

Part 1: Create Logical Data Model

Task 1:

Cube mapping

Cube measures definition :

The screenshot shows the Analytic Workspace Manager interface. On the left, a tree view displays the database structure, including the OLAPTRAIN_S4654830 cube and its dimensions (CHANNEL, TIME). The right pane shows the 'General' tab for the 'SALES_YTD' calculated measure.

General Tab Configuration:

- Name: SALES_YTD
- ID: OLAPTRAIN_S4654830.SALES_CUBE.SALES_YTD
- Short Label: sales ytd
- Long Label: sales ytd
- Description: sales ytd
- Calculation Type: Period To Date

Calculation: Ancestor At Level TIME.CALENDAR_YEAR to date for SALES_YTD in the TIME dimension and TIME.CALENDAR hierarchy. Aggregate using SUM from the beginning of the period.

Expression: SUM(SALES_CUBE.SALES) OVER (HIERARCHY "TIME" CALENDAR BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT DIMENSION LEVEL "TIME" CALENDAR_YEAR)

Advanced Tab:

Create	Name	Short Label	Long Label	Description	Expression
	SALES	Sales	Sales	Sales	

The screenshot shows the Analytic Workspace Manager interface. On the left, a tree view displays the database structure, including the OLAPTRAIN_S4654830 cube and its dimensions (CHANNEL, TIME). The right pane shows the 'General' tab for the 'SALES_YTD_PY' calculated measure.

General Tab Configuration:

- Name: SALES_YTD_PY
- ID: OLAPTRAIN_S4654830.SALES_CUBE.SALES_YTD_PY
- Short Label: Sales Ytd Pr Year
- Long Label: Sales Ytd Pr Year
- Description: Sales Ytd Pr Year
- Calculation Type: Parallel Period

Calculation: Parallel period for SALES_YTD in the TIME dimension and TIME.CALENDAR hierarchy 1 TIME.CALENDAR_YEAR ago based on position from beginning to ending of period.

Expression: LAG(SALES_CUBE.SALES_YTD, 1) OVER (HIERARCHY "TIME" CALENDAR BY ANCESTOR AT DIMENSION LEVEL "TIME" CALENDAR_YEAR POSITION FROM BEGINNING)

Advanced Tab:

Create	Name	Short Label	Long Label	Description	Expression
	SALES_YTD	sales ytd	sales ytd	sales ytd	
	SALES	Sales	Sales	Sales	SUM(OLAPTRAIN_S4654830.SALES_CUBE.SALES) OVER (HIERARCHY OLAPTRAIN_S4654830 "TIME" CALENDAR BETWEEN UNBOUNDED PRECEDING AND CURRENT MEMBER WITHIN ANCESTOR AT DIMENSION LEVEL "TIME" CALENDAR_YEAR)

Summary mapping:

The screenshot displays the Analytic Workspace Manager interface. On the left, a tree view shows the database structure for 's1234567' and 's4654830'. The 'SALES_CUBE' is selected under the 'Cubes' folder. The main pane shows the 'Summary mapping' for 'SALES_CUBE'. The 'Measures' section lists 'QUANTITY' with the source column 'OLAPTRAIN_S4654830.SALES_FACT.QUANTITY'. The 'Dimensions' section lists 'CHANNEL' with the source column 'OLAPTRAIN_S4654830.CHANNELS.CHANNEL_KEY'. The 'Time' section lists 'MONTH' with the source column 'OLAPTRAIN_S4654830.TIMES.MONTH_ID'. The 'Geography' section lists 'REGION', 'COUNTRY', and 'STATE_PROVINCE' with their respective source columns. The 'Product' section lists 'DEPARTMENT', 'CATEGORY', 'TYPE', and 'SUBTYPE' with their respective source columns. The 'Filter' section is empty.

Task 2:

Maintain:

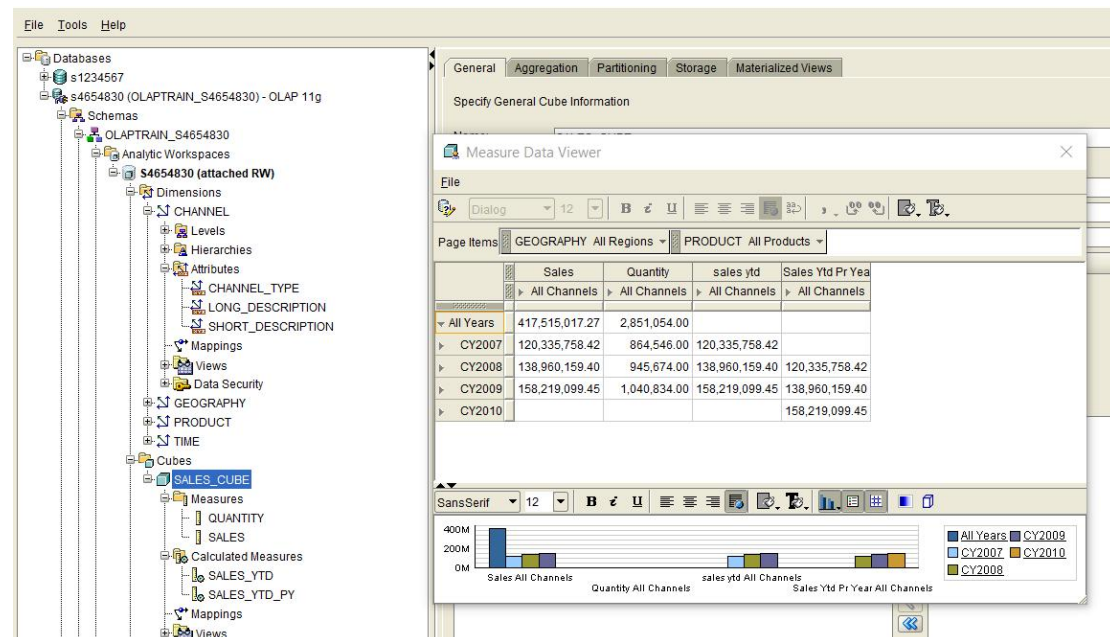
The screenshot displays the Analytic Workspace Manager interface with the 'Maintenance Log' window open. The 'Maintenance Log' window shows a list of maintenance steps for the 'SALES_CUBE' and its dimensions. The 'Maintenance Status' dialog box is also open, showing the status of the maintenance process.

Object	Object Type	Partition	Rows Added	Rows Deleted	Rows Rejected	Refresh Method
CHANNEL	DIMENSION		0	0	0	COMPLETE
TIME	DIMENSION		69	0	0	COMPLETE
GEOGRAPHY	DIMENSION		0	0	0	COMPLETE
PRODUCT	DIMENSION		0	0	0	COMPLETE
SALES_CUBE	CUBE		1507190	0	0	COMPLETE

Task 3:

View data:

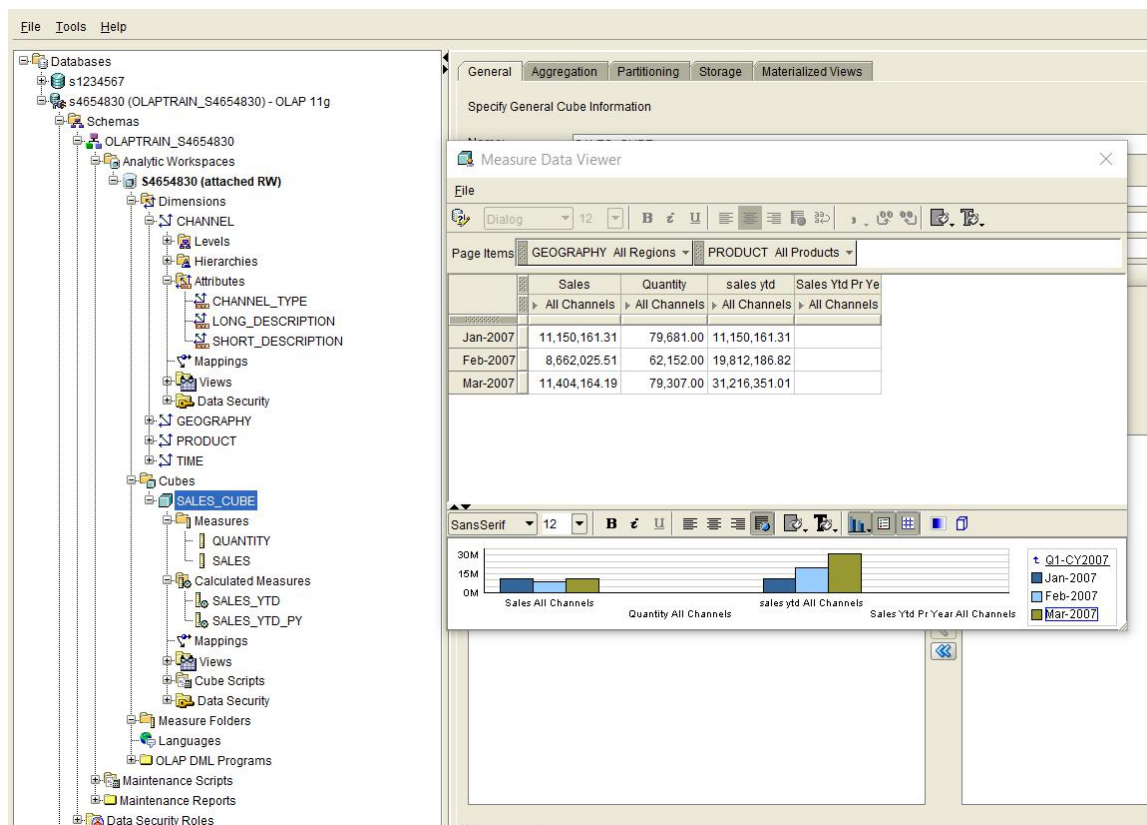
1: The drill - down



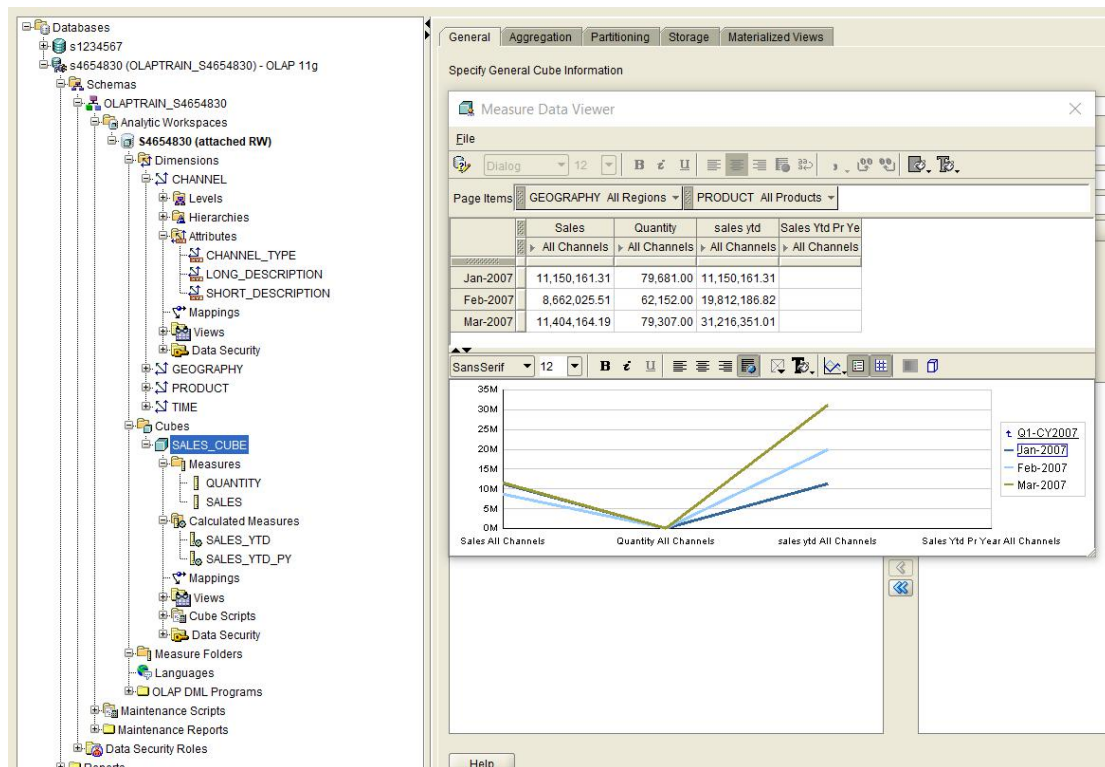
Describe:

Now we could see the all-year's data(total Sales) and it's conclude 2007 - 2010, now i am try to drill down the data into : All Years -- CY2007 -- Q1-CY2007 and check the Jan to Mar 's data.

Drill down result:



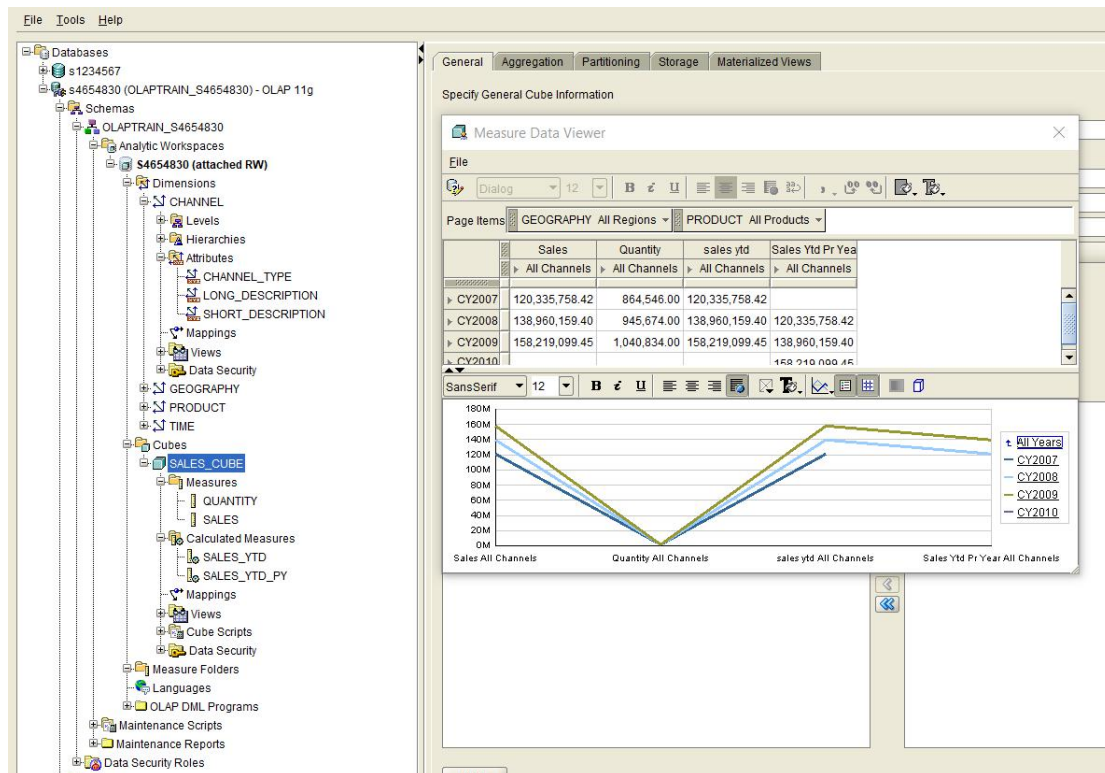
2: Roll up



Describe :

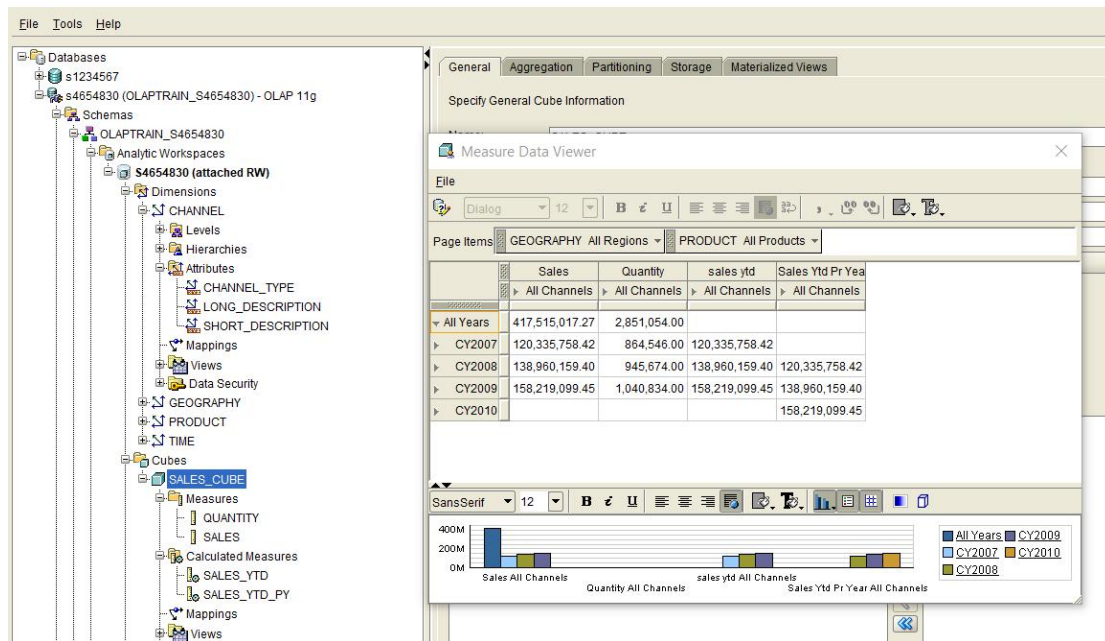
Now we are in the Q1-CY2007 level, based on first screenshot, we could see the Jan - Mar's data, now we do the roll up , the level should be Q1 - CY2007 --> CY2007 -->All years, the results is below.

Roll up results:



3:pivot

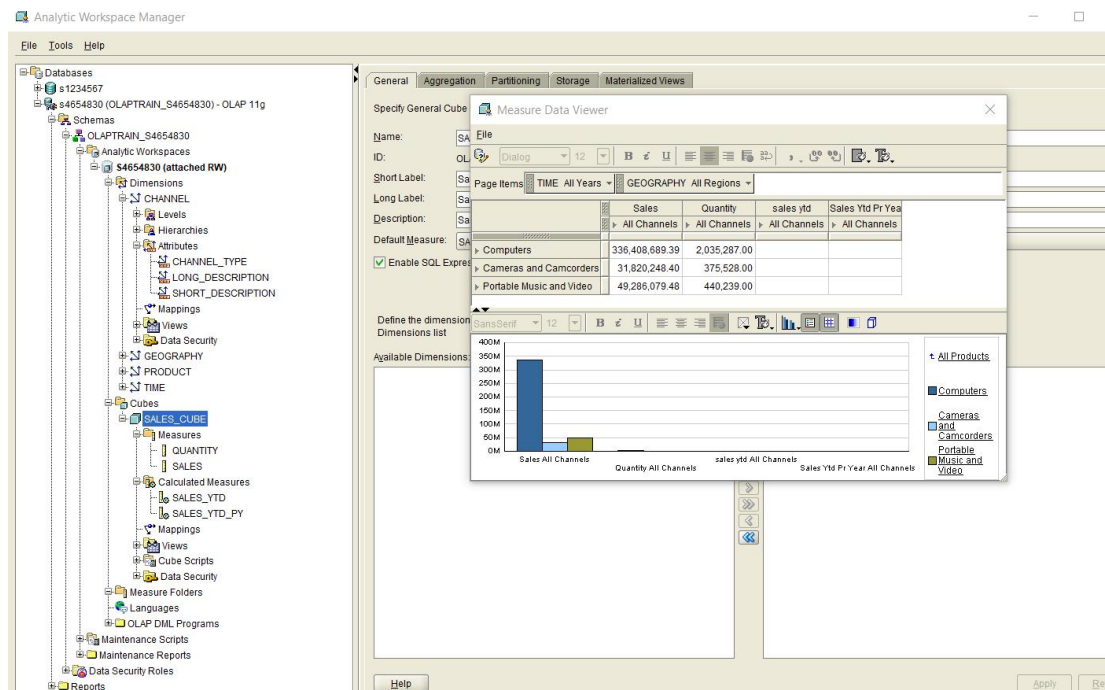
The current data structure of the cube



Describe:

Based on the current data cube, i find the row is time , so i use the query builder change the row and column and view the data again, the plow will show below.

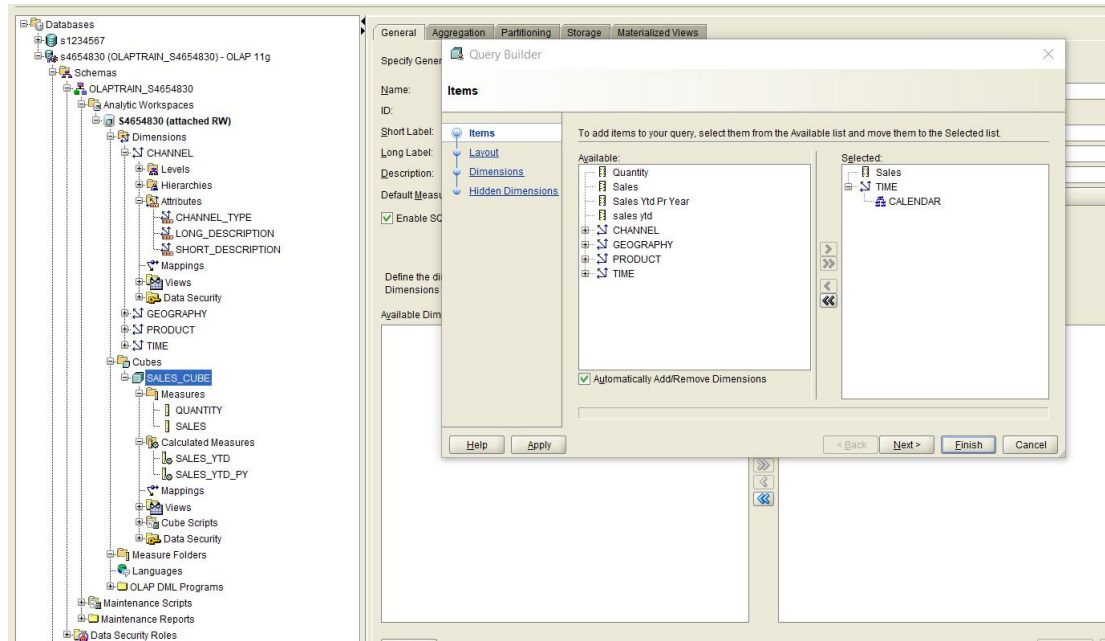
Result:



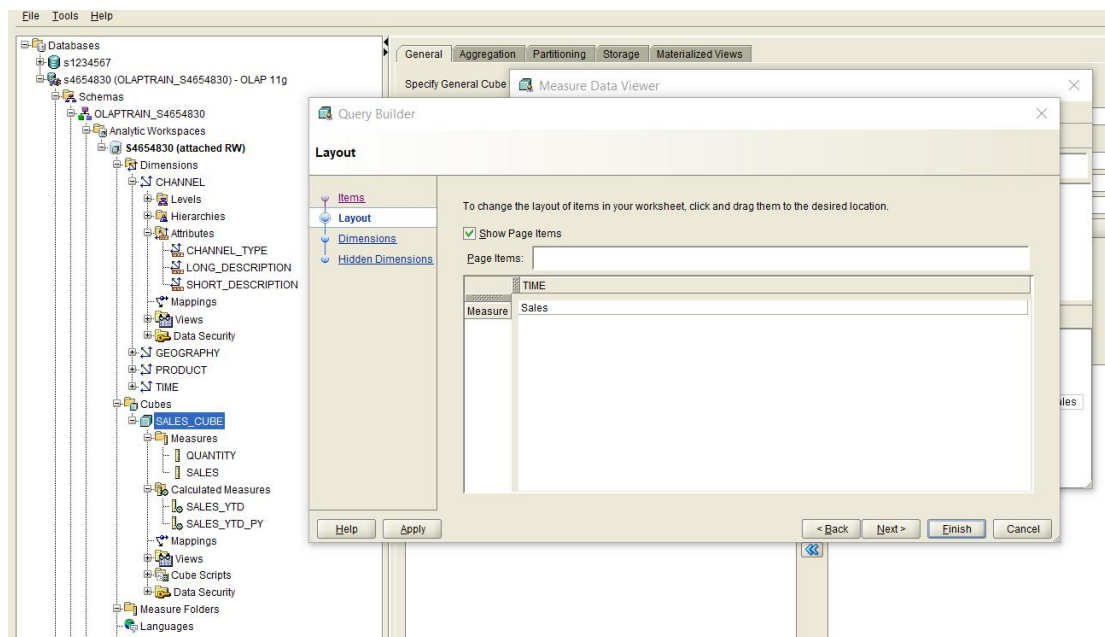
Task 3 part 2

For get the first version, use the Query builder the screenshot is below:

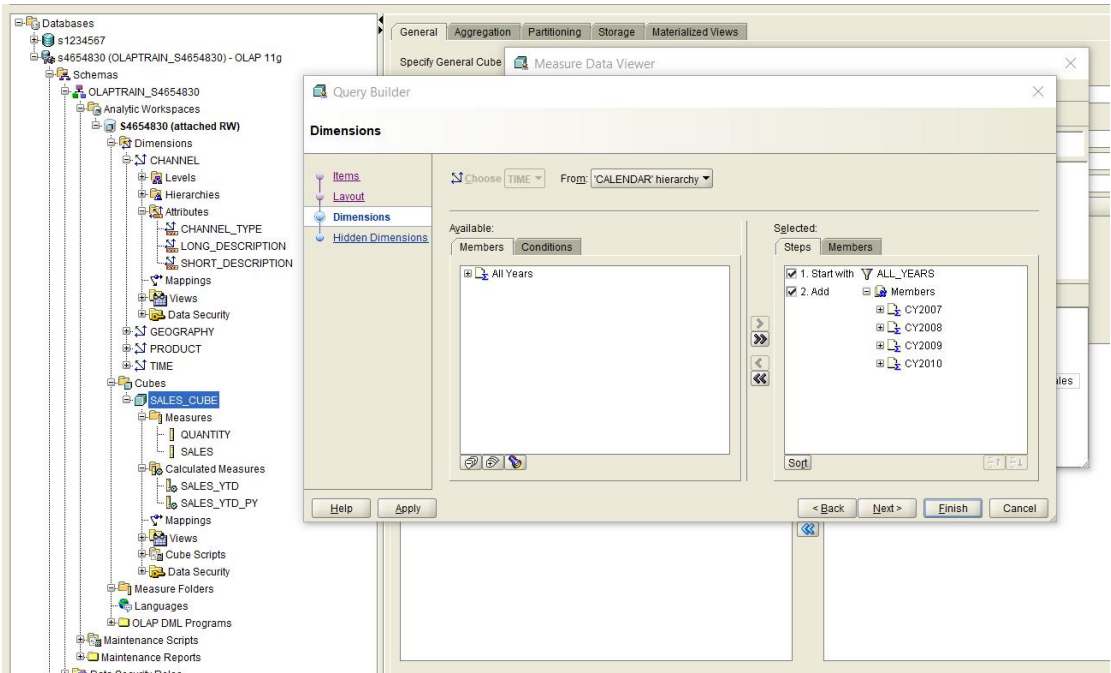
1. Choice time as the member with each year.



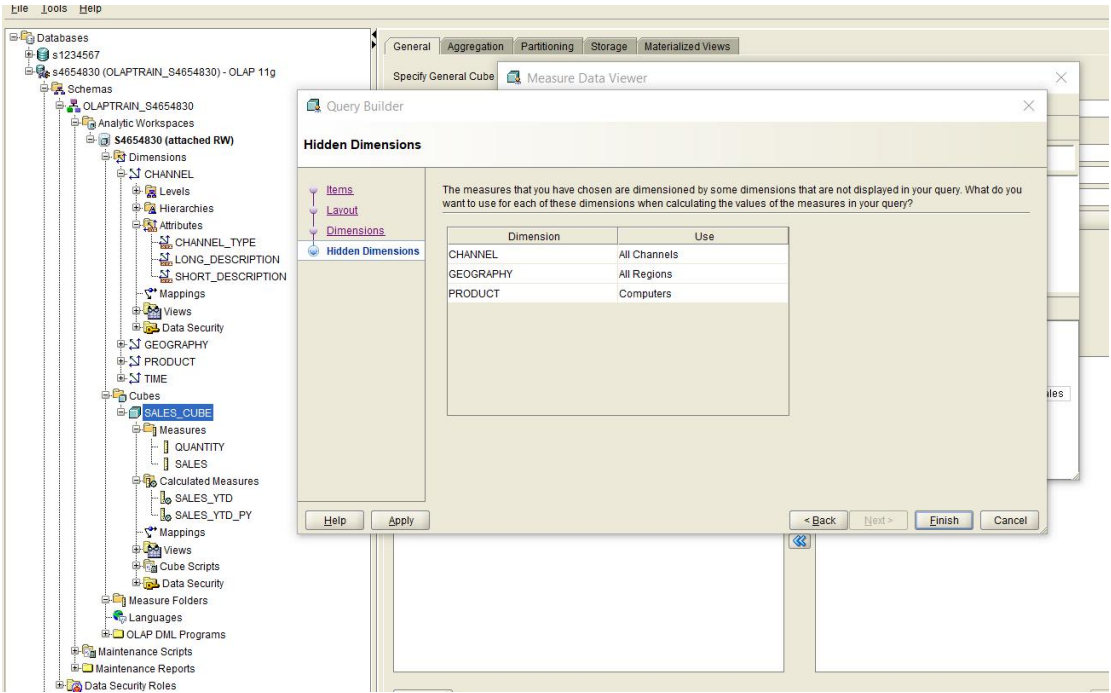
Set column and row



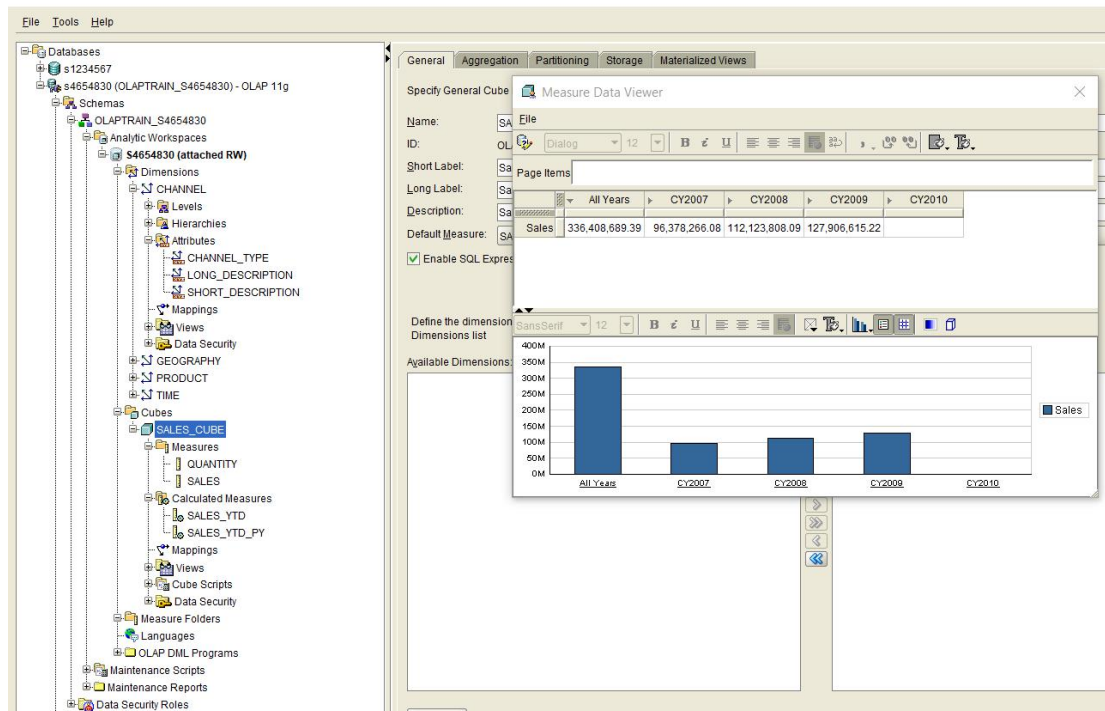
Set the clown



Check version

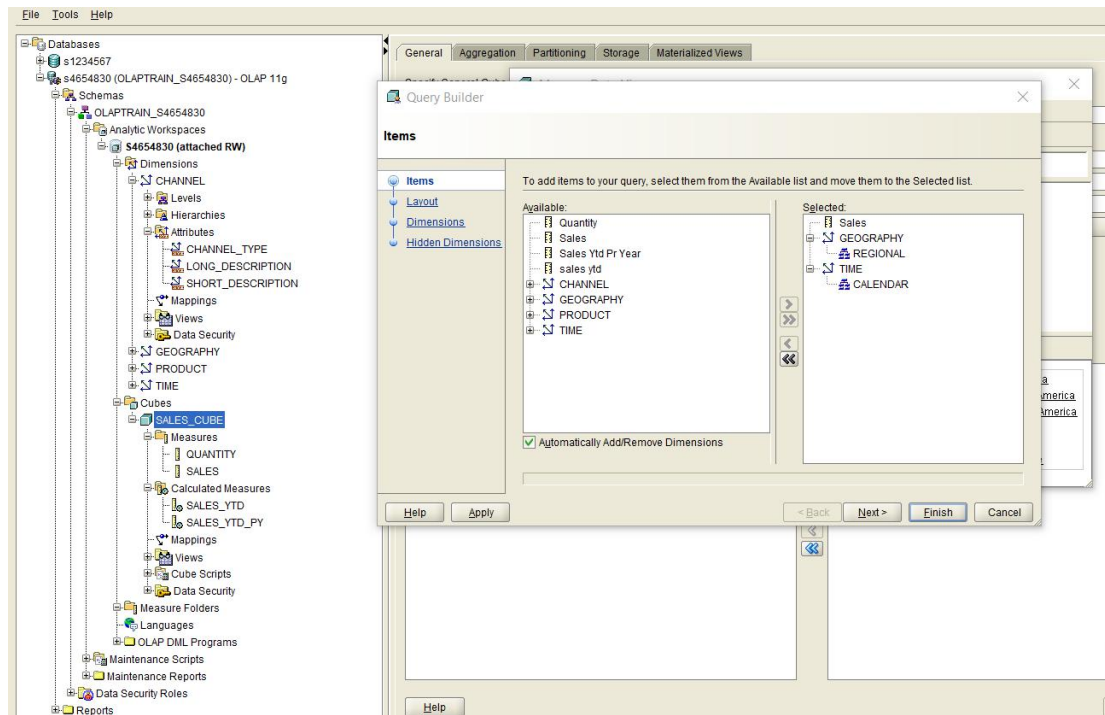


Result for first version

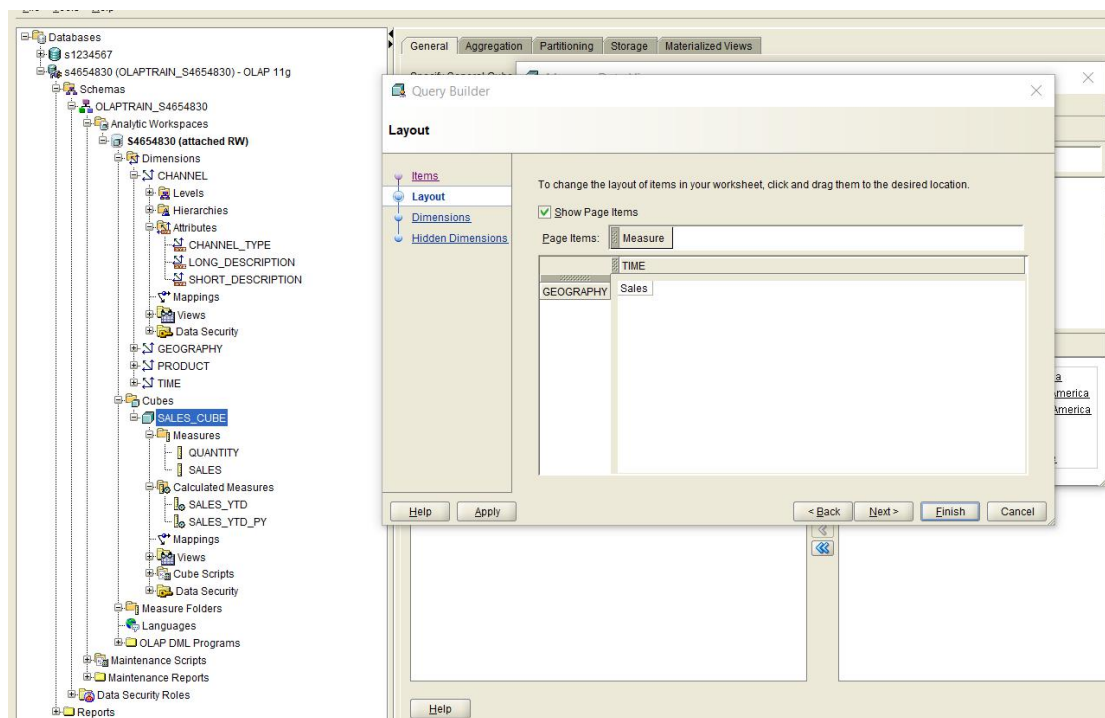


For the second version:

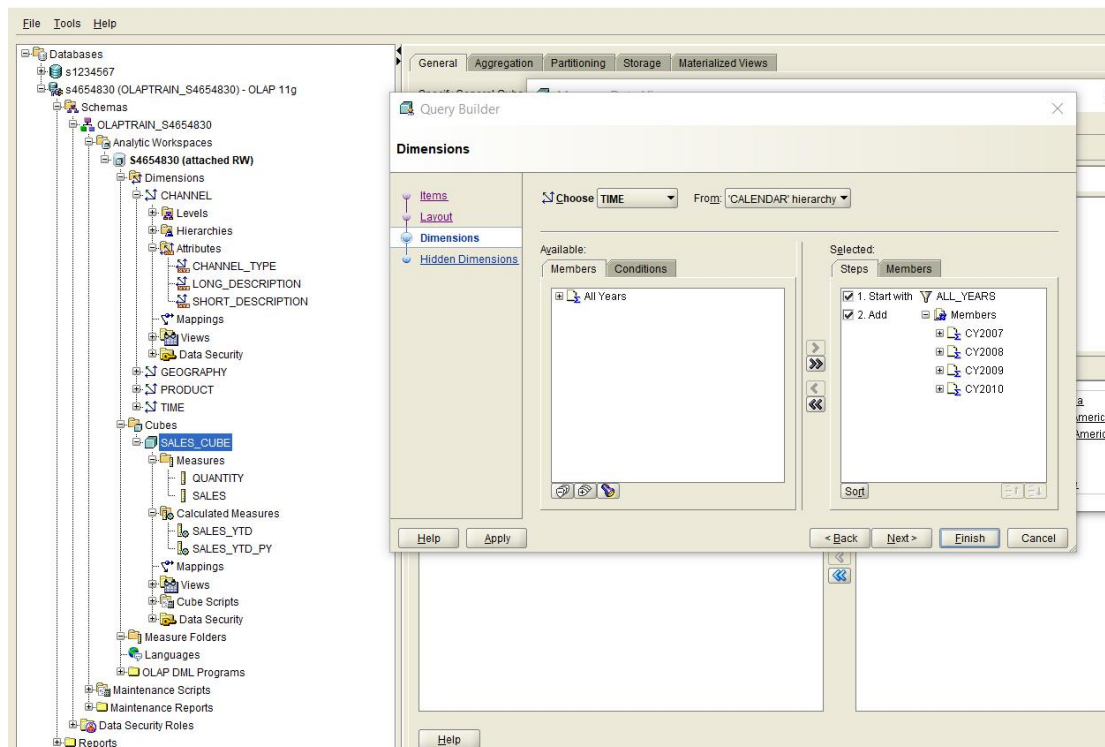
Select the TIME and GEORGAPHY import



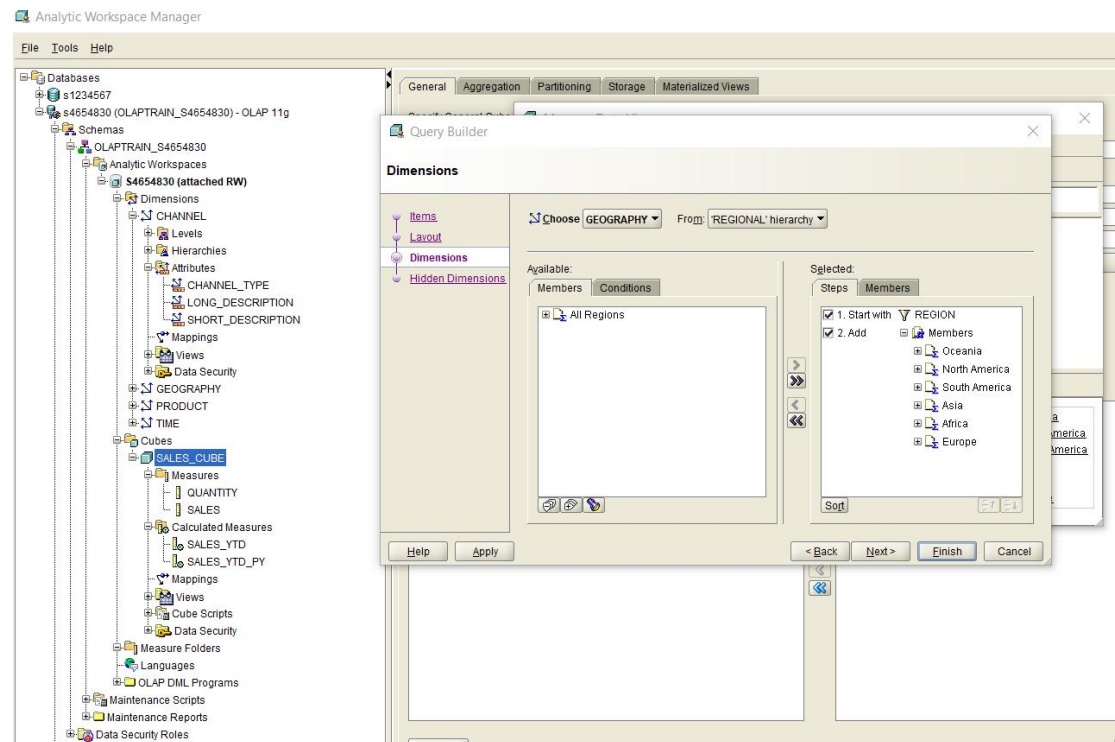
Set clown and row



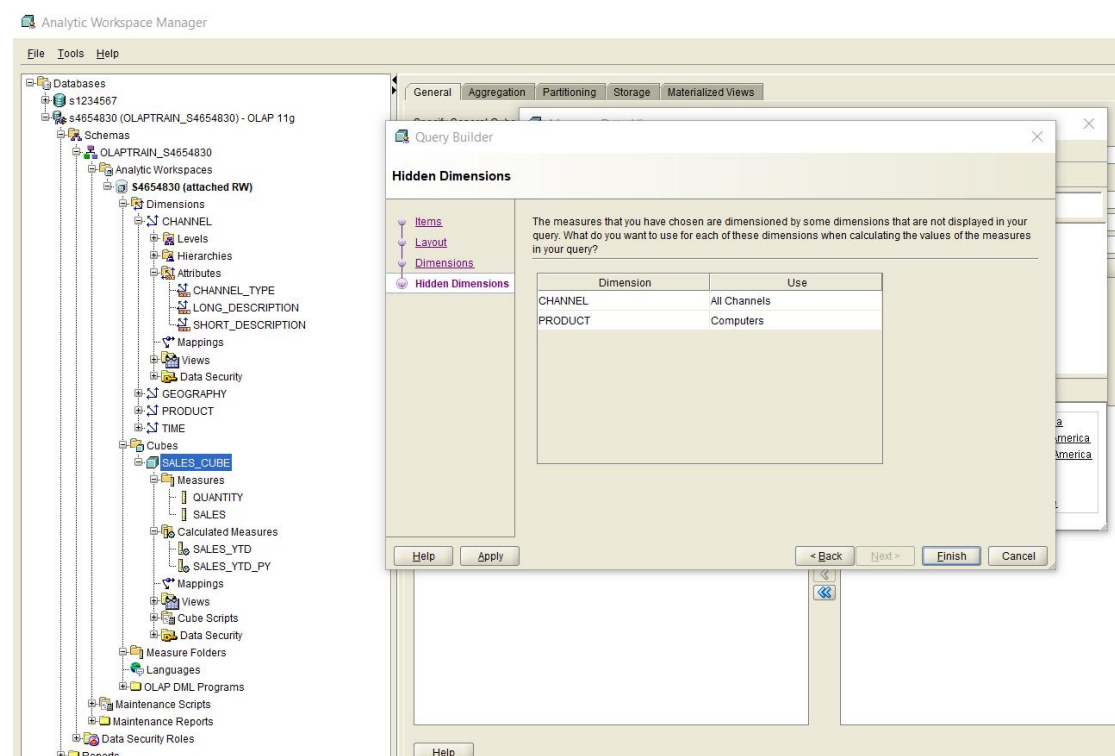
Add each member for TIME



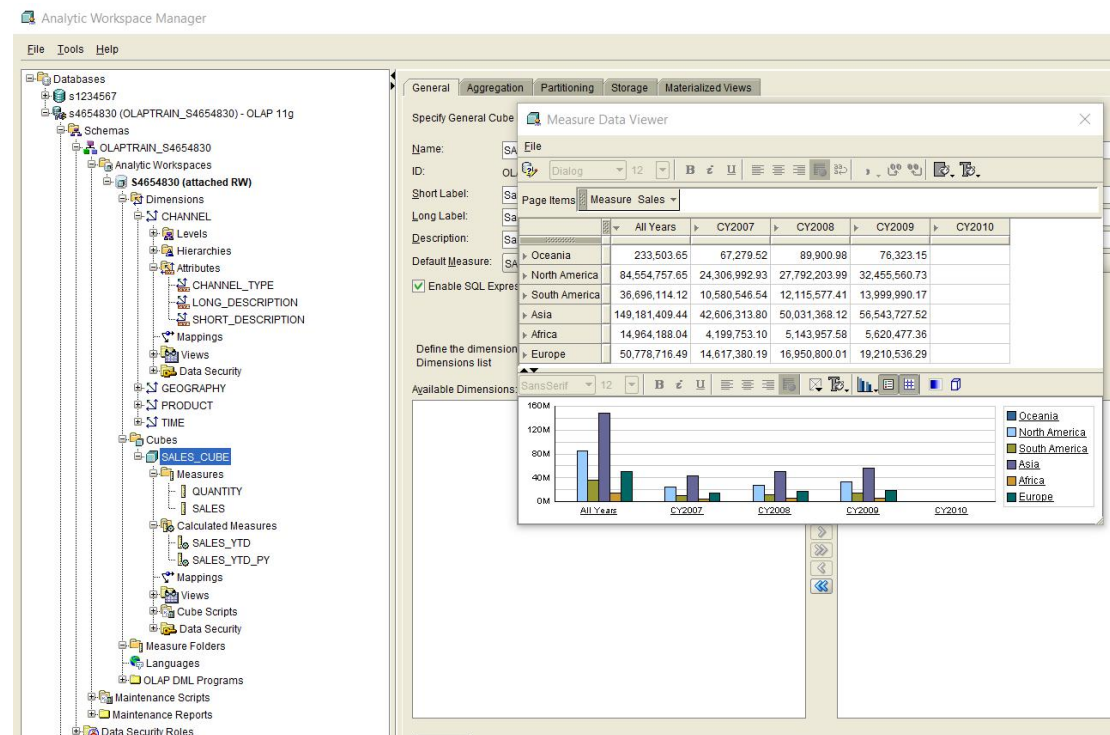
Add each member for each REGION



Check the version structure

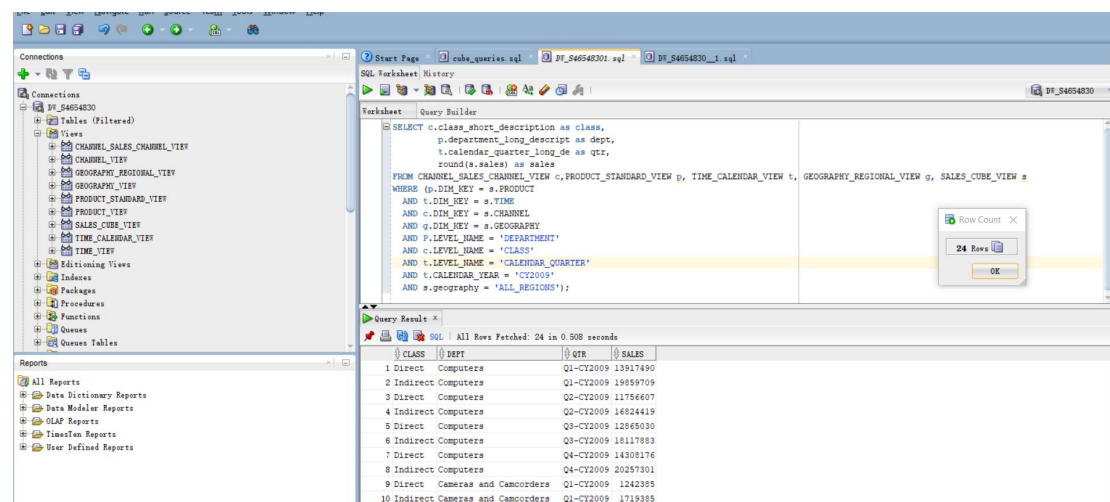


Result for version two



Task 4

1)



2)

Connections

DF_S4654830

Views (Filtered)

- CHANNEL_SALES_CHANNEL_VIEF
- CHANNEL_VIEF
- GEOGRAPHY_REGIONAL_VIEF
- GEOGRAPHY_VIEF
- PRODUCT_STANDARD_VIEF
- PRODUCT_VIEF
- SALES_CUBE_VIEF
- TIME_CALENDAR_VIEF
- TIME_VIEF

Editing Views

Indexes

Packages

Procedures

Functions

Reports

All Reports

- Data Dictionary Reports
- Data Modeler Reports
- OLAP Reports
- Timeline Reports
- User Defined Reports

SQL Worksheet History

DF_S46548301.sql

DF_S4654830_1.sql

DF_S4654830

Worksheet

Query Builder

```
round(s.SALES_YTD) as ytd
FROM CHANNEL_VIEF c,
PRODUCT_STANDARD_VIEF p,
TIME_CALENDAR_VIEF t,
GEOGRAPHY_REGIONAL_VIEF g,
SALES_CUBE_VIEF s
WHERE (p.DIM_KEY = s.PRODUCT
AND c.DIM_KEY = s.CHANNEL
AND g.DIM_KEY = s.GEOGRAPHY
AND t.DIM_KEY = s.TIME
AND p.LEVEL_NAME = 'DEPARTMENT'
AND c.LEVEL_NAME = 'ALL CHANNELS'
AND g.LEVEL_NAME = 'REGION'
AND t.LEVEL_NAME in ('CALENDAR_QUARTER','MONTH','CALENDAR_YEAR')
AND t.LONG_DESCRIPTION in ('Nov-2009','Q2-CY2009','CY2009'))
))
```

Row Count

54 Rows

OK

Query Results: X

SQL | All Rows Fetched: 54 in 0.37 seconds

	GEOGRAPHY	PRODUCT	TIME	SALES	YTD
42	North America	Portable Music and Video	Nov-2009	380181	4000738
43	South America	Portable Music and Video	CY2009	1978079	1978079
44	South America	Portable Music and Video	Q2-CY2009	447312	760379
45	South America	Portable Music and Video	Nov-2009	171085	1748865
46	Asia	Portable Music and Video	CY2009	7905262	7905262
47	Asia	Portable Music and Video	Q2-CY2009	1752676	3820603