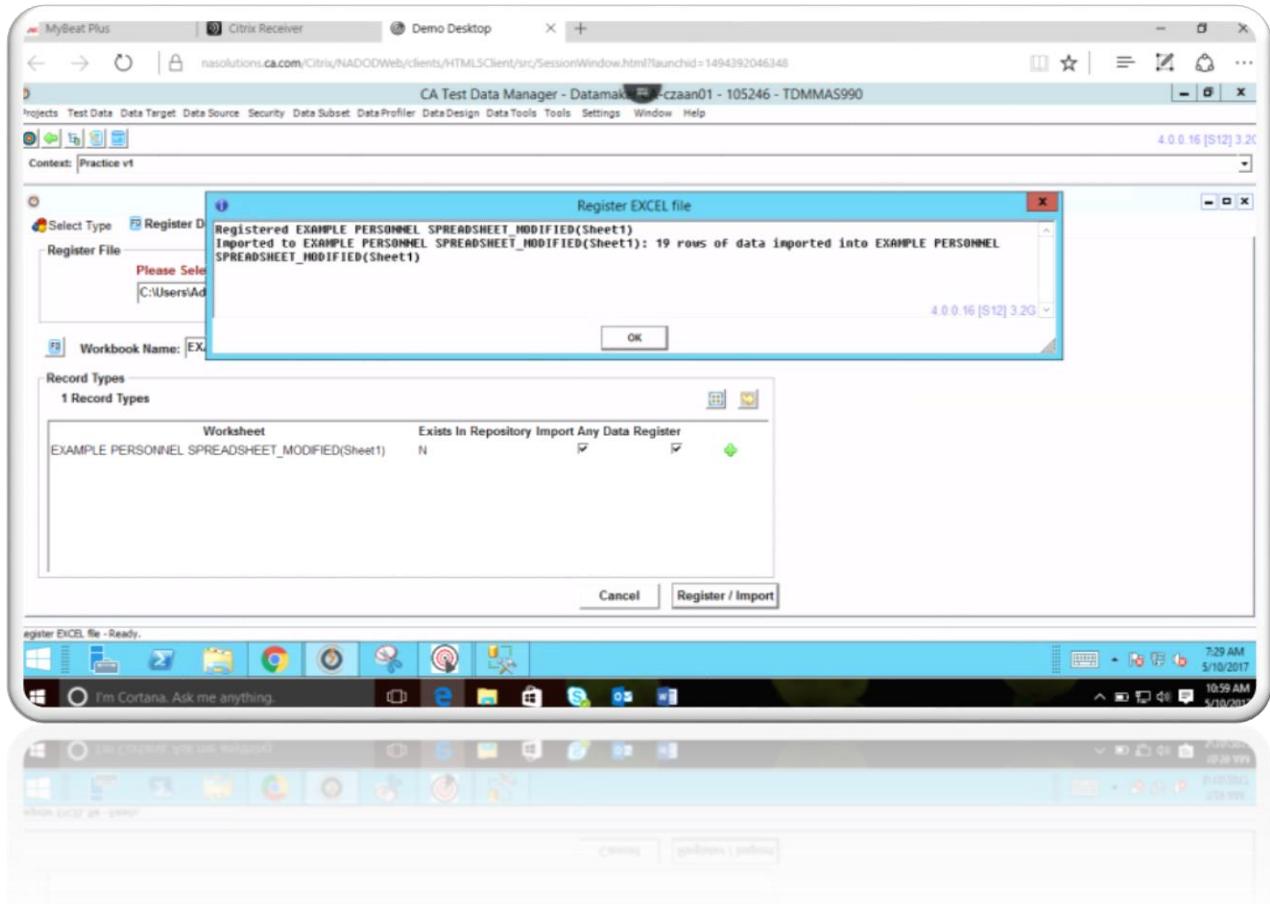
After creating data pool go to projects click on Register & select Excel/CSV file



Browse the excel file from the file location, check all the checkboxes then click on **Register / Import** button



Registered & Imported



Select Projects > Actions for Registered Objects & then click on go to data pool and double click on excel file

The screenshot shows the CA Test Data Manager application window. The title bar reads "CA Test Data Manager - Datamak - czaan01 - 105246 - TDMMAS990". The menu bar includes Projects, Test Data, Actions, Execute, Options, All Tabs, Data Target, Data Source, Security, Data Subset, Data Profiler, Data Design, Data Tools, Tools, Settings, Window, Help. The toolbar has icons for New, Open, Save, Print, etc. The status bar at the bottom right shows "4.0.0.16 [S12] 3.2C".

Registered Object Explorer:

- Includes
- Used Tables:
 - EXAMPLE_PERSONNEL_SPL
 - Related Columns
 - Related Tables
 - Related Columns
 - Related Tables
- Unused Tables:
 - ACCESS_CONTROLS
 - ACCOUNT_PERIODS
 - AIRCRAFT_LAYOUTS
 - AIRCRAFT_TYPES
 - AIRLINES
 - AIRPORTS
 - AVAILABLE_ROOM_TYPES
 - CAR_AVAILABILITY
 - CAR_BOOKINGS
 - CAR_HIRE_CHAINS
 - CAR_HIRE_DEFINES

Data Definition for Data Pool: exceldatapool in Practice v1 Data Group: practice datagrp Data Set: Pract dataset Data Pool: exceldatapool

EXAMPLE_PERSONNEL_SPREADSHEET_HOOFD (Sheet1) (ST)

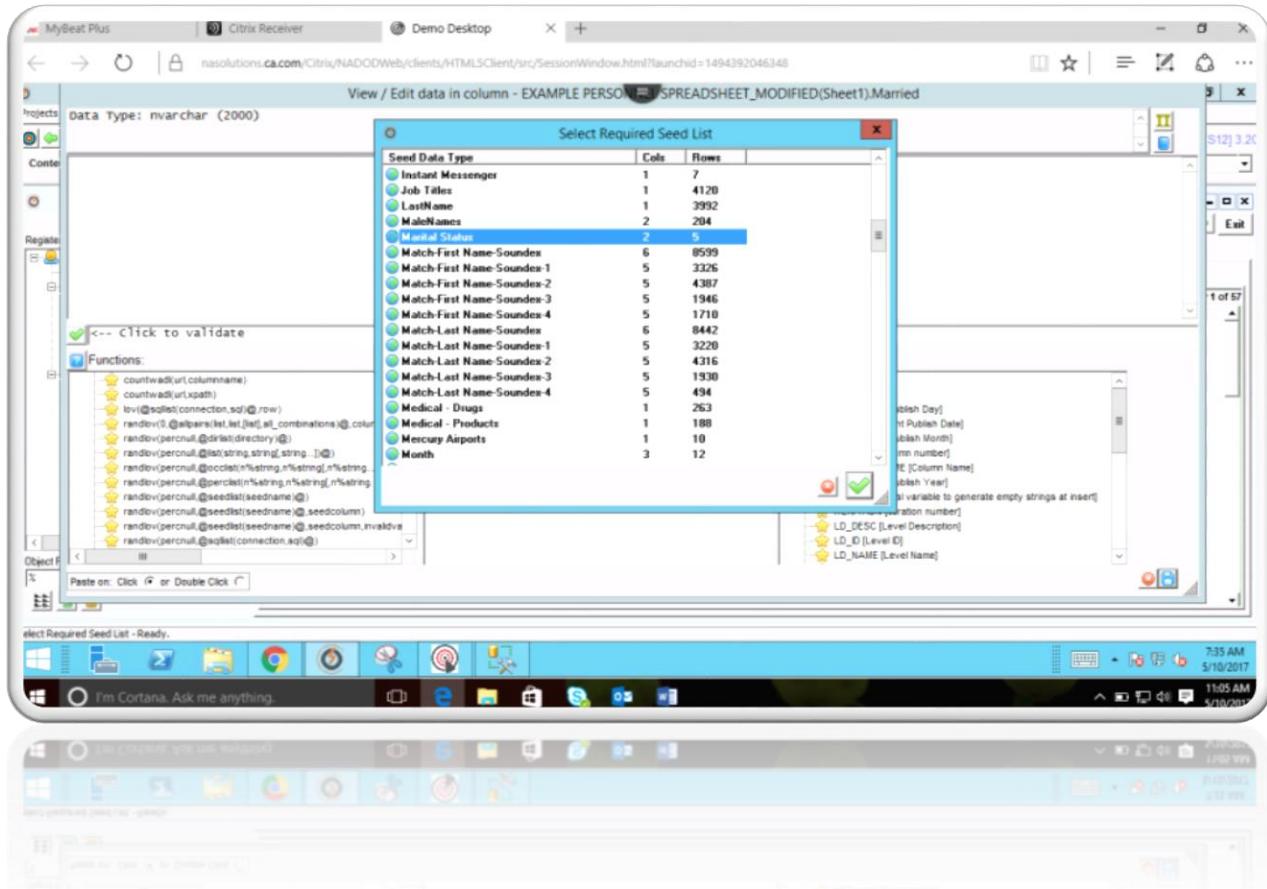
Row	Designation	First Name	Last Name	Gender	Date of Birth	Married	Income (,000)
1	HMiss	Cora	Moore	Female	12-Jul-1988		
1	HMiss	Cora	Moore	Female	12-Jul-1988		
1	HMiss	Cora	Moore	Female	12-Jul-1988		
2	Mr	Roger	HammerSmith	Male	15-Aug-1973		
2	Mr	Roger	HammerSmith	Male	15-Aug-1973		
2	Mr	Roger	HammerSmith	Male	15-Aug-1973		
3	Mrs	Sarah	Conner	Female	08-Dec-1963		
3	Mrs	Sarah	Conner	Female	08-Dec-1963		
3	Mrs	Sarah	Conner	Female	08-Dec-1963		
4	Mr	Yerrick	Brown	Male	12-Aug-1974		
4	Mr	Yerrick	Brown	Male	12-Aug-1974		
4	Mr	Yerrick	Brown	Male	12-Aug-1974		
5	HMiss	Corrinne	Sellers	Female	14-May-1976		
5	HMiss	Corrinne	Sellers	Female	14-May-1976		
5	HMiss	Corrinne	Sellers	Female	14-May-1976		
6	Mr	Frank	South	Male	04-Mar-1982		

Object Filter: %

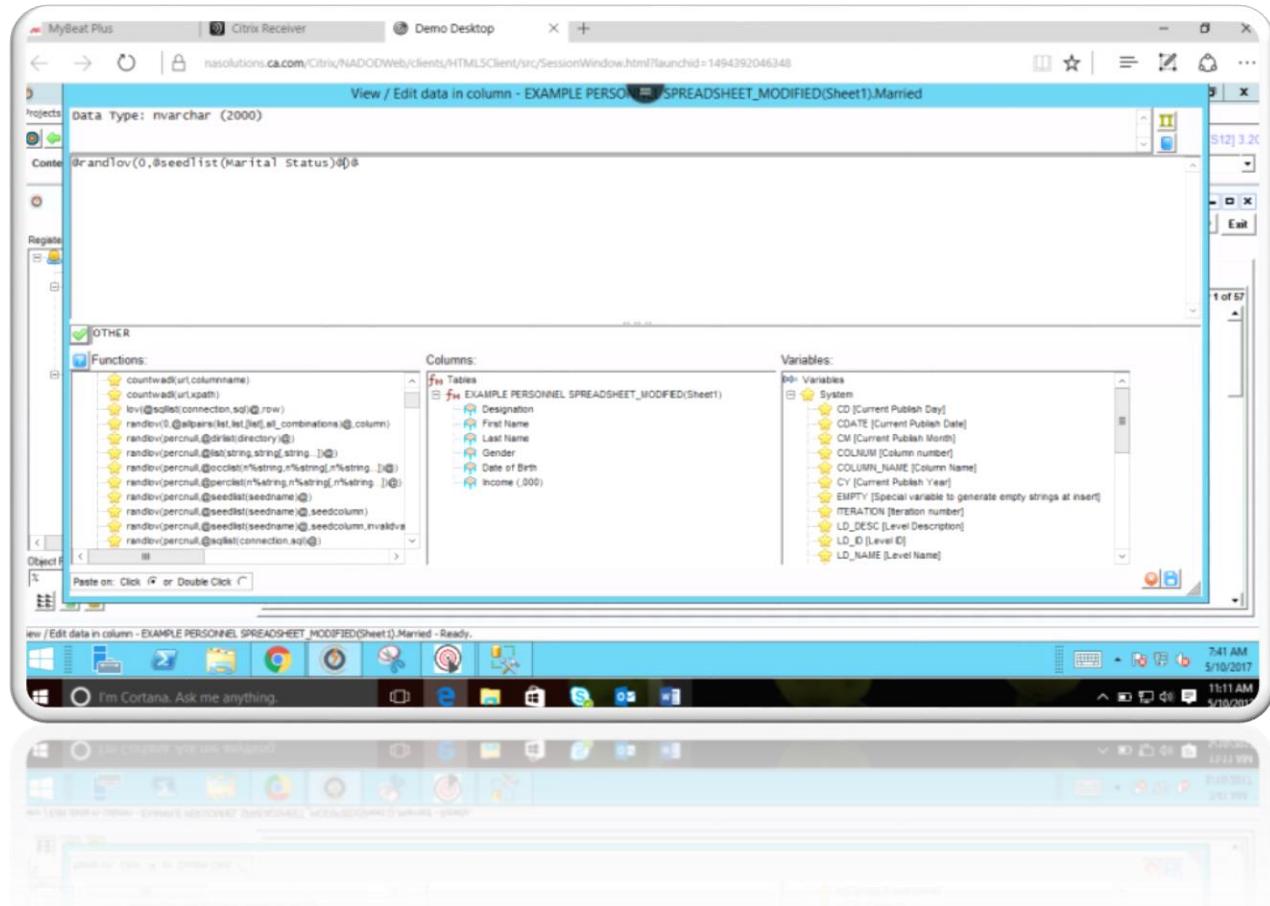
Lucida Console: Row 1 of 67

Windows Taskbar: Shows various pinned icons like File Explorer, Edge, Mail, Photos, and others. The system tray shows the date and time as 7:34 AM 5/10/2017.

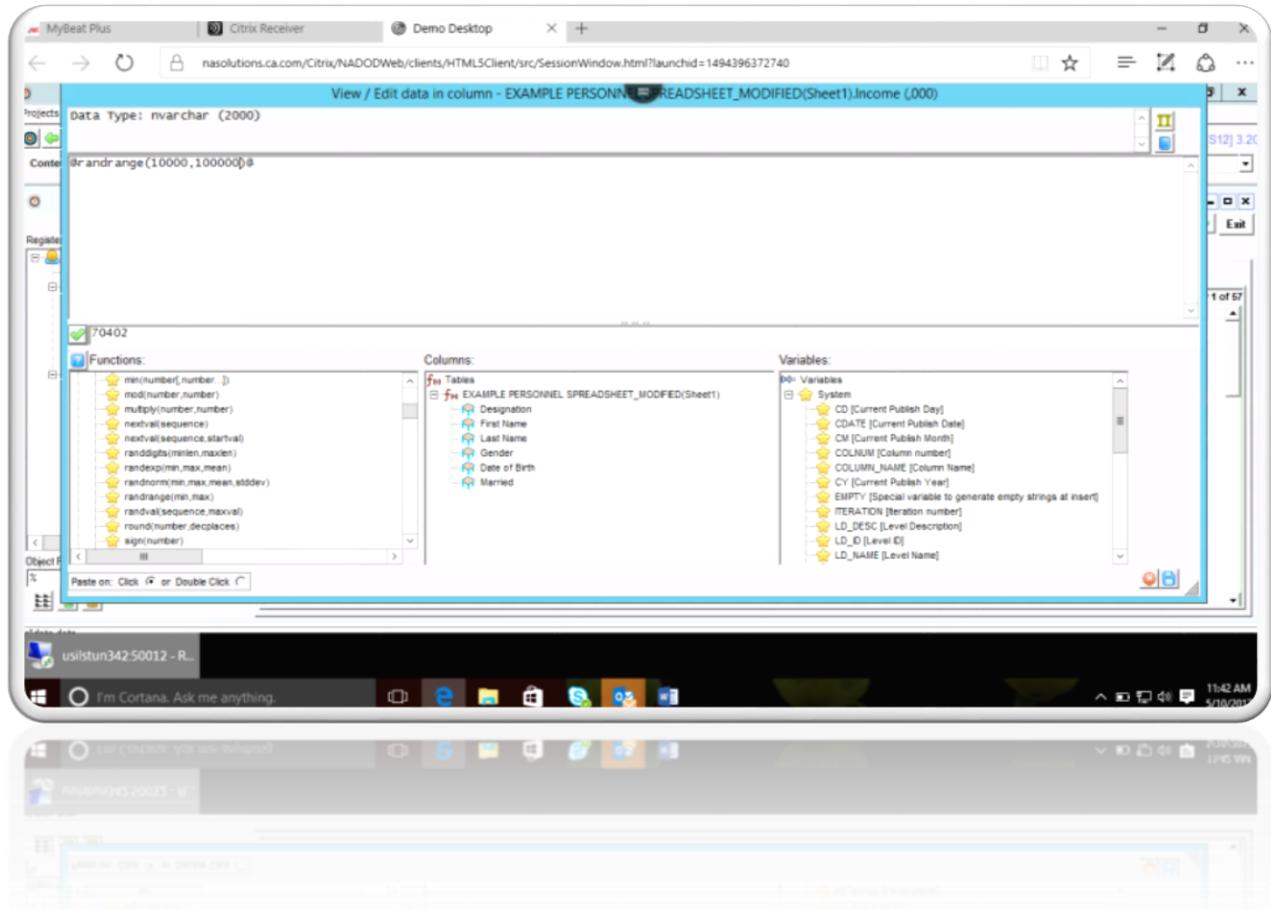
Double click on field select @randomseedname under listofvalues and then select required column need to be modified



Percentile value should be set to 0



Similarly, for Salary select Numeric function and randomrange (min, max)



After validating the function, click on Preview icon from window

The screenshot shows the CA Test Data Manager interface. The title bar reads "CA Test Data Manager - Datamak... - czaan01 - 105246 - TDMMAS990". The menu bar includes Projects, Test Data, Actions, Execute, Options, All Tabs, Data Target, Data Source, Security, Data Subset, Data Profiler, Data Design, Data Tools, Tools, Settings, Window, Help. The toolbar has icons for New, Open, Save, Print, etc. The status bar shows "4.0.0.16 [512] 3.2C". The main area is titled "Data Definition for Data Pool: exceldatapool in Practice v1 Data Group: practice datagrp Data Set: Pract dataset". It displays a table titled "EXAMPLE PERSONNEL_SPREADSHEET_MODIFIED(Sheet1) [57]" with 57 rows returned. The columns are Row, Designation, First Name, Last Name, Gender, Date of birth, Married, and Income (,000). The data includes various names like Cora Hoore, Roger Hammersmith, Sarah Conner, and Frank South, along with their respective details. The bottom of the screen shows a Windows taskbar with icons for File Explorer, Task View, Start, Taskbar settings, and system status.

Row	Designation	First Name	Last Name	Gender	Date of birth	Married	Income (,000)
1	Miss	Cora	Hoore	Female	12-Jul-1988	SEPARATED	49944
1	Miss	Cora	Hoore	Female	12-Jul-1988	MARRIED	66165
1	Miss	Cora	Hoore	Female	12-Jul-1988	MARRIED	50417
2	Mr	Roger	Hammersmith	Male	15-Aug-1973	MARRIED	80972
2	Mr	Roger	Hammersmith	Male	15-Aug-1973	SINGLE	60776
2	Mr	Roger	Hammersmith	Male	15-Aug-1973	MARRIED	93009
3	Mrs	Sarah	Conner	Female	08-Dec-1963	SEPARATED	40751
3	Mrs	Sarah	Conner	Female	08-Dec-1963	DIVORCED	31606
3	Mrs	Sarah	Conner	Female	08-Dec-1963	MARRIED	41643
4	Mr	Yerrick	Brown	Male	12-Aug-1974	DIVORCED	66062
4	Mr	Yerrick	Brown	Male	12-Aug-1974	OTHER	73554
4	Mr	Yerrick	Brown	Male	12-Aug-1974	SEPARATED	58963
5	Miss	Corrine	Sellers	Female	14-May-1976	SINGLE	77170
5	Miss	Corrine	Sellers	Female	14-May-1976	DIVORCED	65182
5	Miss	Corrine	Sellers	Female	14-May-1976	MARRIED	83492
6	Mr	Frank	South	Male	04-Mar-1982	MARRIED	38627

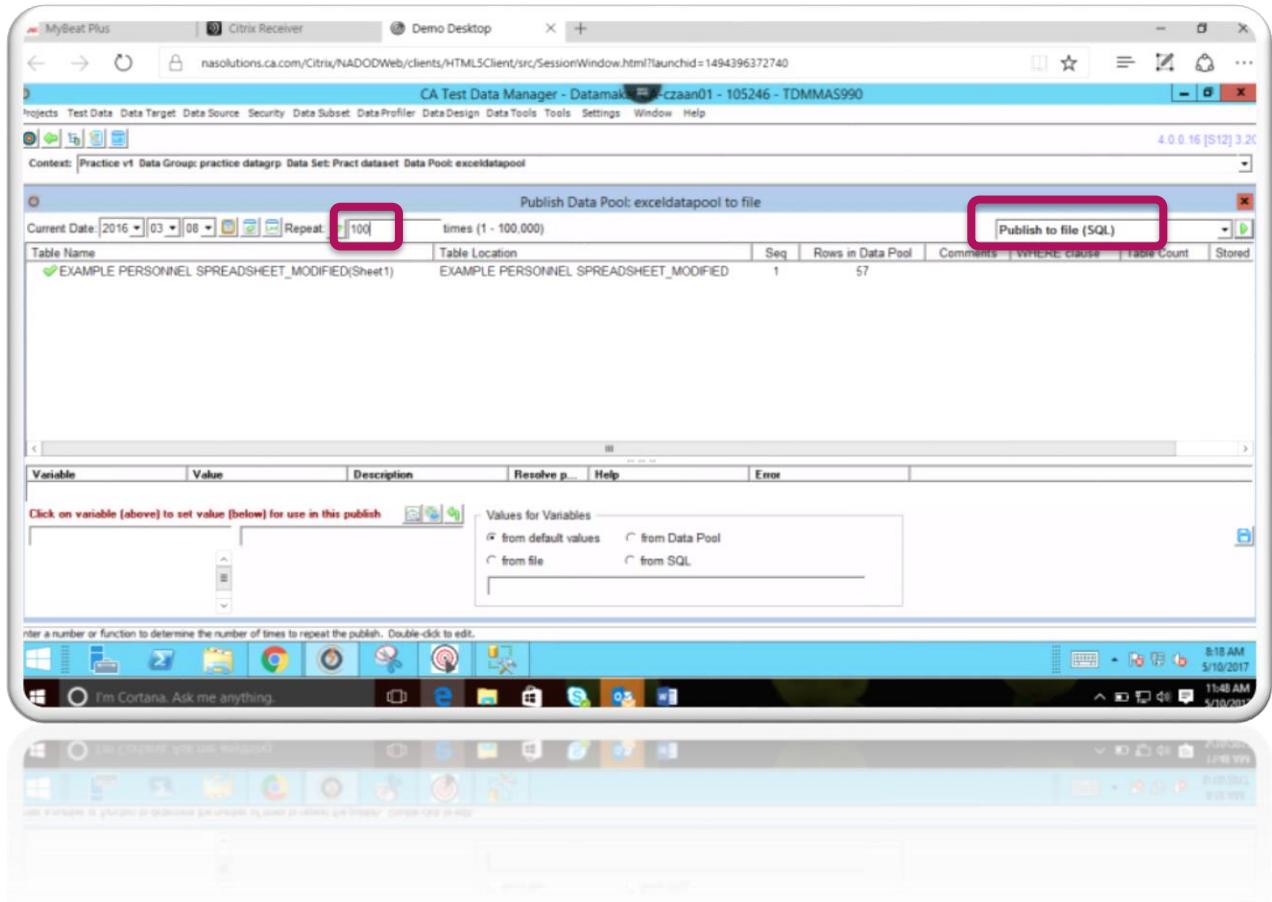
Exporting data:

Select **Publish to file** form the drop down list

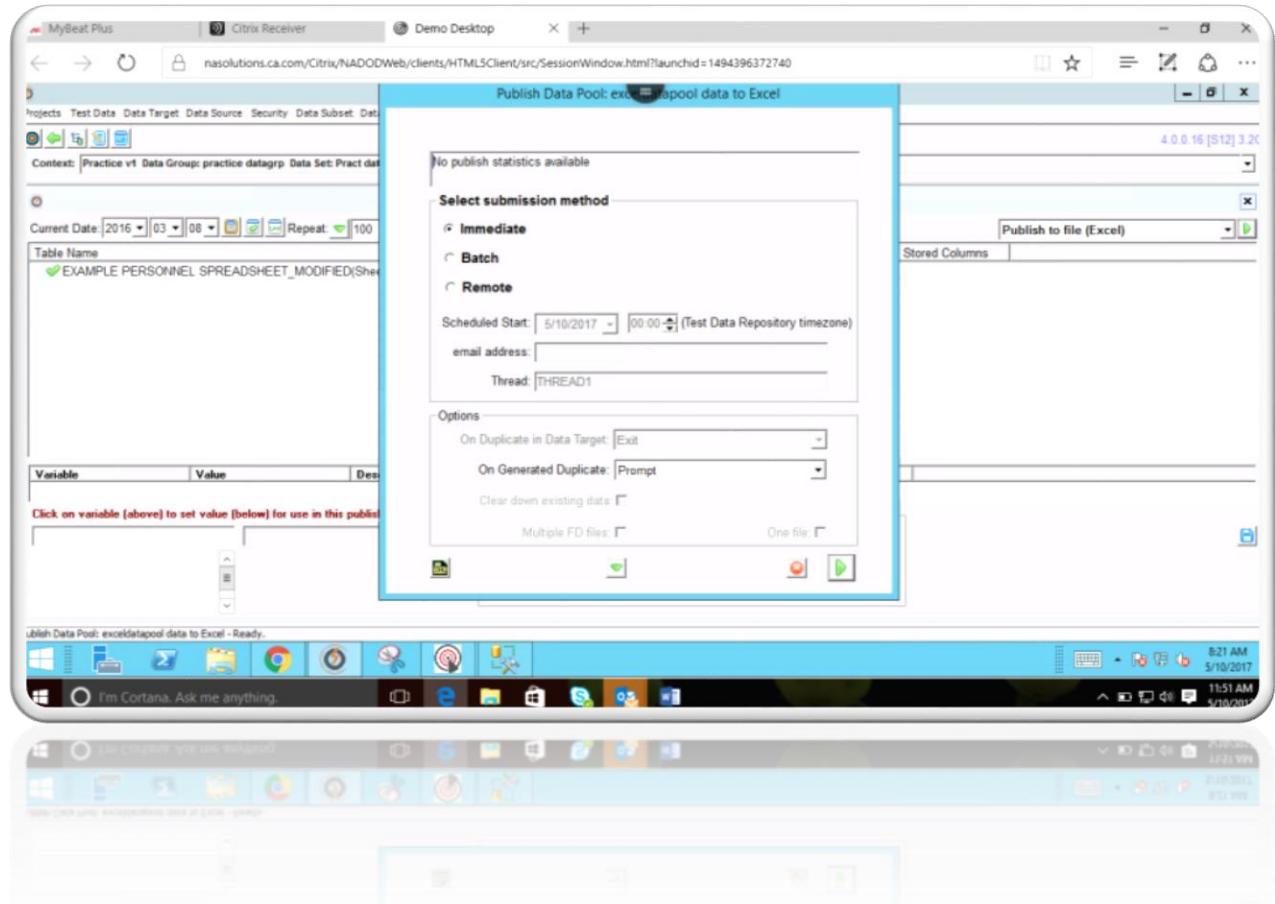
The screenshot shows the CA Test Data Manager interface. On the left, the Registered Object Explorer displays various database objects like 'Used Tables' and 'Unused Tables'. In the center, a grid shows data from the 'EXAMPLE PERSONNEL SPREADSHEET_MODIFIED(Sheet1) [57]' table. On the right, a context menu is open over the grid, with the 'Publish to file' option highlighted in blue and surrounded by a red box. The menu also includes other options like 'Open used tables' and 'Publish to Data Target'. The status bar at the bottom right shows the date and time as 5/16/2017 11:47 AM.

Row	Designation	First Name	Last Name	Gender	Date of Birth	Married	ID
1	Mrs	Cora	Moore	Female	12-Jul-1988	SEPARATED	49944
1	Mrs	Cora	Moore	Female	12-Jul-1988	MARRIED	562165
1	Mrs	Cora	Moore	Female	12-Jul-1988	MARRIED	50417
2	Mr	Roger	Hammersmith	Male	15-Aug-1973	MARRIED	50972
2	Mr	Roger	Hammersmith	Male	15-Aug-1973	SINGLE	50776
2	Mr	Roger	Hammersmith	Male	15-Aug-1973	MARRIED	53009
3	Mrs	Sarah	Conner	Female	08-Dec-1963	SEPARATED	40753
3	Mrs	Sarah	Conner	Female	08-Dec-1963	DIVORCED	21609
3	Mrs	Sarah	Conner	Female	08-Dec-1963	MARRIED	41643
4	Mr	Verrick	Brown	Male	12-Aug-1974	DIVORCED	54062
4	Mr	Verrick	Brown	Male	12-Aug-1974	OTHER	73514
4	Mr	Verrick	Brown	Male	12-Aug-1974	SEPARATED	58963
5	Miss	Corinne	Sellers	Female	14-May-1976	SINGLE	77170
5	Miss	Corinne	Sellers	Female	14-May-1976	DIVORCED	65982
5	Miss	Corinne	Sellers	Female	14-May-1976	MARRIED	83492
6	Mr	Frank	South	Male	04-Mar-1982	MARRIED	38627

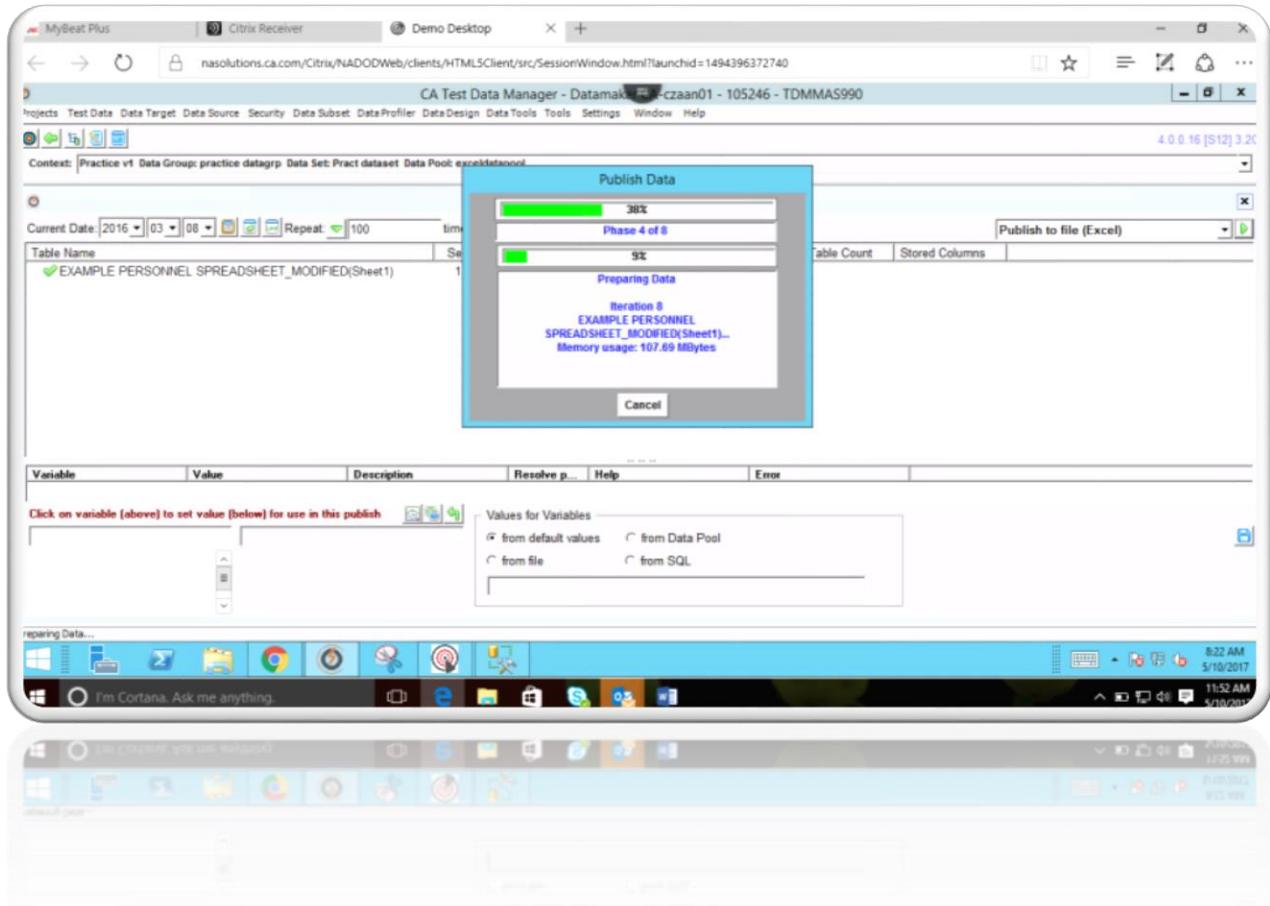
If required to generate more than 1 record enter the value in **Repeat** and select **Publish to file** from dropdown list and run



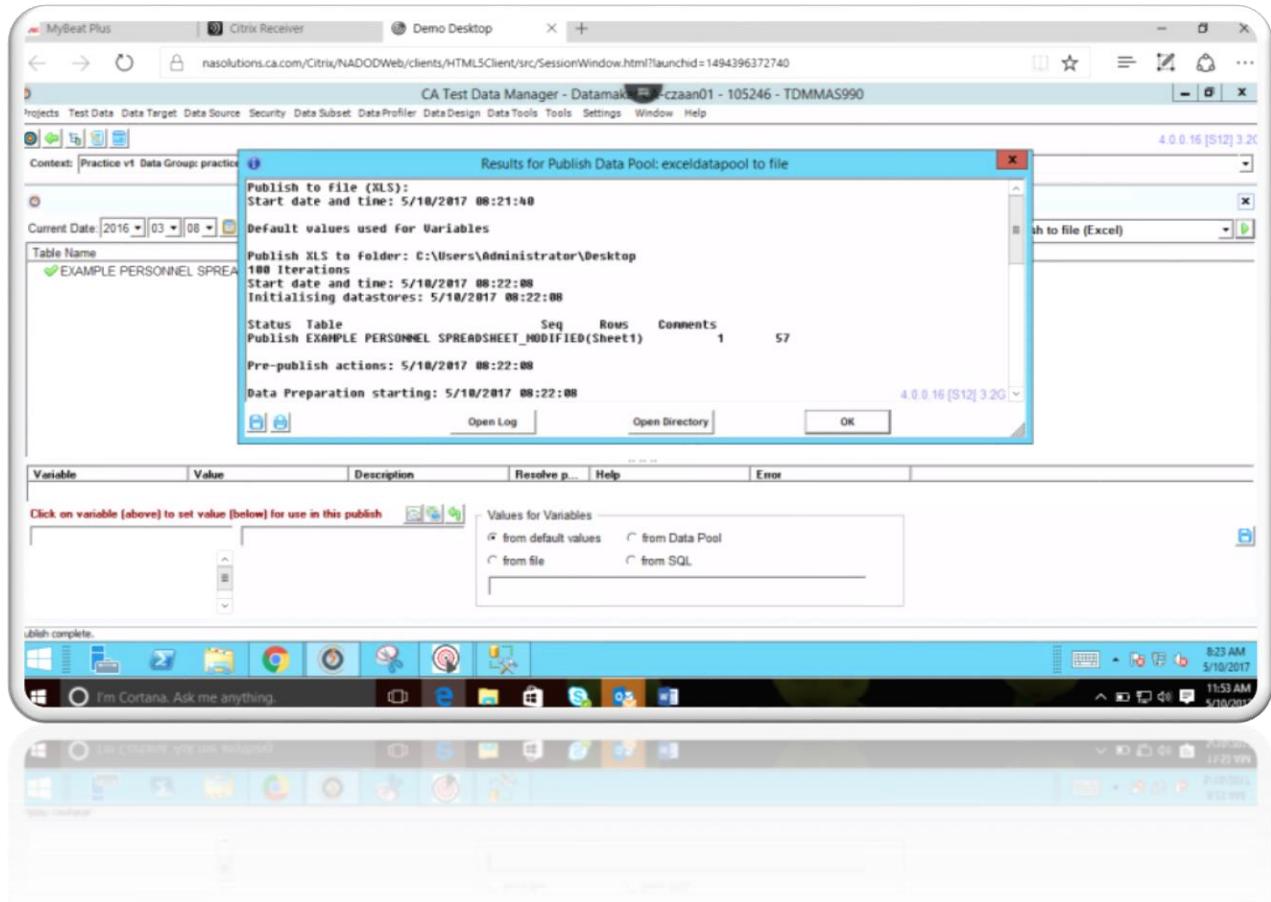
Select appropriately and run



Choose the folder and run



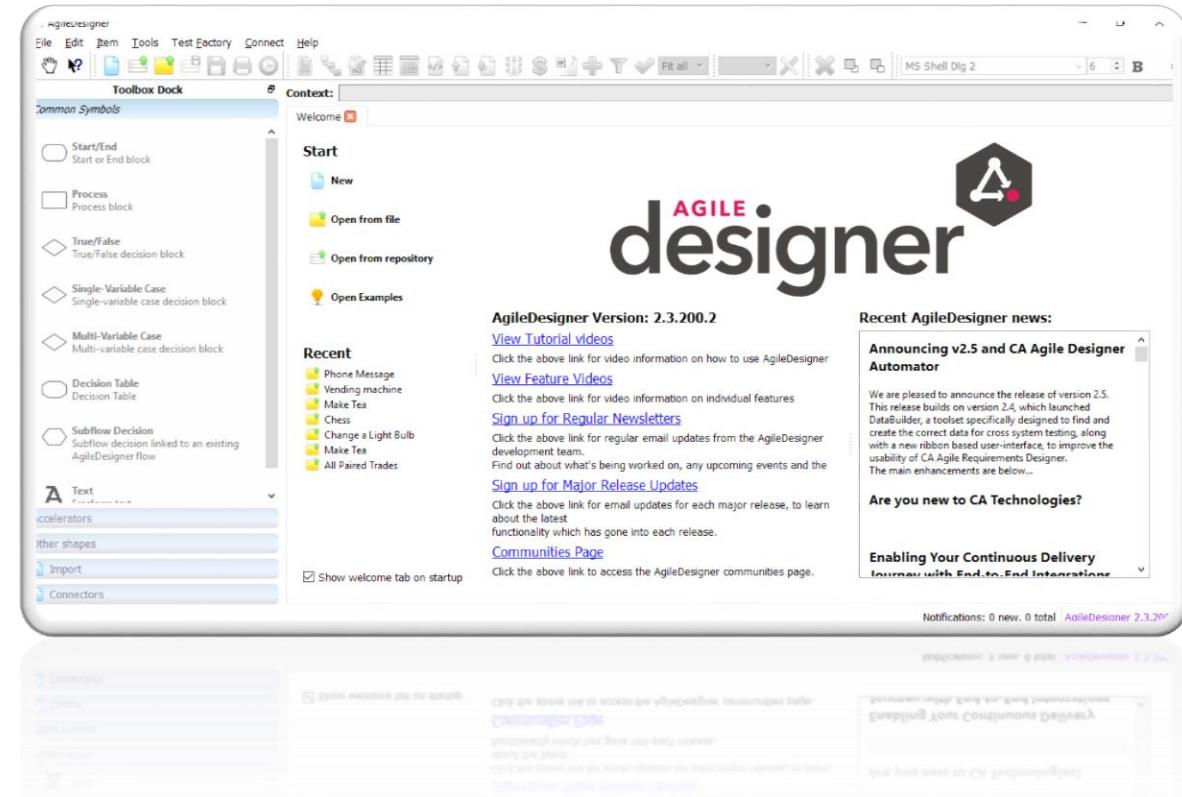
Published data



5. Agile Requirements Designer

CA Agile Requirements Designer is an end-to-end requirements gathering, test automation and test case design tool which drastically reduces manual testing effort and enables organizations to deliver quality software to market earlier and at less cost

Home page



Fill these properties and click Next

? X

←  Properties of new Flow Chart

General Properties

Please fill these properties in before proceeding

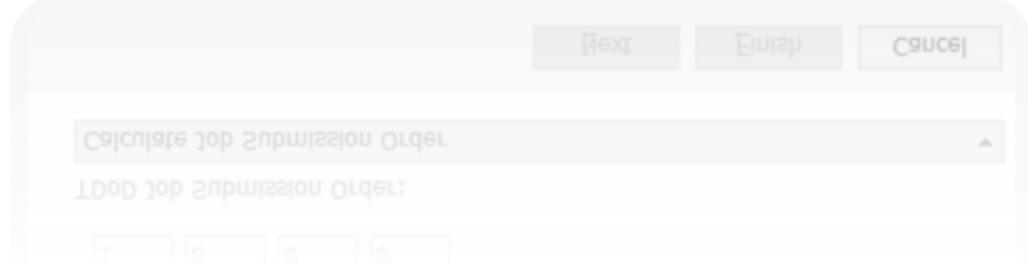
Title*:

Description:

Author:

Version: 1 0 0 0

TDoD Job Submission Order:



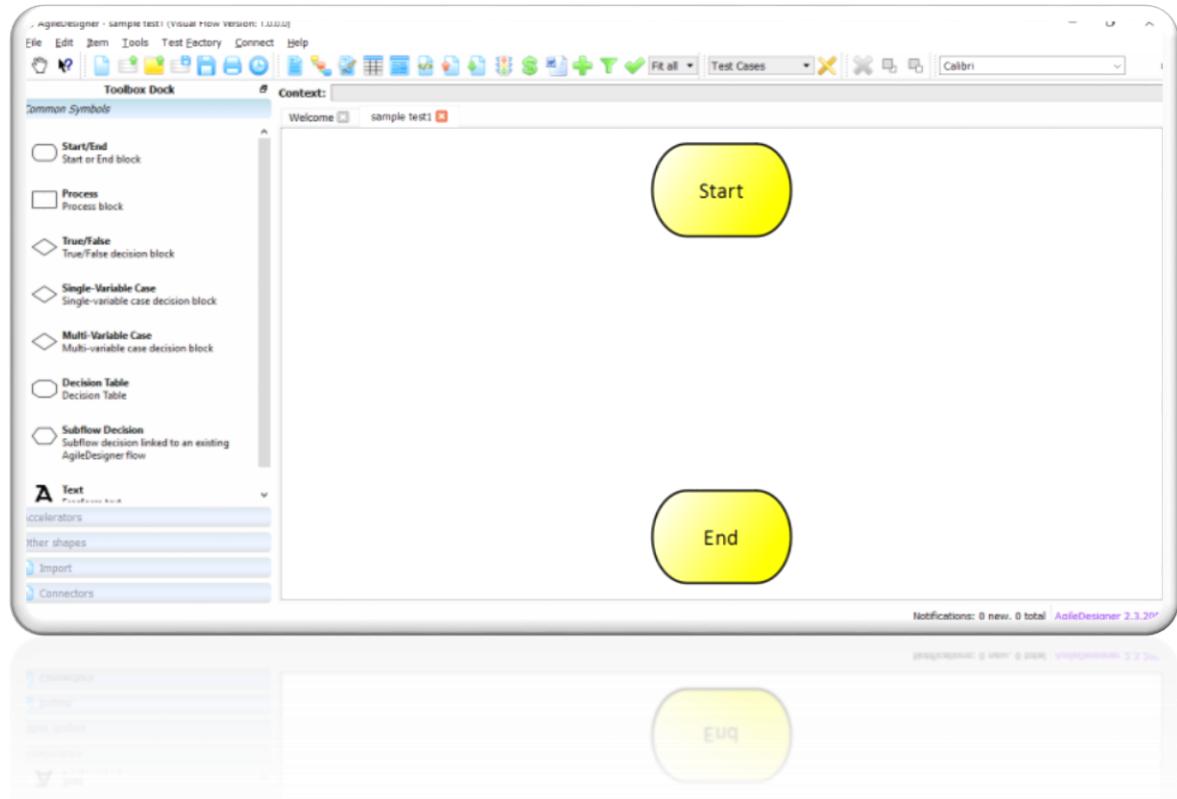
Fill Flow Chart Details as well

The screenshot shows a software interface for creating a new flow chart. At the top, there's a navigation bar with a back arrow, a properties icon, and the text "Properties of new Flow Chart". Below this is a section titled "Details". Under "Flow chart Details", there are several input fields:

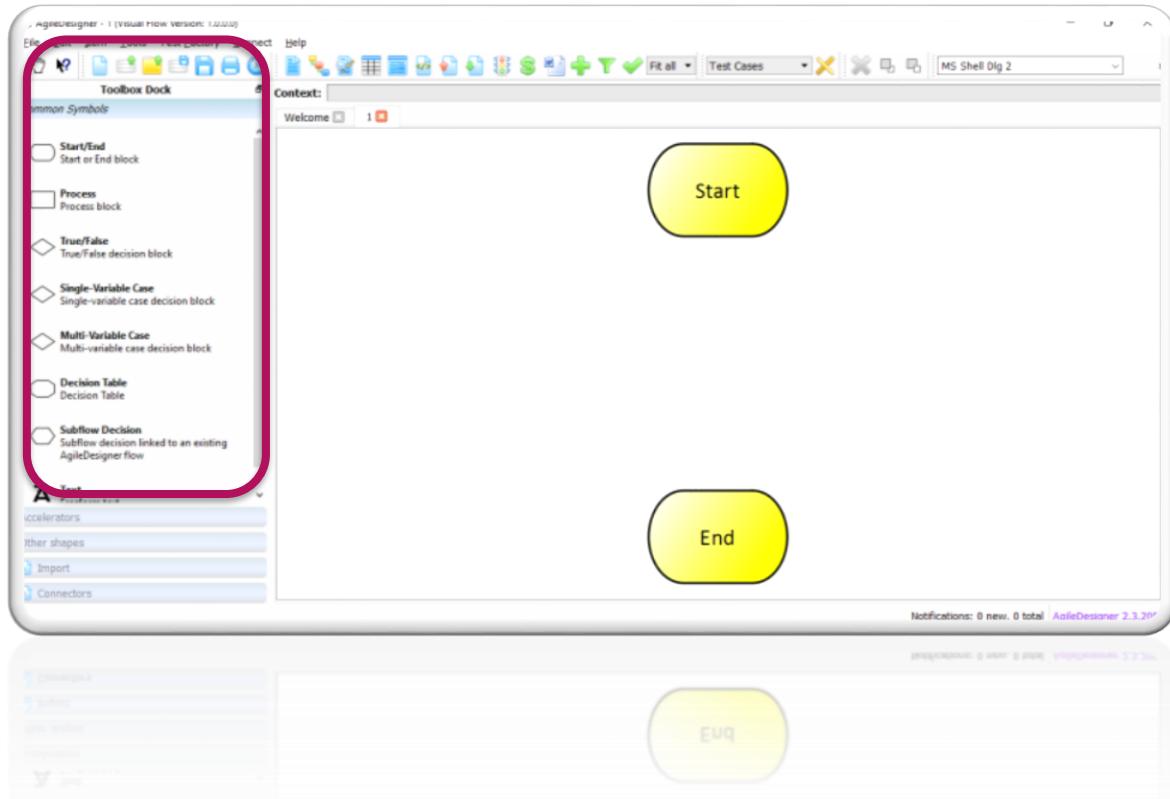
- Documentation: A dropdown menu with an upward and downward arrow icon.
- Source Code: An empty text input field.
- Environment: An empty text input field.
- Test Plan: An empty text input field.
- Audit: An empty text input field.
- Jira: An empty text input field.
- ALM: An empty text input field.
- Requirement Details: An empty text input field.

At the bottom of the dialog are three buttons: "Next", "Finish", and "Cancel".

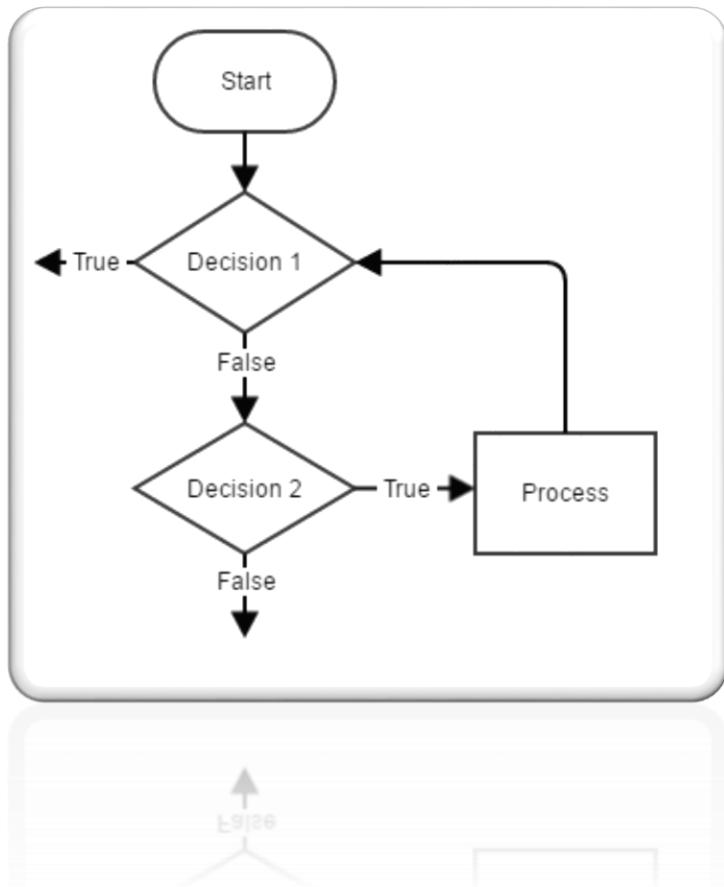
New Visual Flow created



Select necessary flowchart symbols accordingly from ToolBox dock



Sample Workflow:



6. Useful Links

Make sure to register in Partner Portal in www.ca.com to get to know about trainings, demos and updates on TDM

 **TDM:**

- <https://docops.ca.com/ca-test-data-manager/3-6/en/getting-started>
- <https://docops.ca.com/ca-test-data-manager/4-1/en>

 **TDM Demo Guide:**

- file:///D:/Sathya/TDM/TDM_DoD_Demo_Guide.pdf



TDM_DoD_Demo_Guide.pdf

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 **ARD:**

- <https://docops.ca.com/ca-agile-requirements-designer/2-1/en/getting-started>
- <https://www.ca.com/content/dam/ca/us/files/data-sheet/ca-agile-requirements-designer.pdf>