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## Access the SAS Software - SAS Viya for Learners 4

### Pre-requirements:

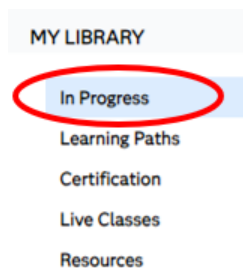
1. You created a SAS User Profile with your **university email address**  
(<https://www.sas.com/profile/ui/#/create>)
2. You enrolled to SAS Viya for Learners  
([https://www.sas.com/en\\_us/software/viya-for-learners.html](https://www.sas.com/en_us/software/viya-for-learners.html))

**Step 1:** Navigate to the following URL and select **My Training** and use your Username & Password (defined by you, when you created a SAS User Profile)

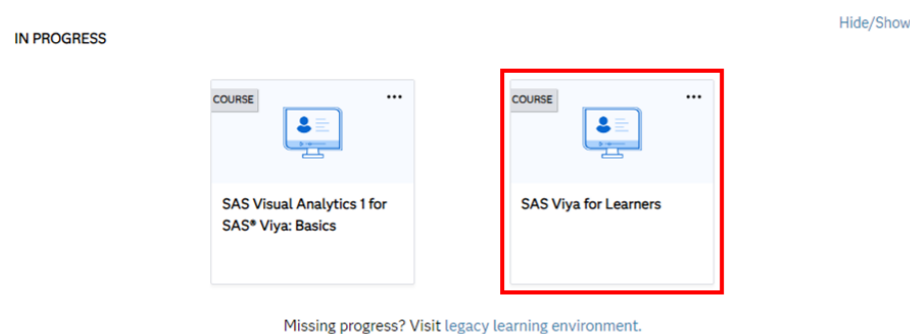
<https://learn.sas.com>



**Step 2:** Navigate to **MY LIBRARY** on the left-hand side and select **In Progress**



**Step 3:** In the middle of the screen, you see all courses you are enrolled. Select **SAS Viya for Learners**



**Step 4:** Select **Launch Software** and the **SAS Drive** application will open

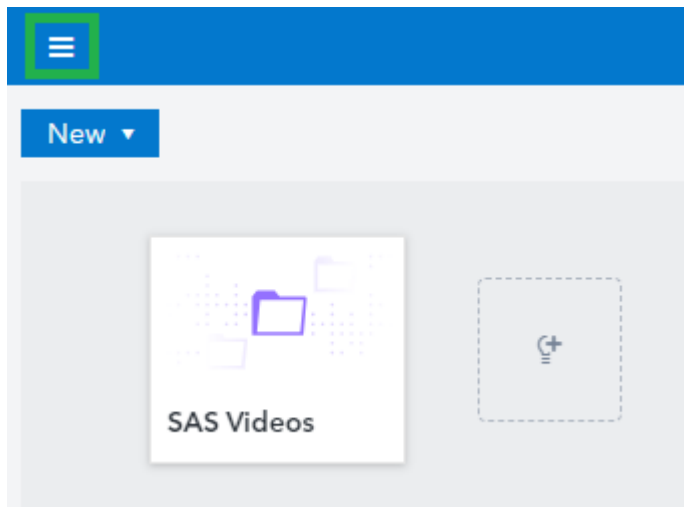
SAS Viya for Learners 4



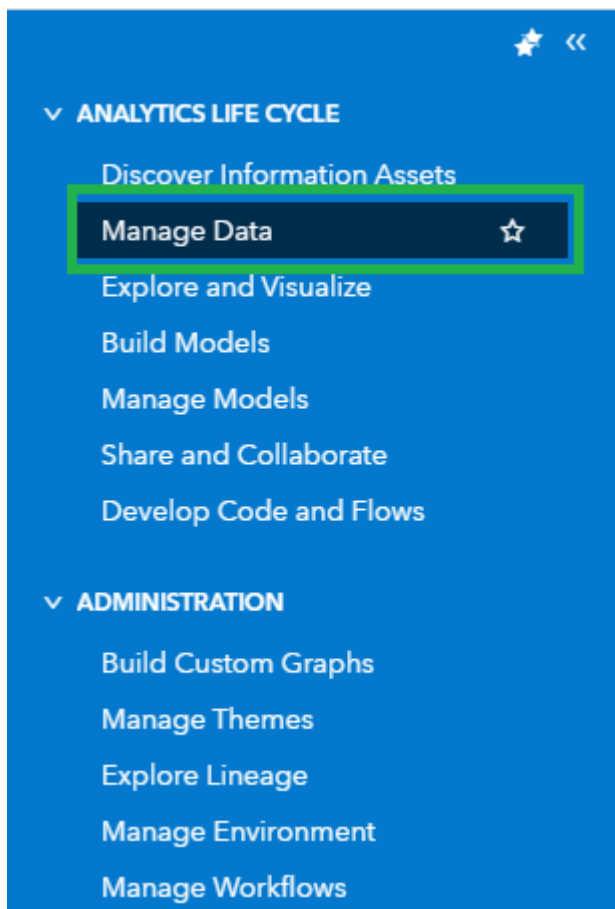
[Access SAS Viya for Learners 3.5 >>](#)

## Manage Data

**Step 1:** Select the 'Applications menu' on the left-hand side (left top corner).



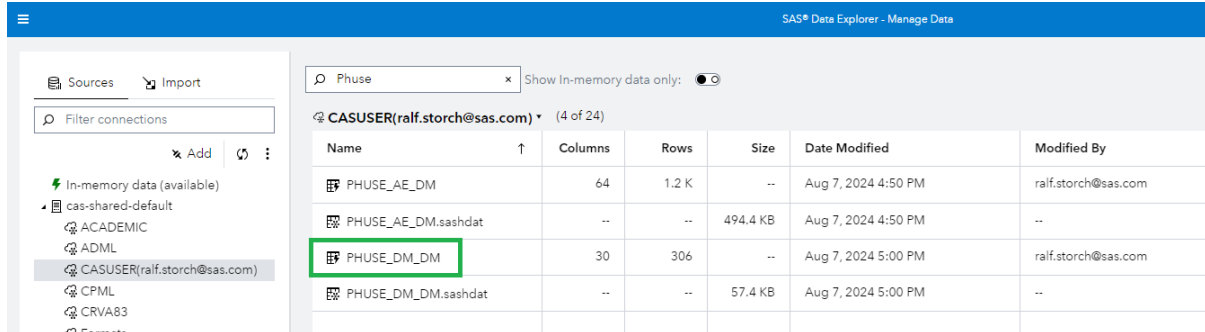
**Step 2:** In the menu panel on the left-hand side choose 'Manage Data'.



Navigate to the tab "Sources → cas-shared-default" (on the left hand side of the screen). Select CASUSER(<your Email>) under cas-shared-default and notice the tables (permanet data or In-

memory data) available. Select the table named **PHUSE\_DM\_DM** ( In-memory table). On the top right-hand side you will see information about number of columns, number of rows and the size of the table. This represents the entire sample dataset for our workshop.

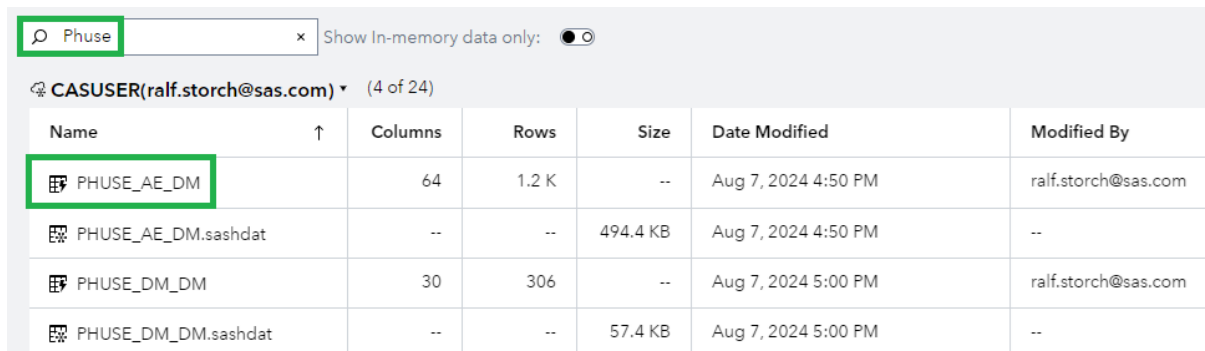
Right click on “**PHUSE\_DM\_DM.sashdat**” to load into memory if it is not already loaded into memory.



The screenshot shows the SAS Data Explorer interface. On the left, there's a sidebar with 'Sources' and 'Import' tabs. Under 'Sources', 'In-memory data (available)' is selected, and a list of connections is shown, including 'CASUSER(ralf.storch@sas.com)'. The main area displays a search for 'Phuse' with a toggle for 'Show In-memory data only'. A table list is shown for 'CASUSER(ralf.storch@sas.com)' (4 of 24). The table 'PHUSE\_DM\_DM' is highlighted with a green box.

Name	Columns	Rows	Size	Date Modified	Modified By
PHUSE_AE_DM	64	1.2 K	--	Aug 7, 2024 4:50 PM	ralf.storch@sas.com
PHUSE_AE_DM.sashdat	--	--	494.4 KB	Aug 7, 2024 4:50 PM	--
<b>PHUSE_DM_DM</b>	30	306	--	Aug 7, 2024 5:00 PM	ralf.storch@sas.com
PHUSE_DM_DM.sashdat	--	--	57.4 KB	Aug 7, 2024 5:00 PM	--

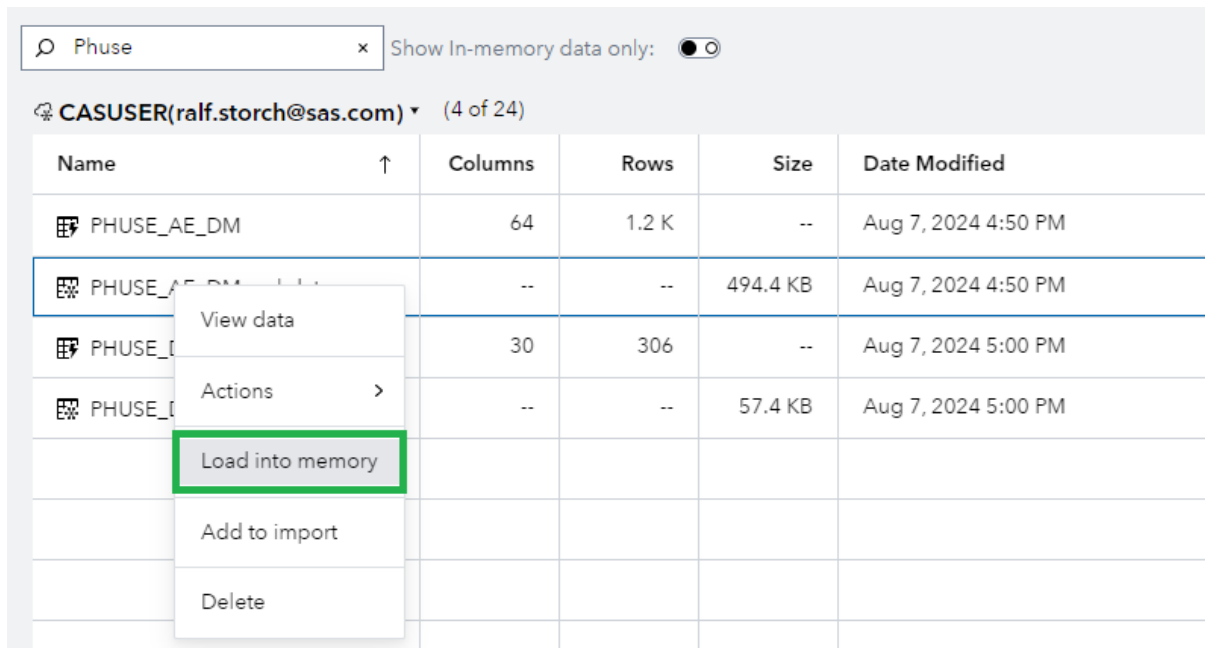
**Step 3:** Select ‘cas-shared-default’ and enter “**PHUSE**” in the search text box. Choose “**PHUSE\_AE\_DM**” from the tables that appear.



The screenshot shows the SAS Data Explorer interface. The search box contains 'Phuse'. The table list for 'CASUSER(ralf.storch@sas.com)' (4 of 24) is shown. The table 'PHUSE\_AE\_DM' is highlighted with a green box.

Name	Columns	Rows	Size	Date Modified	Modified By
<b>PHUSE_AE_DM</b>	64	1.2 K	--	Aug 7, 2024 4:50 PM	ralf.storch@sas.com
PHUSE_AE_DM.sashdat	--	--	494.4 KB	Aug 7, 2024 4:50 PM	--
PHUSE_DM_DM	30	306	--	Aug 7, 2024 5:00 PM	ralf.storch@sas.com
PHUSE_DM_DM.sashdat	--	--	57.4 KB	Aug 7, 2024 5:00 PM	--

Right click on “**PHUSE\_AE\_DM.sashdat**” to load into memory if it is not already loaded into memory.

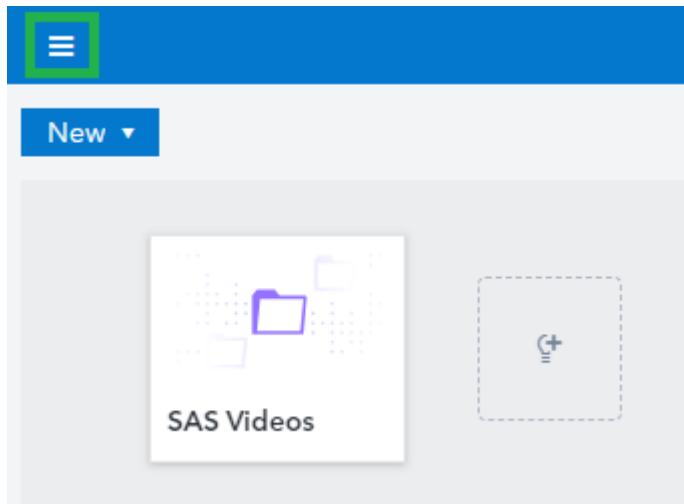


The screenshot shows the SAS Data Explorer interface. The search box contains 'Phuse'. The table list for 'CASUSER(ralf.storch@sas.com)' (4 of 24) is shown. The table 'PHUSE\_AE\_DM.sashdat' is right-clicked, and a context menu is displayed. The option 'Load into memory' is highlighted with a green box.

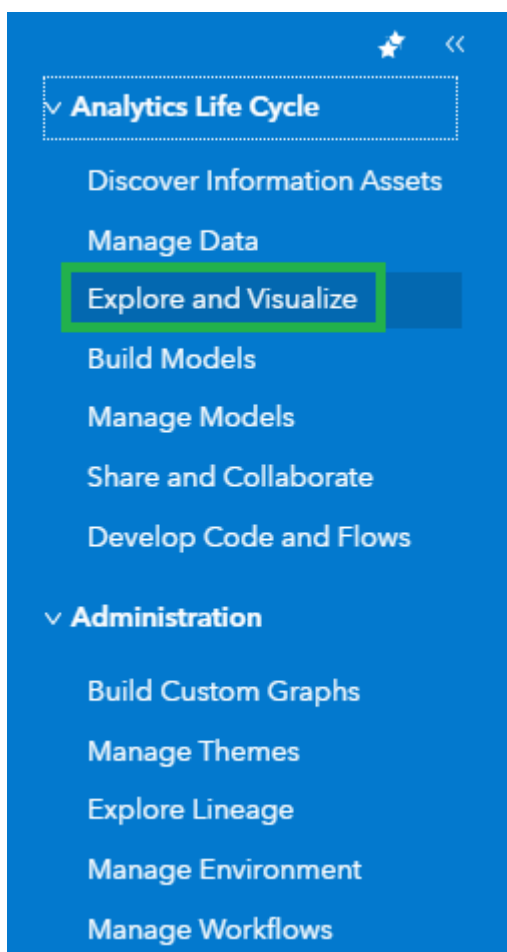
Name	Columns	Rows	Size	Date Modified
PHUSE_AE_DM	64	1.2 K	--	Aug 7, 2024 4:50 PM
PHUSE_AE_DM.sashdat	--	--	494.4 KB	Aug 7, 2024 4:50 PM
PHUSE_DM_DM	30	306	--	Aug 7, 2024 5:00 PM
PHUSE_DM_DM.sashdat	--	--	57.4 KB	Aug 7, 2024 5:00 PM

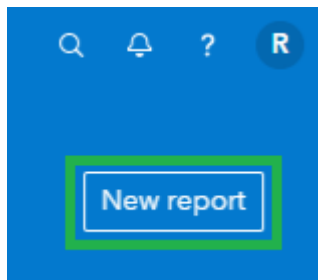
## Explore Data

**Step 1:** Navigate again to the '**Applications menu**' on the left-hand side (left top corner).

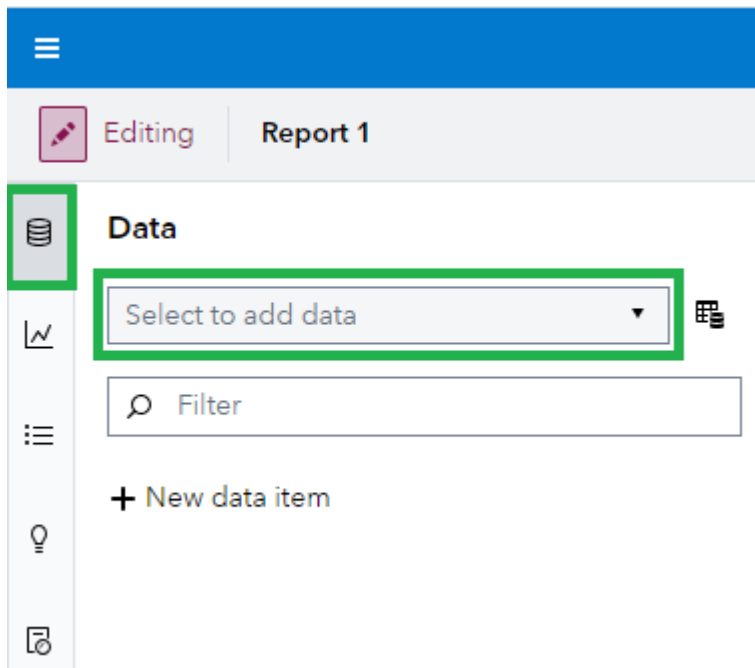


**Step 2:** Choose '**Explore and Visualize**' and select '**New Report**' in the top right corner

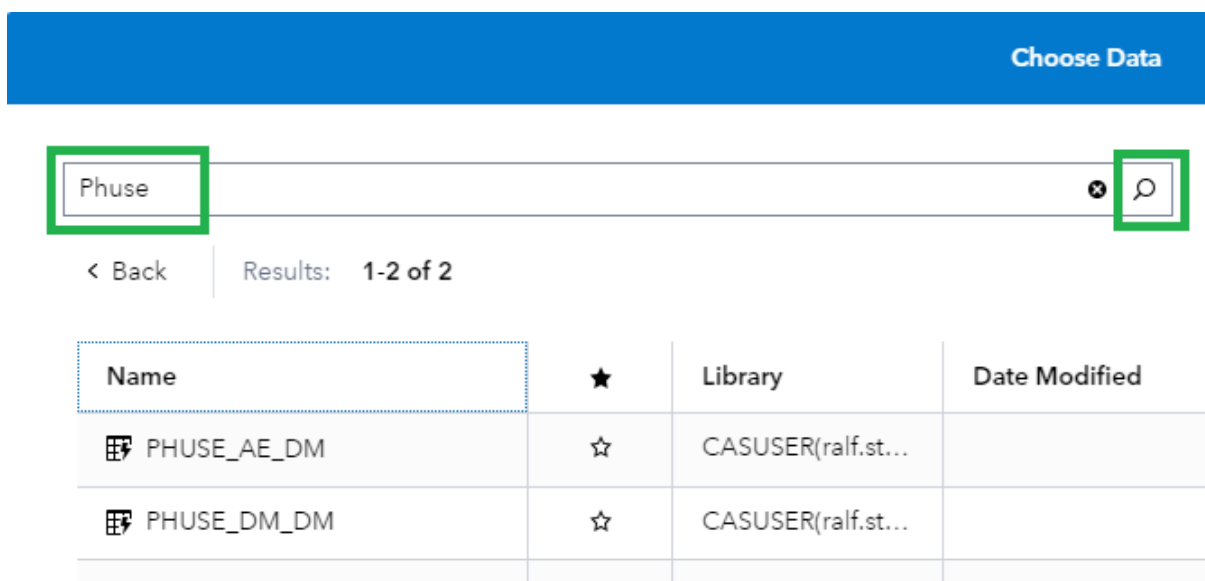




**Step 3:** Choose the 'Data' option on the left-hand side and click inside the field 'Select to add data' or click on the 'Data source menu' icon to the right of the input field and select 'Add data'.

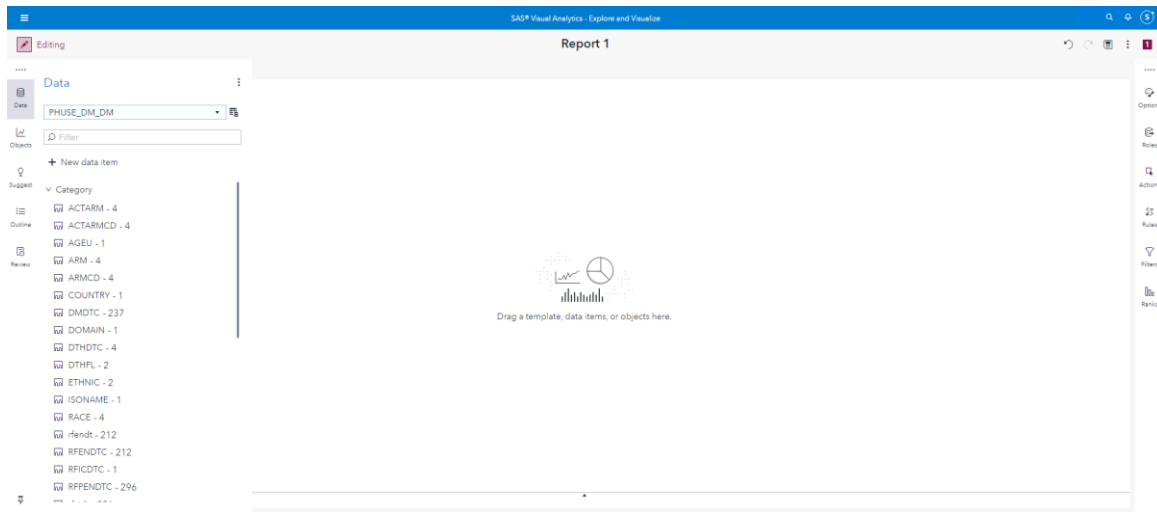


**Step 4:** Search for "PHUSE\_DM\_DM", enter "PHUSE" in the search text box and press the Return key or click on the magnifier glass. "PHUSE\_DM\_DM" data will appear on the screen.

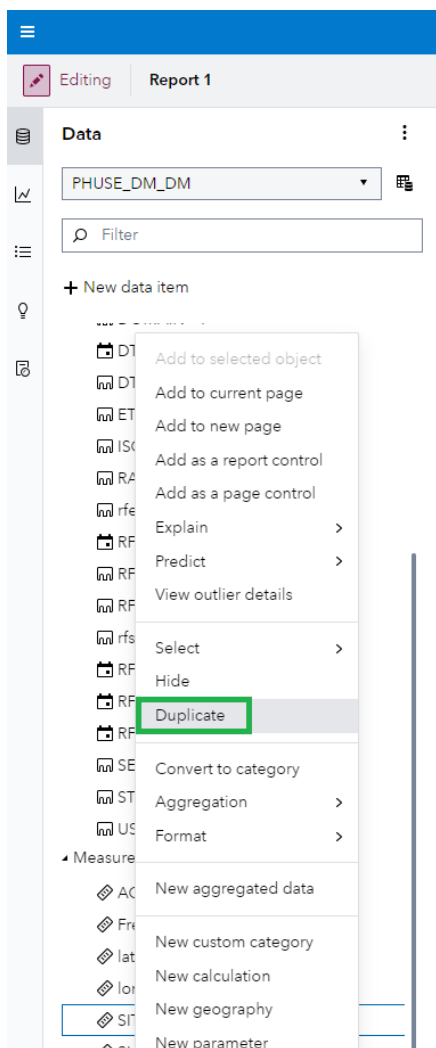


**Step 5:** Select (click once on the) “PHUSE\_DM\_DM” data already pre-loaded into memory. Hit the ‘Add’ button (bottom right corner).

You will now notice that this data is available for Data visualizations.



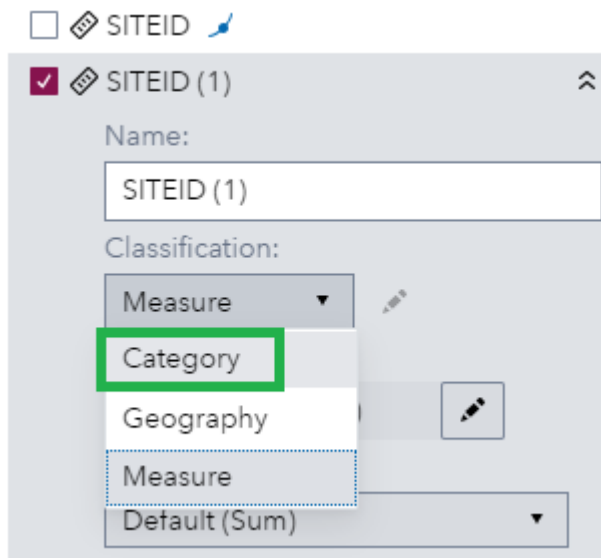
**Step 6:** Right Click on “SITEID” under ‘MEASURE’ and select ‘Duplicate’ as shown below.



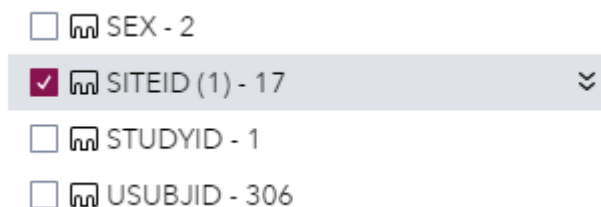
**Step 7:** Now let's convert the "SITE ID (1)" from **Measure** to **Category** as shown below. Select 'Edit properties'



In the drop down above please choose 'Category'.

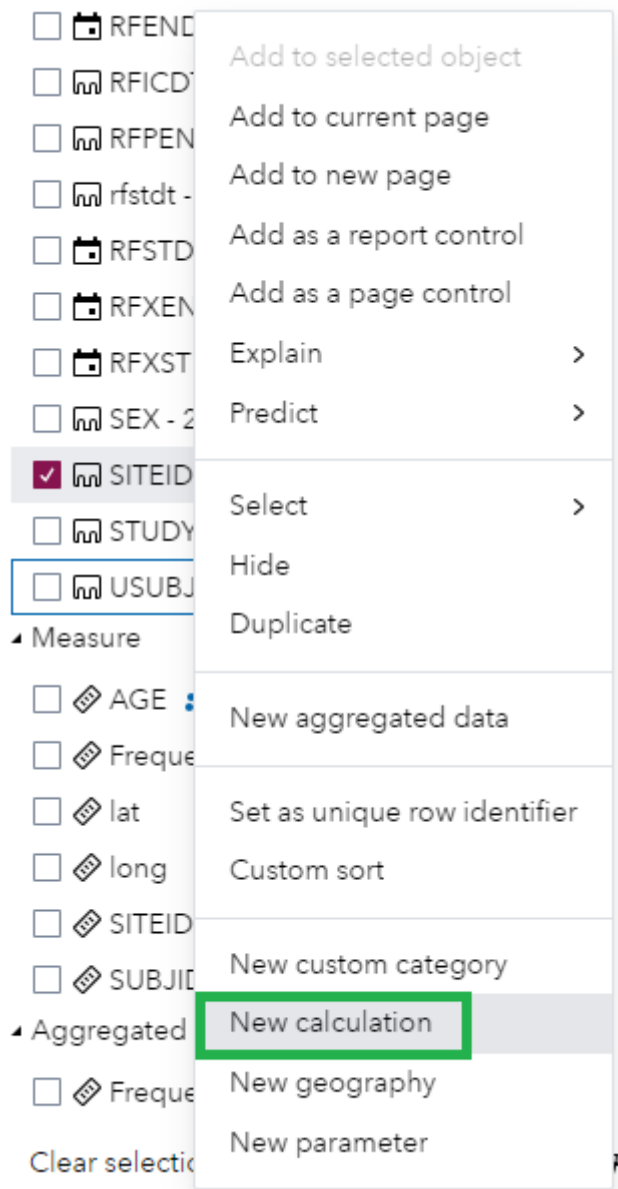


Now 'SITEID (1)' appears under the section 'Category' with 17 unique values.





Lets calculate an item, Right click on “**USUBID**” and choose ‘**New calculation**’ as shown below.



Create Calculation

Name: \*

USUBJID (Distinct count) 1

Type:

Distinct count

OK

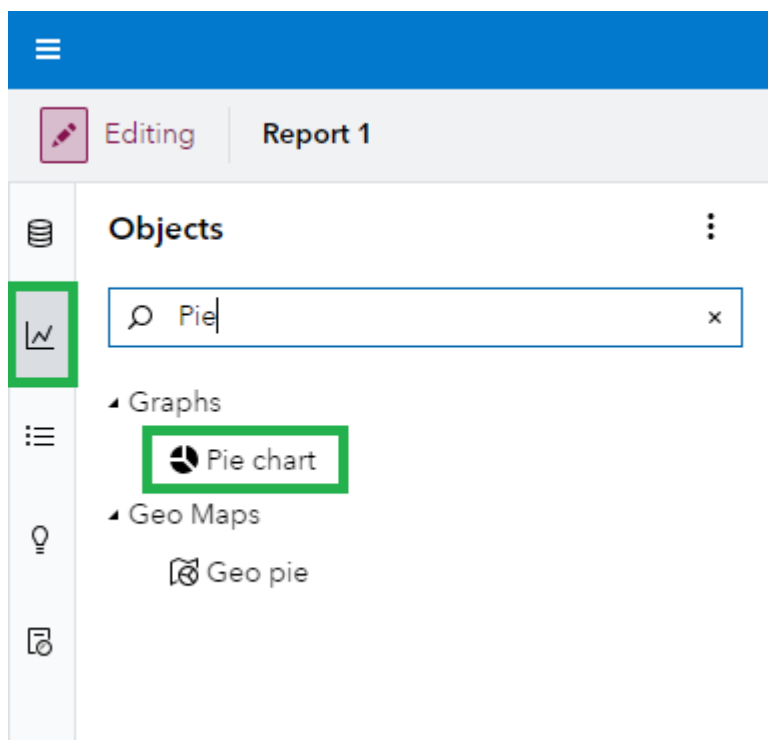
Cancel

Next, Click 'OK'.

## Dashboarding - Example

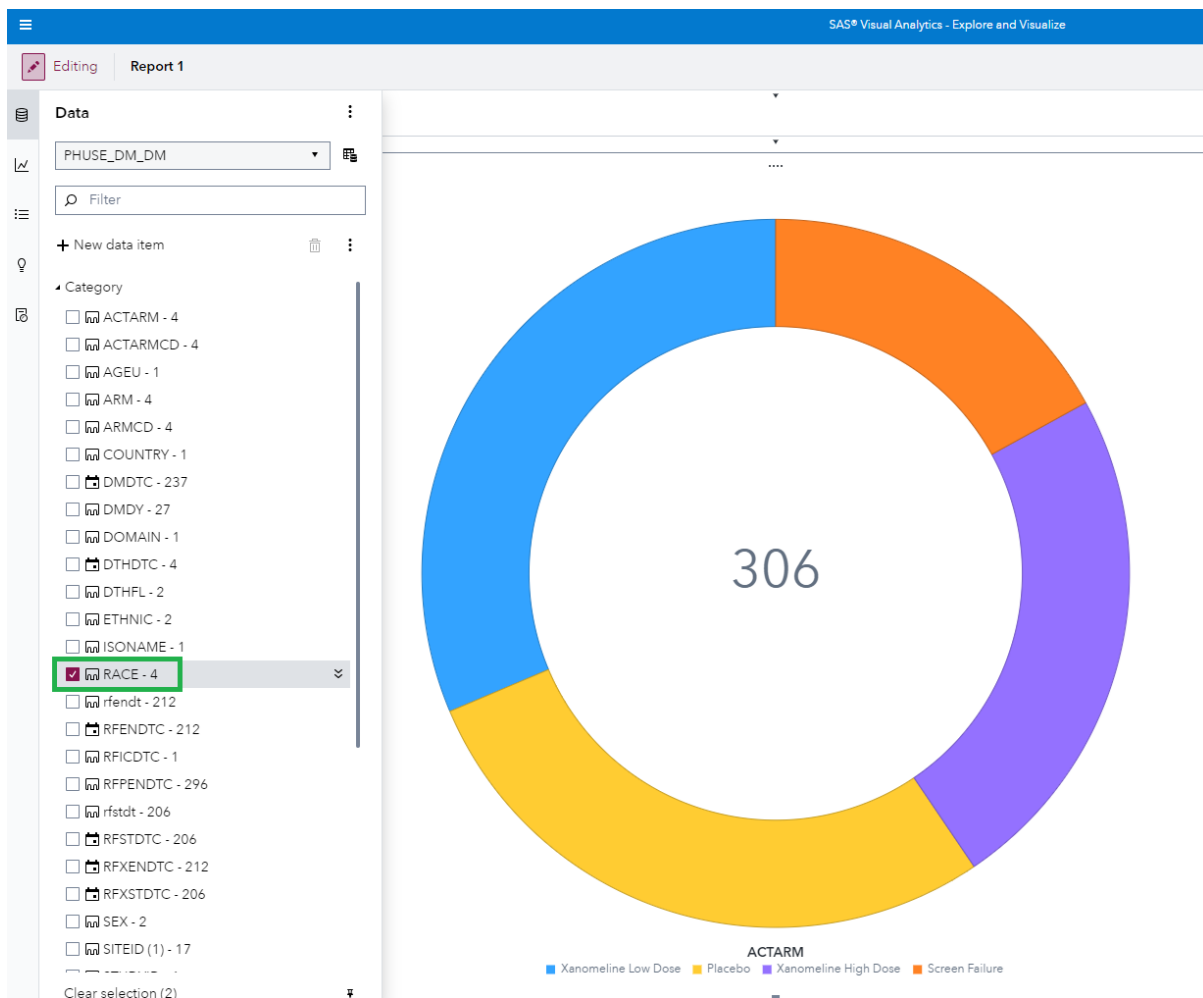
**Step 1:** Choose the option 'Objects' on the left-hand side (below the data icon).

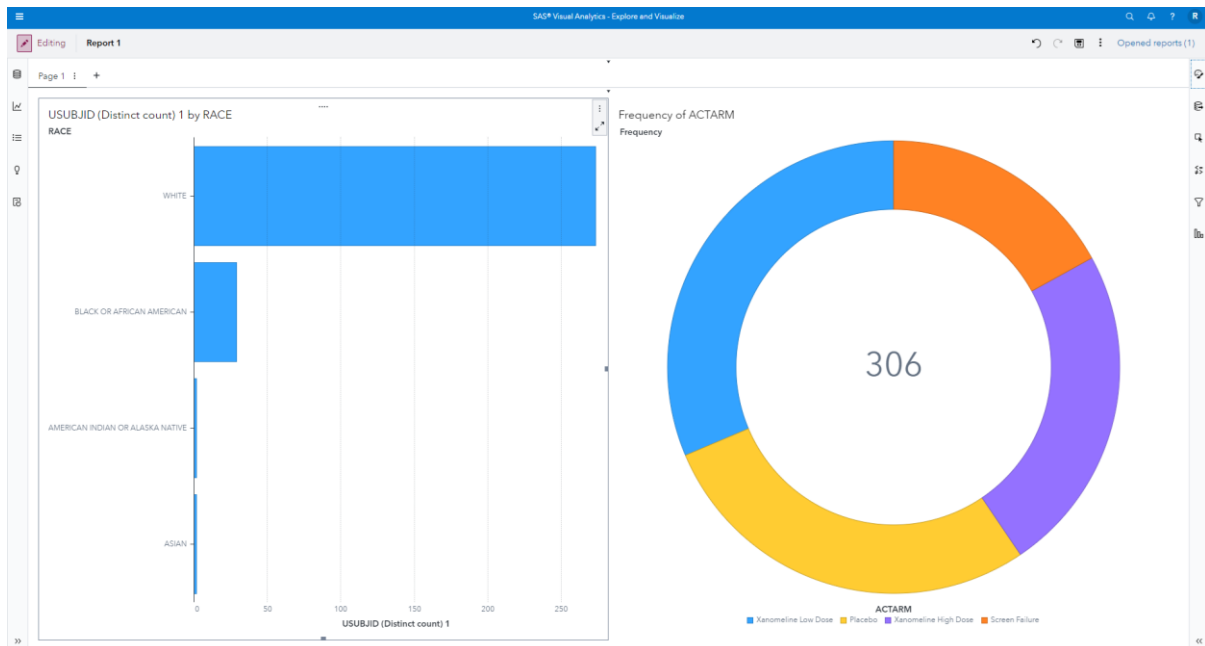
Scroll down in the Objects menu and look for 'Pie chart' or enter in the search box 'Pie chart'



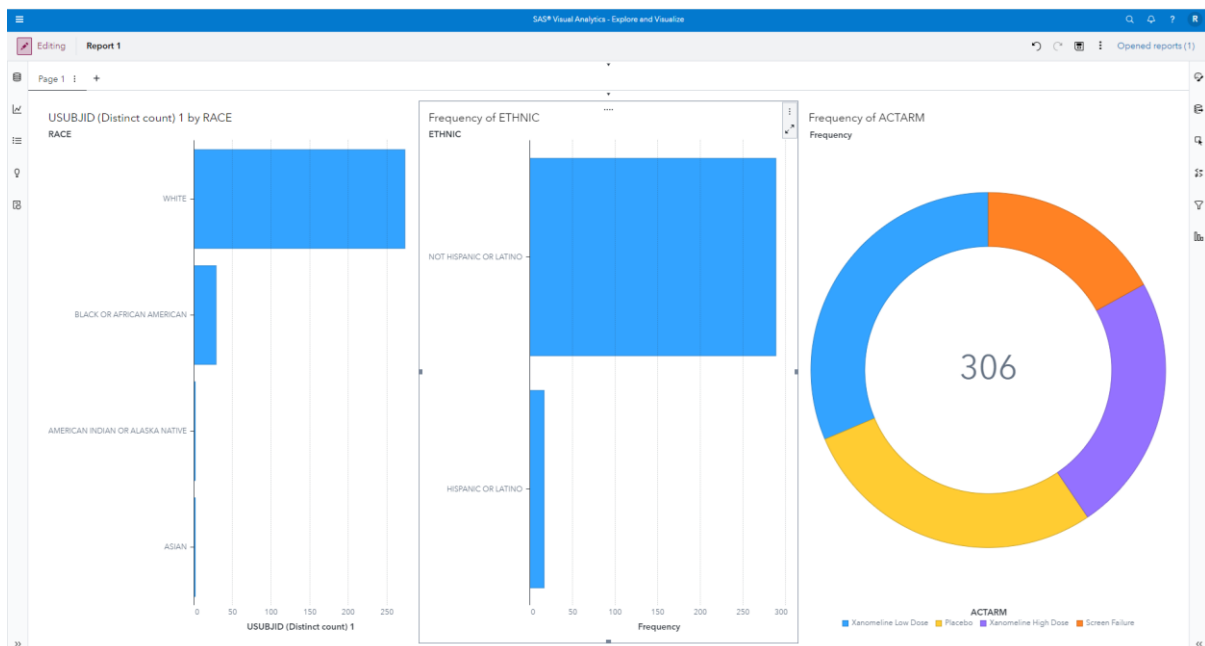
**Step 2:** Drag and drop the **'Pie chart'** object on the report. Click on **'Assign data'**, and for Category select **' + Add'** and choose **"ACTARM"** and click **"Close"**. **'Frequency'** was automatically selected as Measure.

**Step 3:** Click on **'Data'** and deselect **'SITED (1)'**. **'USUBJID (distinct count)'** is still selected. Drag and drop **"RACE"** (under Category) on the report to the left of the Pie chart.

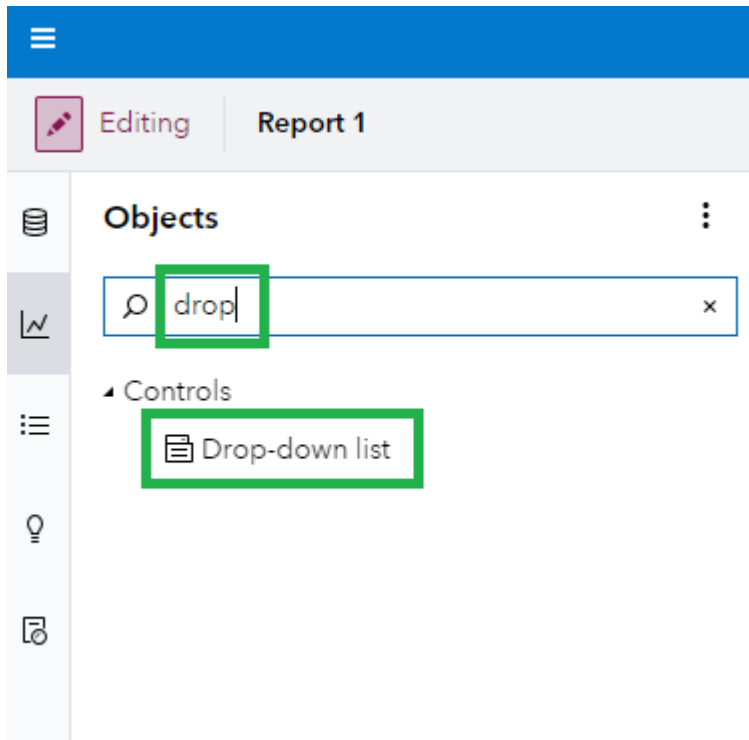




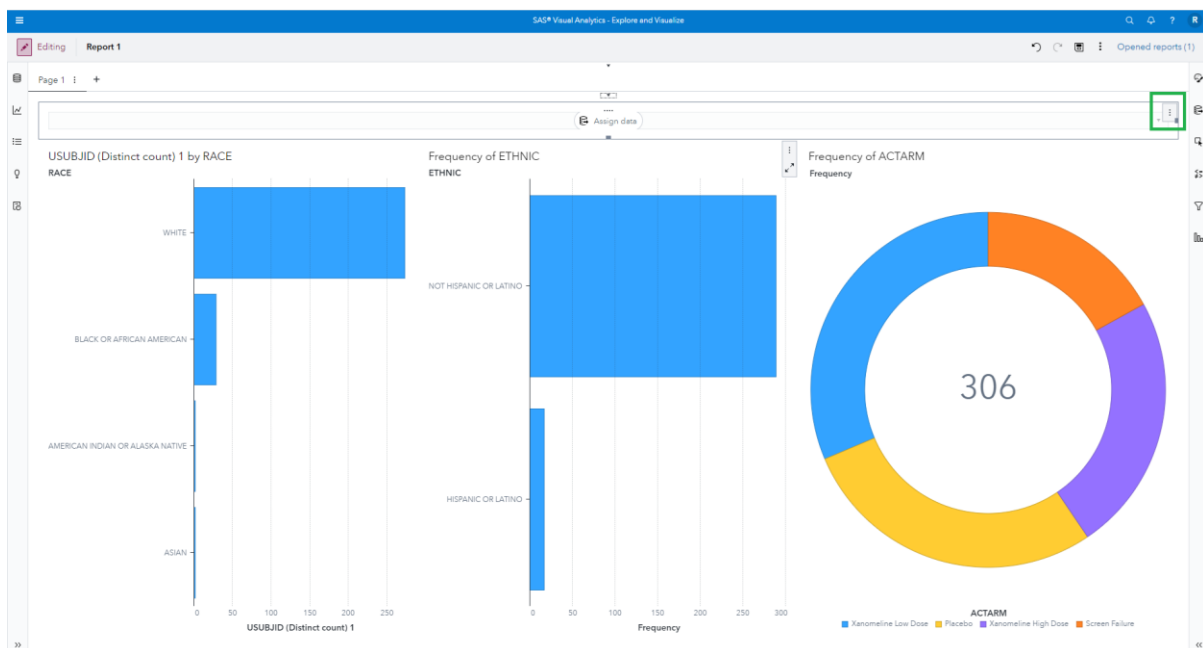
**Step 4:** Click on 'Data' and drag drop "ETHNIC" on the report between the 2 objects.



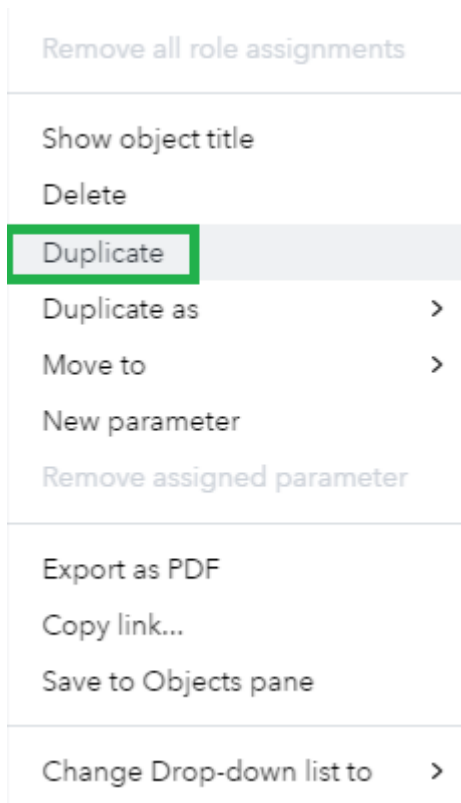
**Step 5:** Lets add some controls now. Select '**Objects**' and in the search field type "**drop**" as shown below.



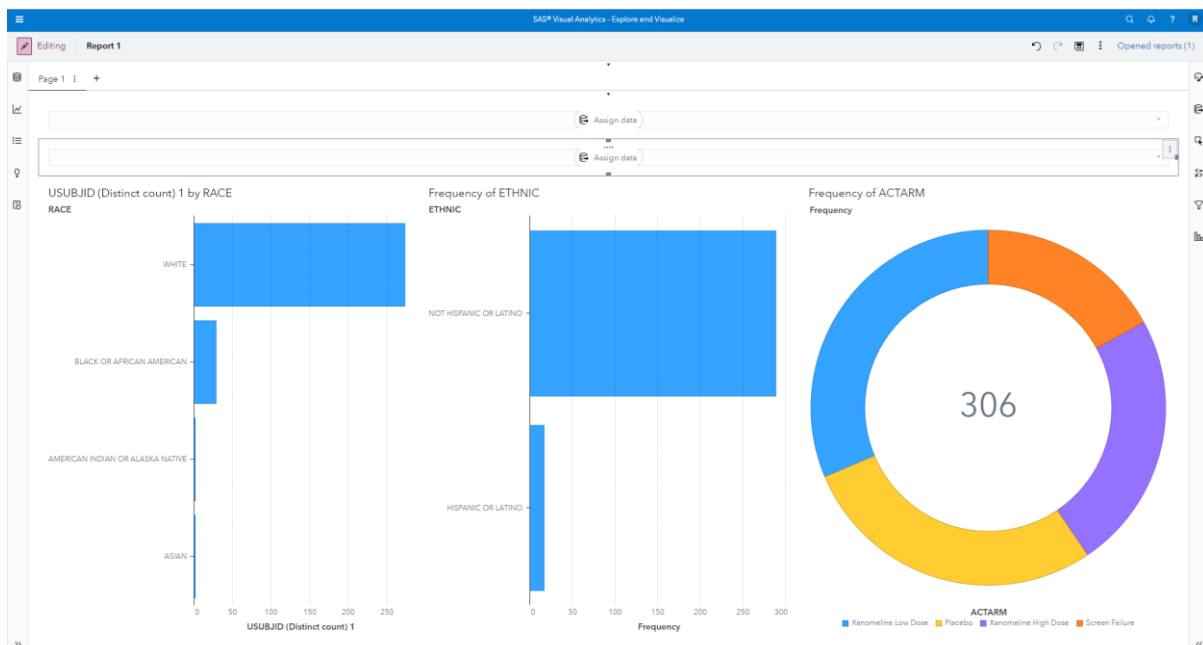
**Step 6:** Drag and drop the '**Drop-down list**' on the report (above the objects, but **not in the Page control area**) and click on the 3 dots as shown below.



And click on **‘Duplicate’** as shown below.



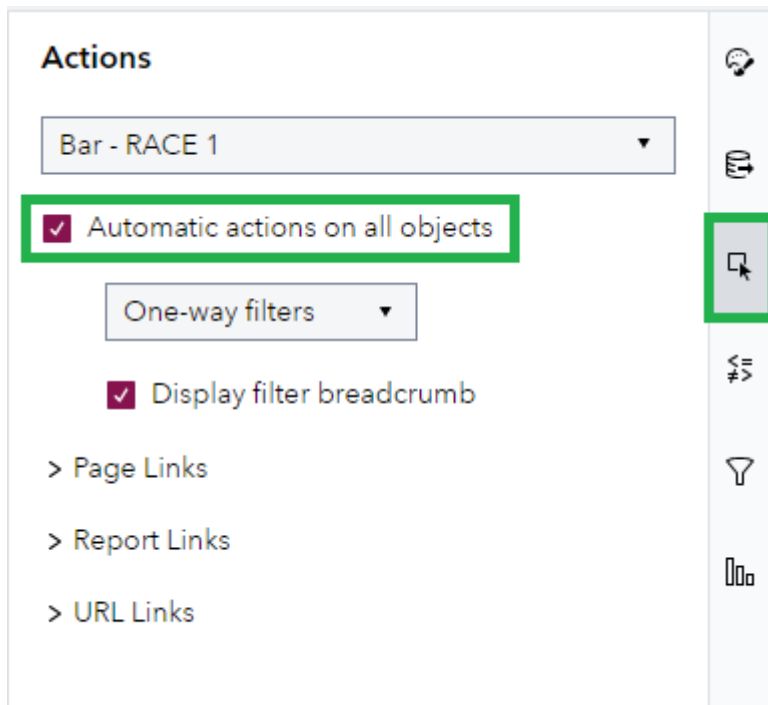
Now, your report should look as follows.



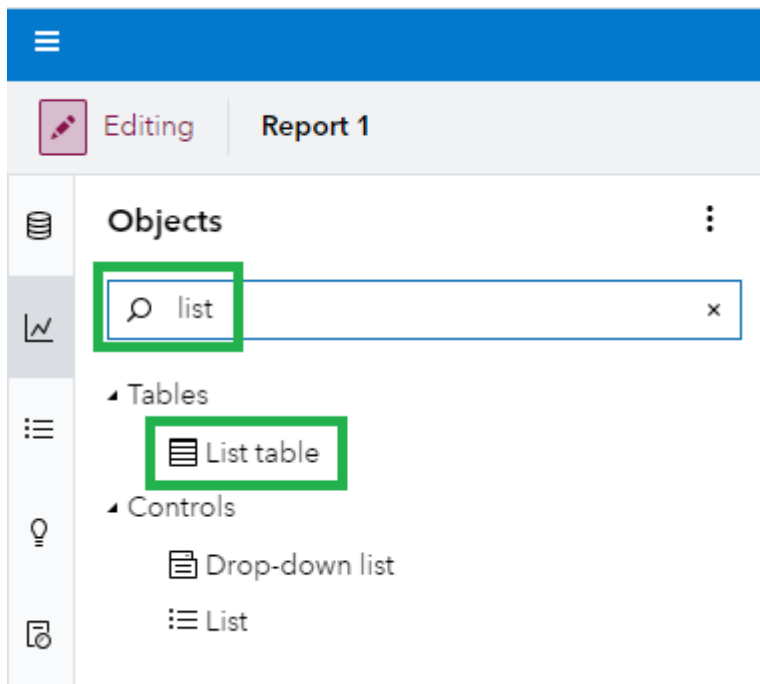
**Step 7:** Lets **‘Assign data’** to each of the **‘Drop down lists’**.

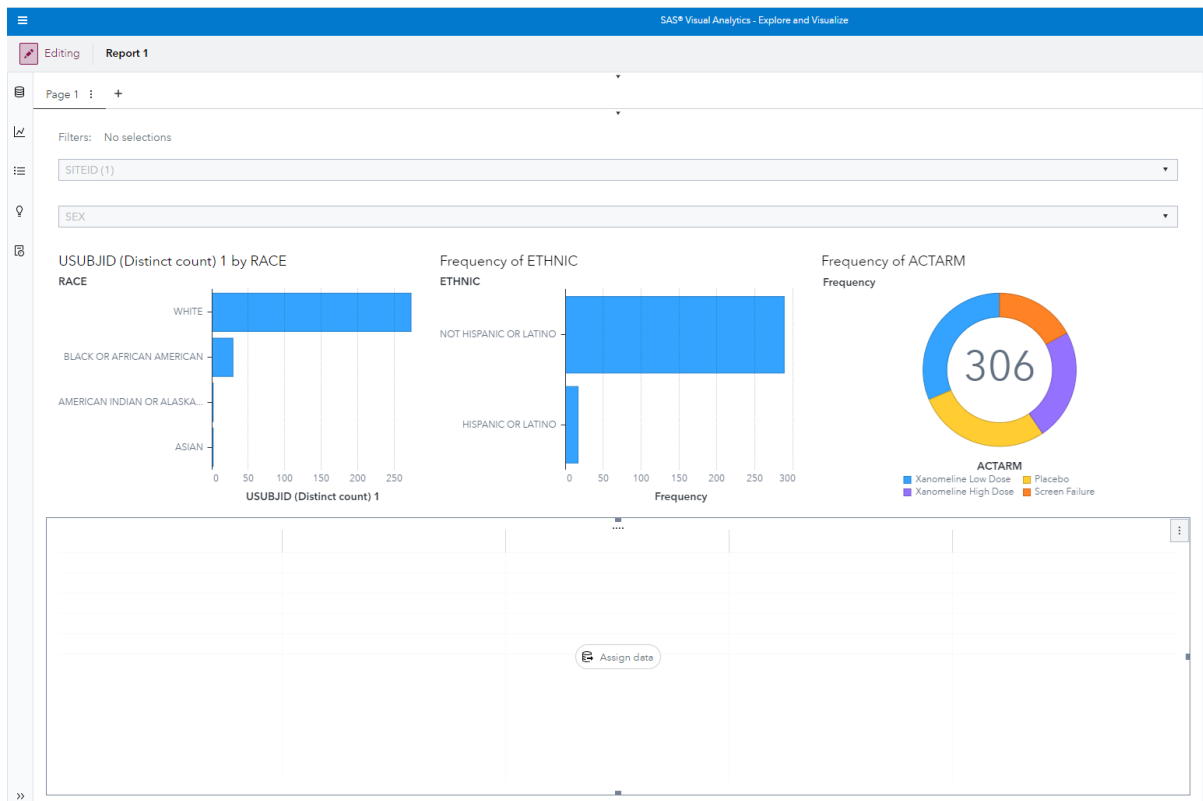
For the first one control, choose **“SITEID (1)”** and for the second control choose **“SEX”** for Category.

**Step 8:** On the right side of the report choose **'Actions'** as shown below and check the box next to **'Automatic actions on all objects'** as shown below.



**Step 9:** Finally select **'Objects'** on the left side and in the search box type **'list'**. Drag and drop **'List table'** in the report at the bottom.





**Step 10:** Lets 'Assign data' and choose the following data items as shown in the screenshot below.

The screenshot shows the 'Add Data Items' dialog box. It has a search bar with 'PHUSE\_DM\_DM' entered and a 'Filter' button. Below the search bar, there's a 'Clear selection' link. The list of data items is as follows:

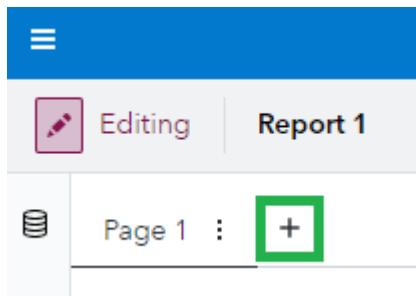
Item	Selected
COUNTRY - 1	<input type="checkbox"/>
DMDTC - 237	<input type="checkbox"/>
DMDY - 27	<input type="checkbox"/>
DOMAIN - 1	<input type="checkbox"/>
DTHDTC - 4	<input checked="" type="checkbox"/>
DTHFL - 2	<input checked="" type="checkbox"/>
ETHNIC - 2	<input checked="" type="checkbox"/>
ISONAME - 1	<input type="checkbox"/>
RACE - 4	<input type="checkbox"/>
rfendt - 212	<input checked="" type="checkbox"/>
RFENDTC - 212	<input type="checkbox"/>
RFICDTC - 1	<input type="checkbox"/>
RFPENDTC - 296	<input type="checkbox"/>
rfstdt - 206	<input checked="" type="checkbox"/>
RFSTDTC - 206	<input type="checkbox"/>
RFXENDTC - 212	<input type="checkbox"/>
RFXSTDTC - 206	<input type="checkbox"/>
SEX - 2	<input checked="" type="checkbox"/>
SITEID (1) - 17	<input checked="" type="checkbox"/>
STUDYID - 1	<input checked="" type="checkbox"/>
USUBJID - 306	<input checked="" type="checkbox"/>
AGE	<input type="checkbox"/>
Frequency	<input type="checkbox"/>
Frequency Percent	<input type="checkbox"/>

**Congratulations! You have built your interactive dashboard!**

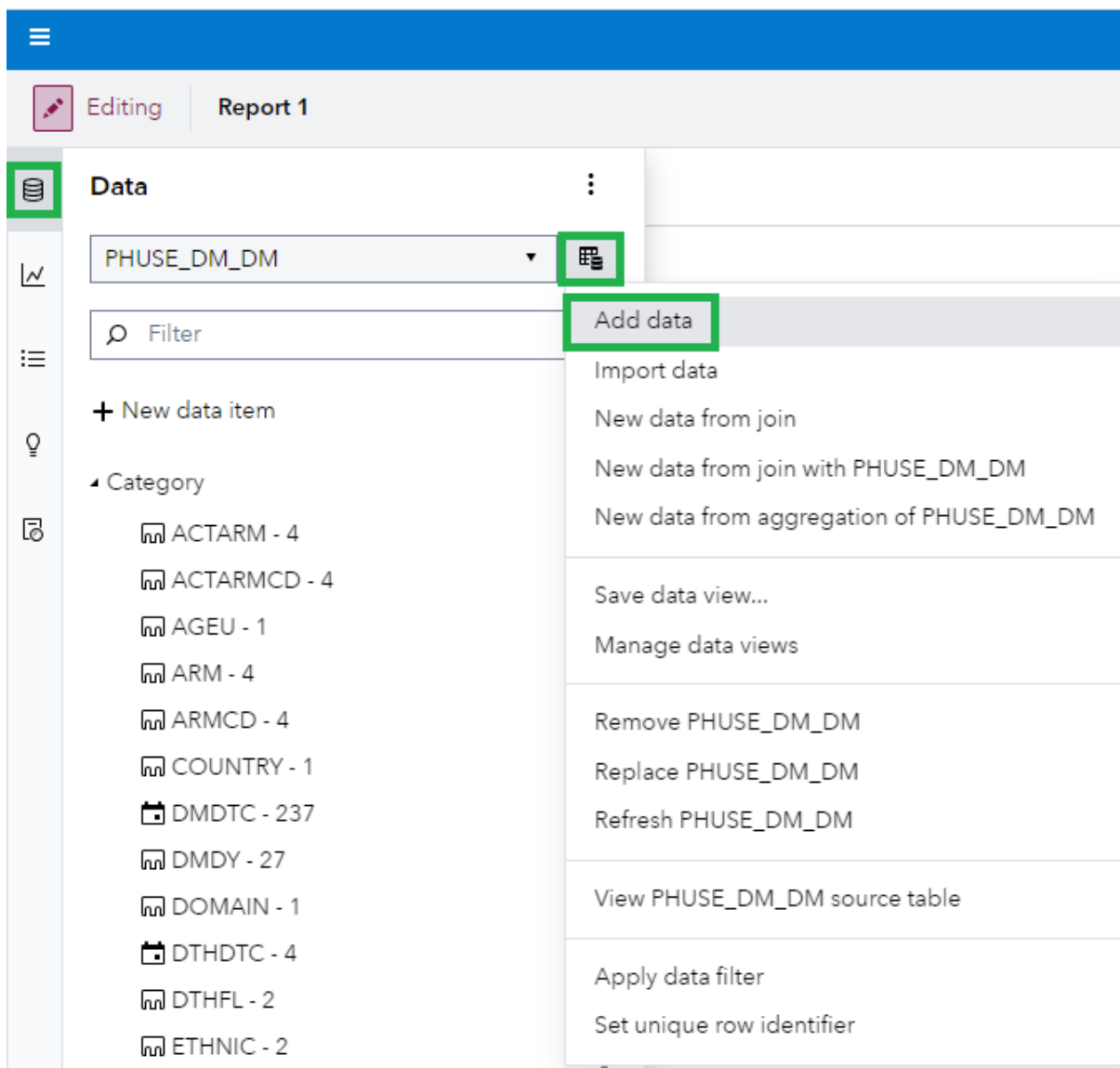


## Real World Data Exploration - Example

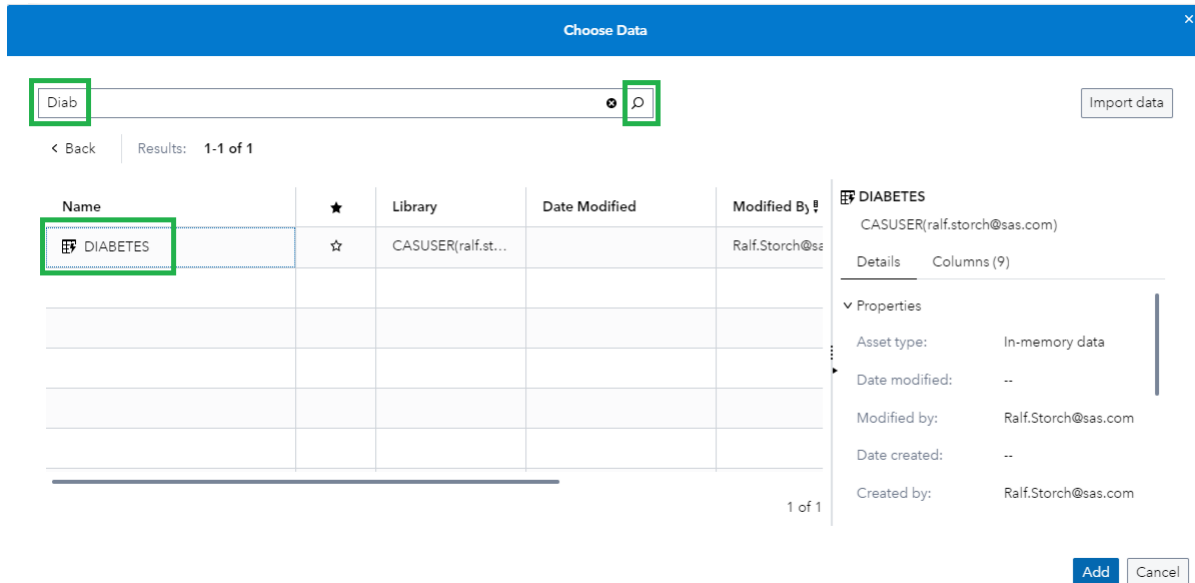
**Step 1:** Create a new page in the same report. Use the “+” icon next to Page 1.



Choose another dataset as shown below.



Select the “**Diabetes**” dataset as shown below. Click ‘**Add**’.



Choose Data

Diab

Import data

< Back Results: 1-1 of 1

Name	★	Library	Date Modified	Modified By
DIABETES	☆	CASUSER(ralf.st...		Ralf.Storch@sa

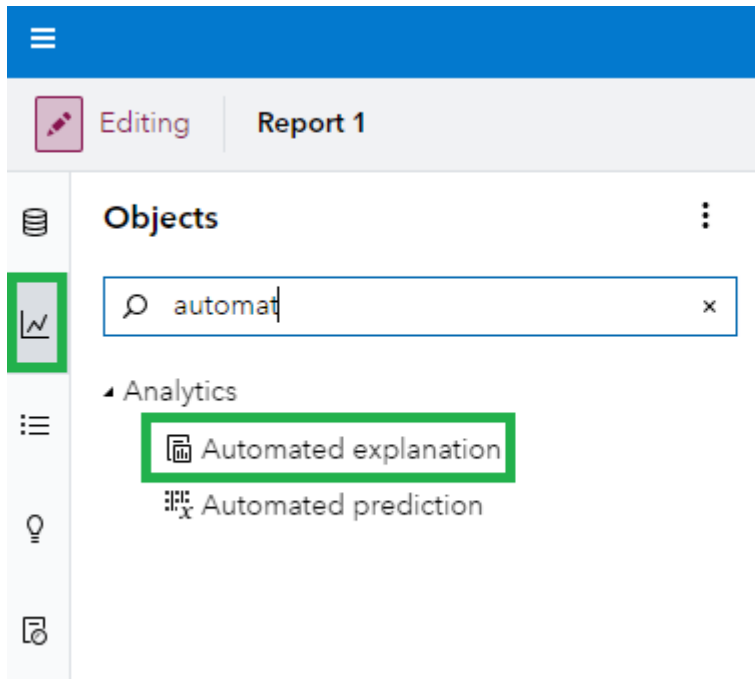
1 of 1

**DIABETES**  
CASUSER(ralf.storch@sas.com)  
Details Columns (9)  
Properties  
Asset type: In-memory data  
Date modified: --  
Modified by: Ralf.Storch@sas.com  
Date created: --  
Created by: Ralf.Storch@sas.com

Add Cancel

**Step 2:** Choose the option ‘**Objects**’ on the left-hand side (below the data icon).

Scroll down in the Objects menu OR enter in the search box ‘**Automated Explanation**’



Editing Report 1

Objects

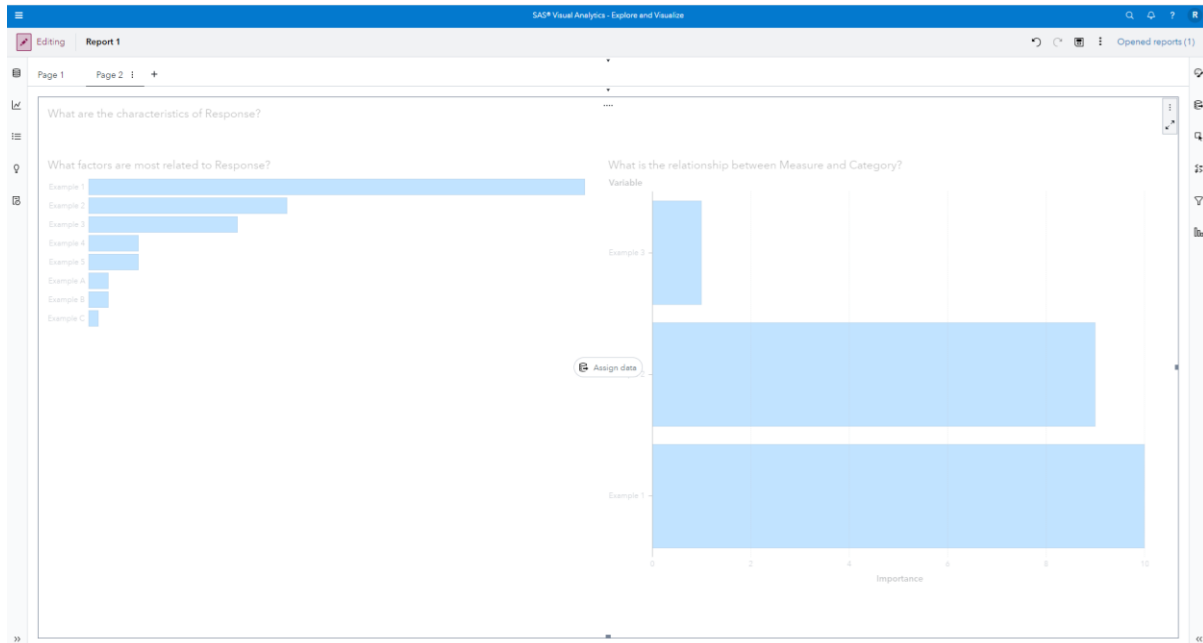
Search: automat

Analytics

Automated explanation

Automated prediction

Drag and Drop the ‘**Automated Explanation**’ analytics object on the report.



By now, you must be a pro in making variable assignments! For reference, click on '**Assign Data**', and make the following selections.

- For the RESPONSE variable, select **"Outcome"**
- For the UNDERLYING FACTORS variables, select **All Variables** (this should happen automatically) and select **"Close"**

Response

Outcome

Time

+ Add

Underlying factors

+ Add

Age

BloodPressure

BMI

DiabetesPedigreeFunct...

Glucose

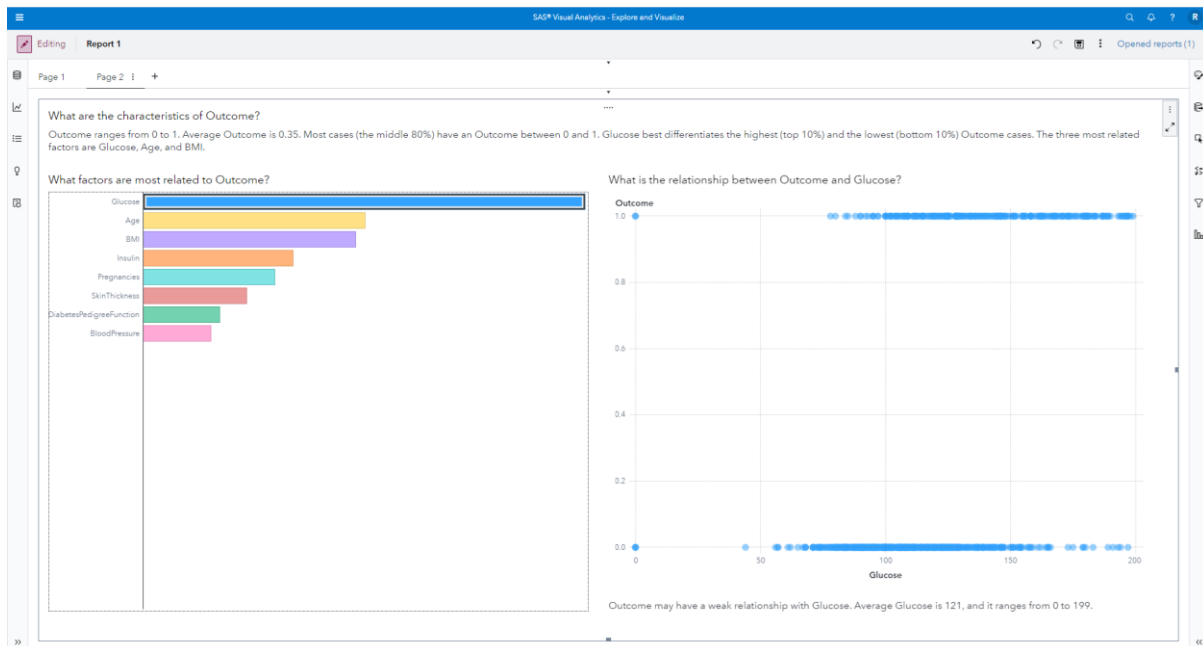
Insulin

Pregnancies

SkinThickness

Close

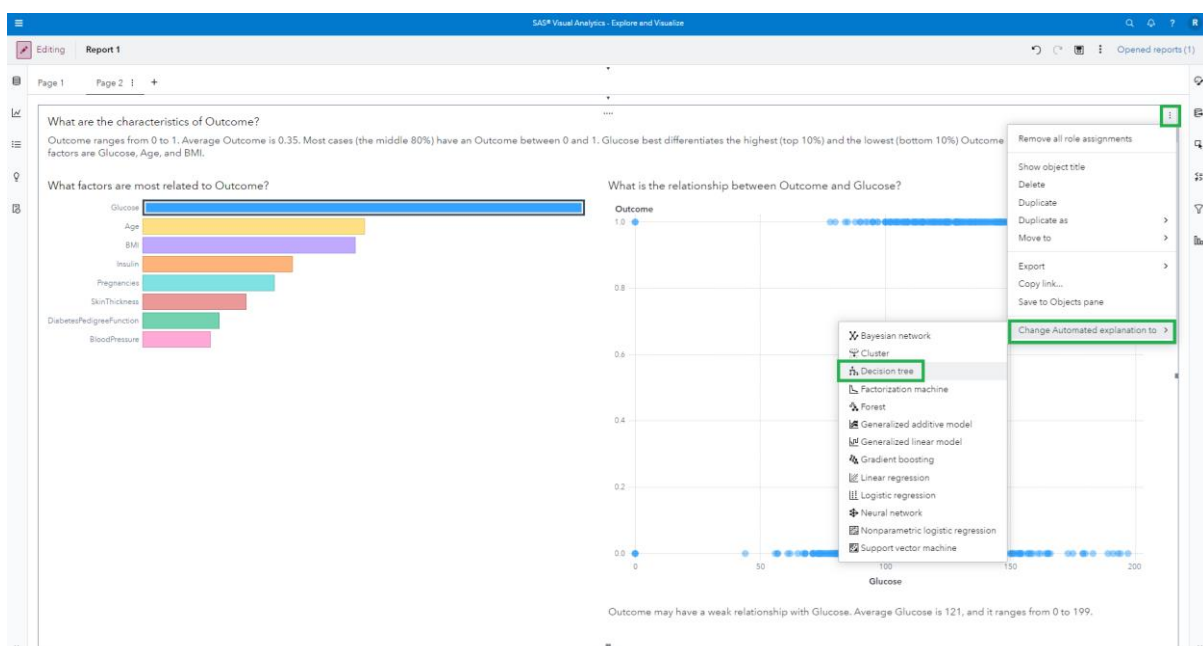
Et voila! (couldn't resist that...) Once you click on **“Close”**, your Automated Explanation object comes up after a while as follows!



Automated Explanation (Tab2 – Page 2) on Report 1 is now successfully created. You will also notice the most important factor (related to response variable ‘serious’).

You can select the other factors to see how the graph and data / explanation is changing dynamically.

Next select the 3 dots on the top right corner as shown below → **Change Automated Explanation to** → **Decision tree**.



Your Decision tree report should look as follows –



-----END-----