TASK 1

SALES_CUBE Mapping

SALES_YTD Definition

SALES_YTD_PY Definition

General

Specify General Calculated Measure Information

Name: SALES_YTD_PY
ID: OLAPTRAIN_S4761003.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

References | Dependencies | Expressions

Create	Name	Short Label	Long Label	Description	Expression
	SALES_YTD	sales ytd	sales ytd	sales ytd	SUM(OLAPTRAIN_S4761003.SALES_CUBE.SALES) OVER (HIERARCHY OLAPTRAIN_S4761003."TIME".CALENDA...
	SALES	Sales	Sales	Sales	

Help | Apply | Revert

TASK 2

Maintainance Record

General | Aggregation | Partitioning | Storage | Materialized Views

Specify General Cube Information

Name: SALES_CUBE
ID: OLAPTRAIN_S4761003.SALES_CUBE

Maintenance Log ×

Maintenance Steps — 28 of 28 Completed — Maintenance Load Summary — Refresh: 5

Object	Object Type	Partition	Rows Added	Rows Deleted	Rows Reject...	Refresh Method
CHANNEL	DIMENSION		0	0	0	COMPLETE
TIME	DIMENSION		0	0	0	COMPLETE
GEOGRAPHY	DIMENSION		0	0	0	COMPLETE
PRODUCT	DIMENSION		2903	0	0	COMPLETE
SALES_CUBE	CUBE	P4:CY20...	0	0	0	COMPLETE
SALES_CUBE	CUBE	P3:CY20...	541408	0	0	COMPLETE
SALES_CUBE	CUBE	P2:CY20...	502806	0	0	COMPLETE
SALES_CUBE	CUBE	P1:CY20...	462976	0	0	COMPLETE
SALES_CUBE	CUBE	P0	0	0	0	COMPLETE

Maintenance steps:

Object	Partition	Status
Maintenance Id 148		Succeeded
⊟ CHANNEL		
LOAD NO SYNCH		Succeeded
COMPILE		Succeeded
UPDATE		Succeeded
⊟ TIME		
LOAD NO SYNCH		Succeeded
COMPILE		Succeeded
UPDATE		Succeeded
⊟ GEOGRAPHY		
LOAD NO SYNCH		Succeeded
COMPILE		Succeeded
UPDATE		Succeeded
⊟ PRODUCT		
LOAD NO SYNCH		Succeeded
COMPILE		Succeeded
UPDATE		Succeeded

Maintenance Status ×
Maintenance Completed
OK

Summary Log | Detailed Log | Rejected Record Log

| Maint Id	Object	Object Type	Partition	Operation	Start Date	Start Time	End Time	Elapsed Time	Detail
148	PRODUCT	DIMENSION		UPDATE	01/SEP/22	02:34:06 PM	02:34:12 PM	5.62	
148	SALES_CUBE	CUBE	P4:CY...	LOAD	01/SEP/22	02:34:12 PM	02:34:13 PM	1.43	
148	SALES_CUBE	CUBE	P4:CY...	LOAD - GENE...	01/SEP/22	02:34:12 PM			<SQL> <![CDATA[SELECT /*+ by...
148	SALES_CUBE	CUBE	P4:CY...	UPDATE	01/SEP/22	02:34:13 PM	02:34:14 PM	0.03	
148	SALES_CUBE	CUBE	P3:CY...	LOAD	01/SEP/22	02:34:14 PM	02:34:19 PM	5.32	
148	SALES_CUBE	CUBE	P3:CY...	LOAD - GENE...	01/SEP/22	02:34:14 PM			<SQL> <![CDATA[SELECT /*+ by...
148	SALES_CUBE	CUBE	P3:CY...	SOLVE	01/SEP/22	02:34:19 PM	02:34:41 PM	22.54	
148	SALES_CUBE	CUBE	P3:CY...	UPDATE	01/SEP/22	02:34:41 PM	02:34:42 PM	0.69	
148	SALES_CUBE	CUBE	P2:CY...	LOAD	01/SEP/22	02:34:42 PM	02:34:47 PM	4.92	
148	SALES_CUBE	CUBE	P2:CY...	LOAD - GENE...	01/SEP/22	02:34:42 PM			<SQL> <![CDATA[SELECT /*+ by...
148	SALES_CUBE	CUBE	P2:CY...	SOLVE	01/SEP/22	02:34:47 PM	02:35:04 PM	17.21	
148	SALES_CUBE	CUBE	P2:CY...	UPDATE	01/SEP/22	02:35:04 PM	02:35:05 PM	0.62	
148	SALES_CUBE	CUBE	P1:CY...	LOAD	01/SEP/22	02:35:05 PM	02:35:10 PM	5.29	
148	SALES_CUBE	CUBE	P1:CY...	LOAD - GENE...	01/SEP/22	02:35:05 PM			<SQL> <![CDATA[SELECT /*+ by...

Help | Abort | Close

Help | Apply | Revert

TASK 3

Roll-up operation

Before view - Here we can see the sales and quantity of different regions in their respective Yearly Quarters
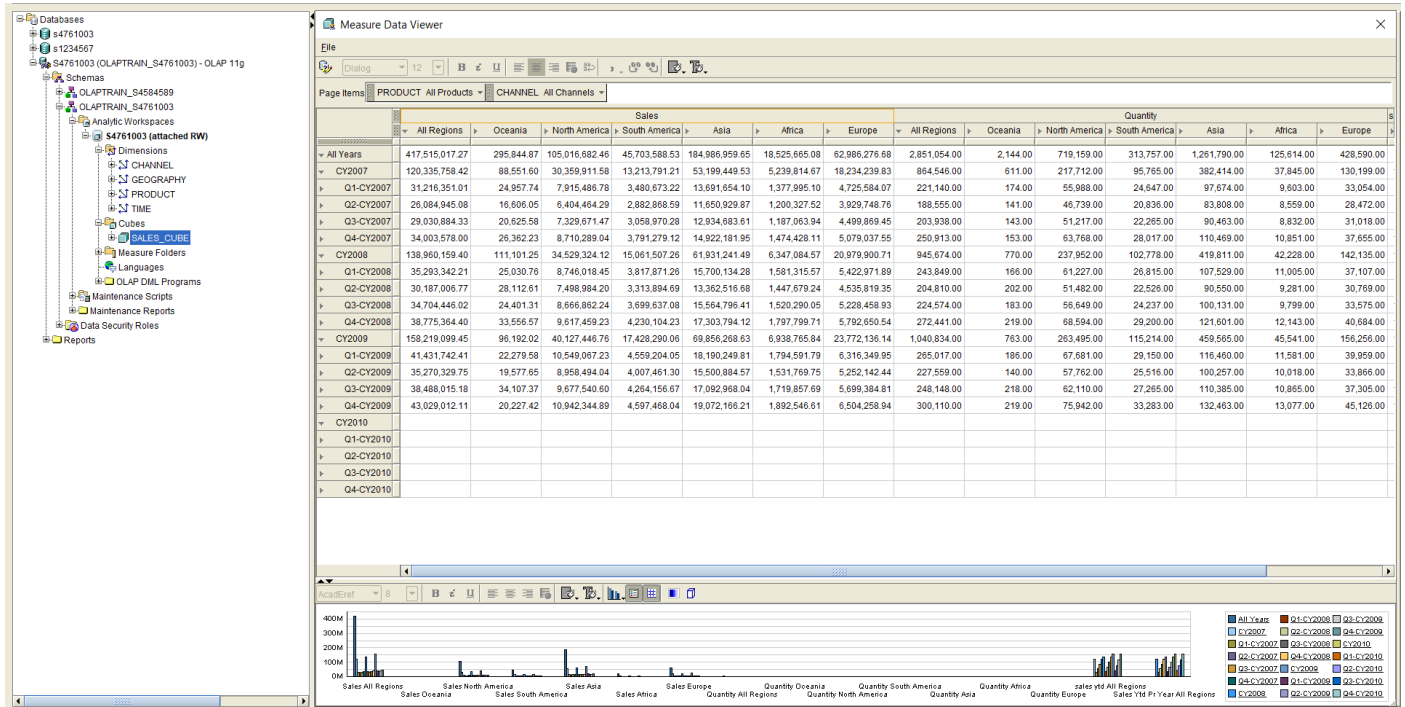
After view - Here we can see the sales and quantity for ALL Region in each Year
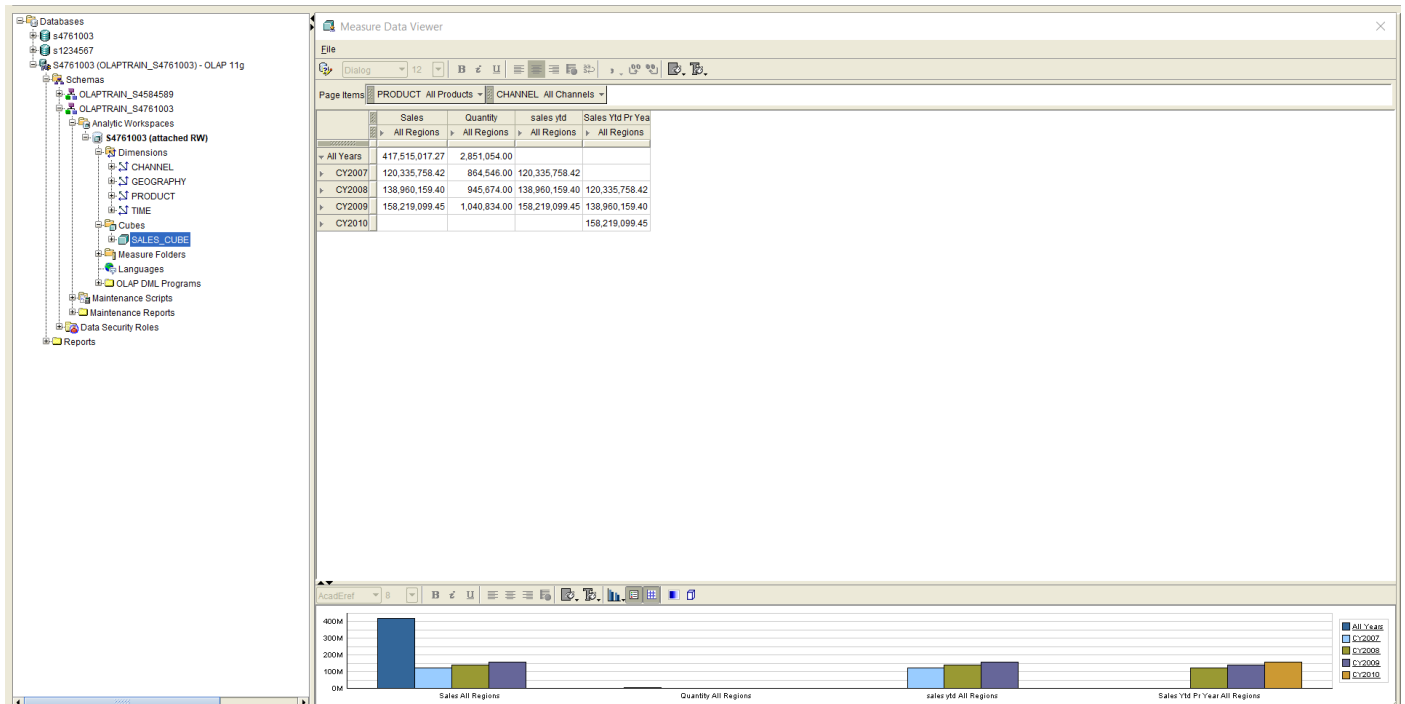
- Individual regions rolled into ALL Region
- Yearly Quarters rolled into Years

Drill-down operation

Before view - Here we can see the sales and quantity of different product category in each Year
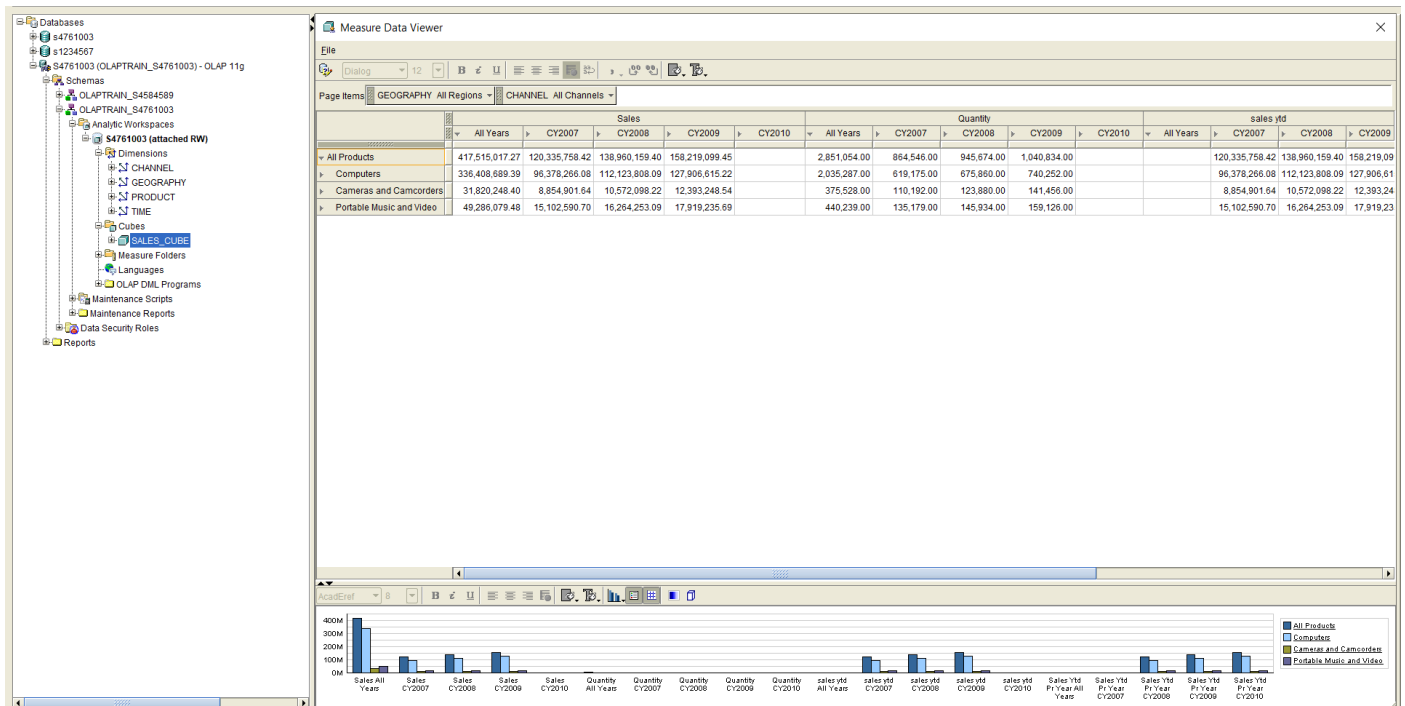
After view - Here we can see the sales and quantity of different products in each Year's Quarter
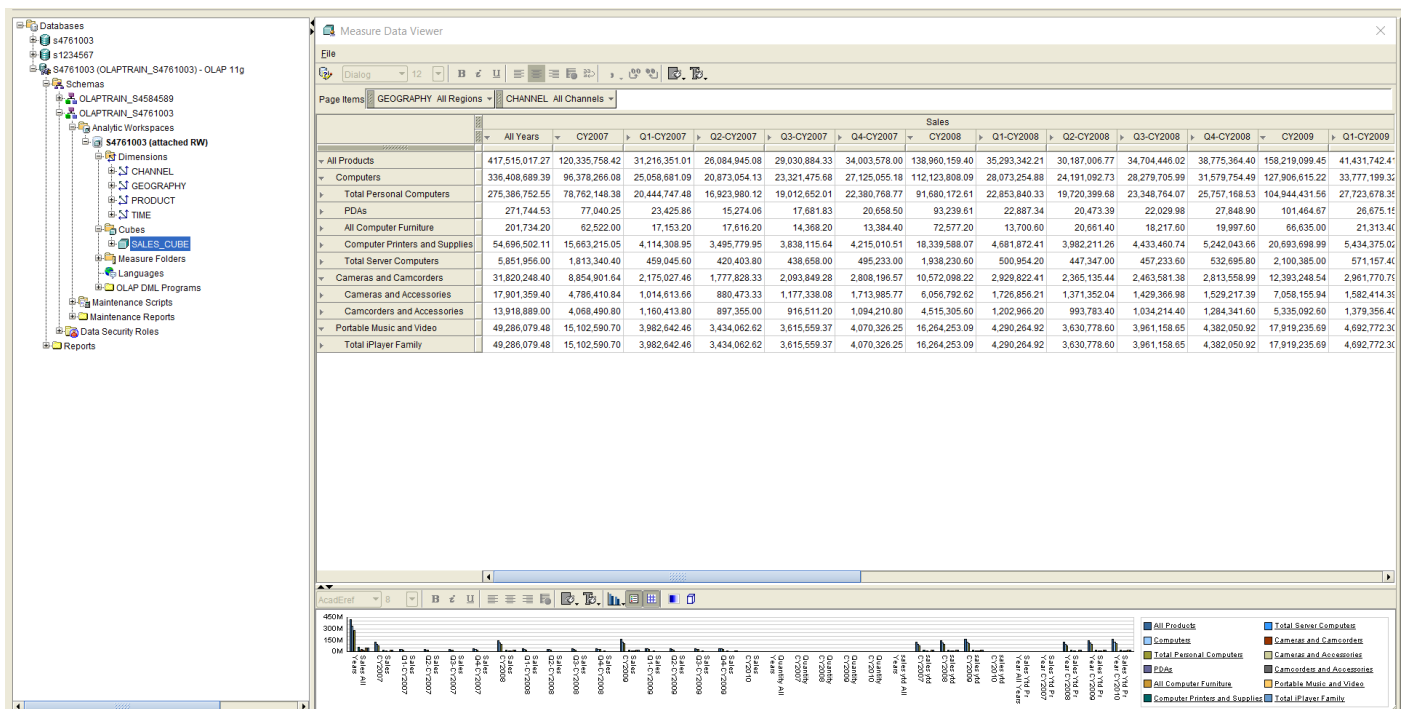
- Product categories drilled down into various Products
- Years drilled down into each year's quarters

Pivot operation

Before view – Sales of Products vs Years
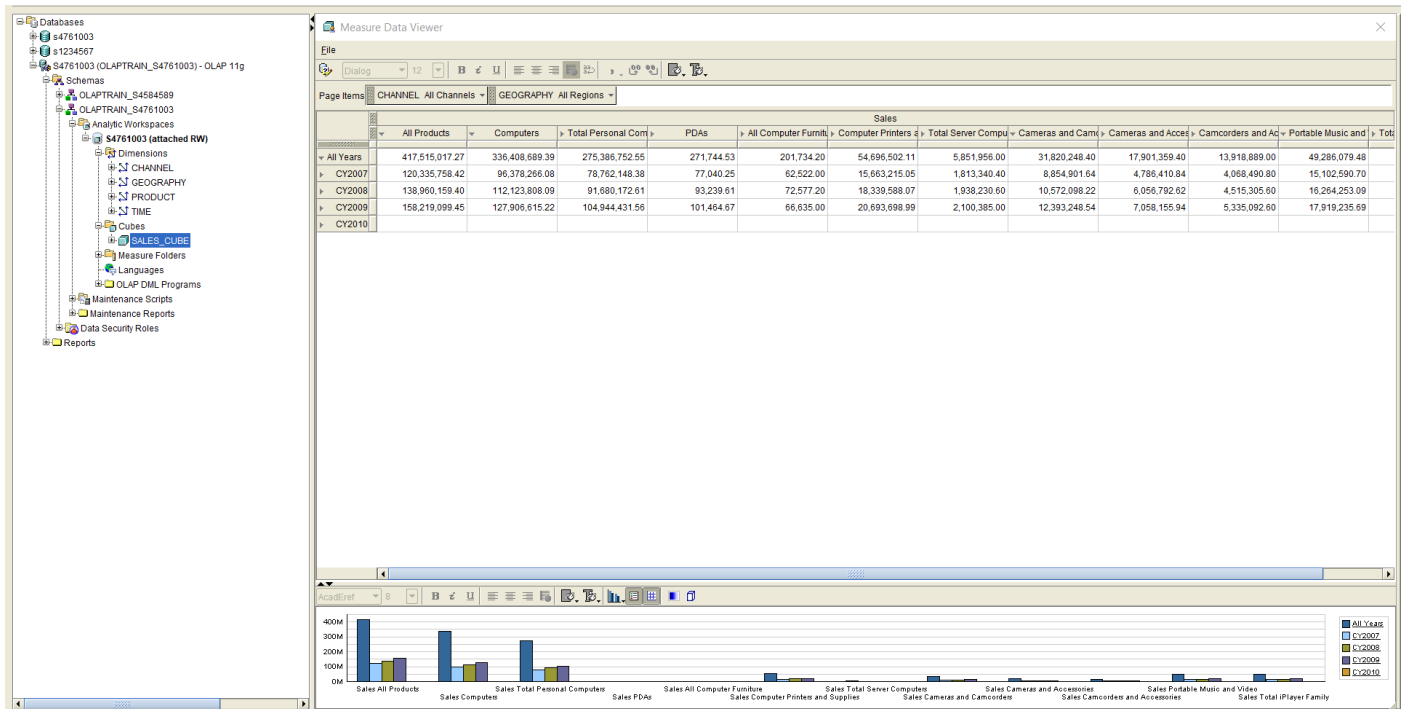
After view – Sales in Regions vs Years
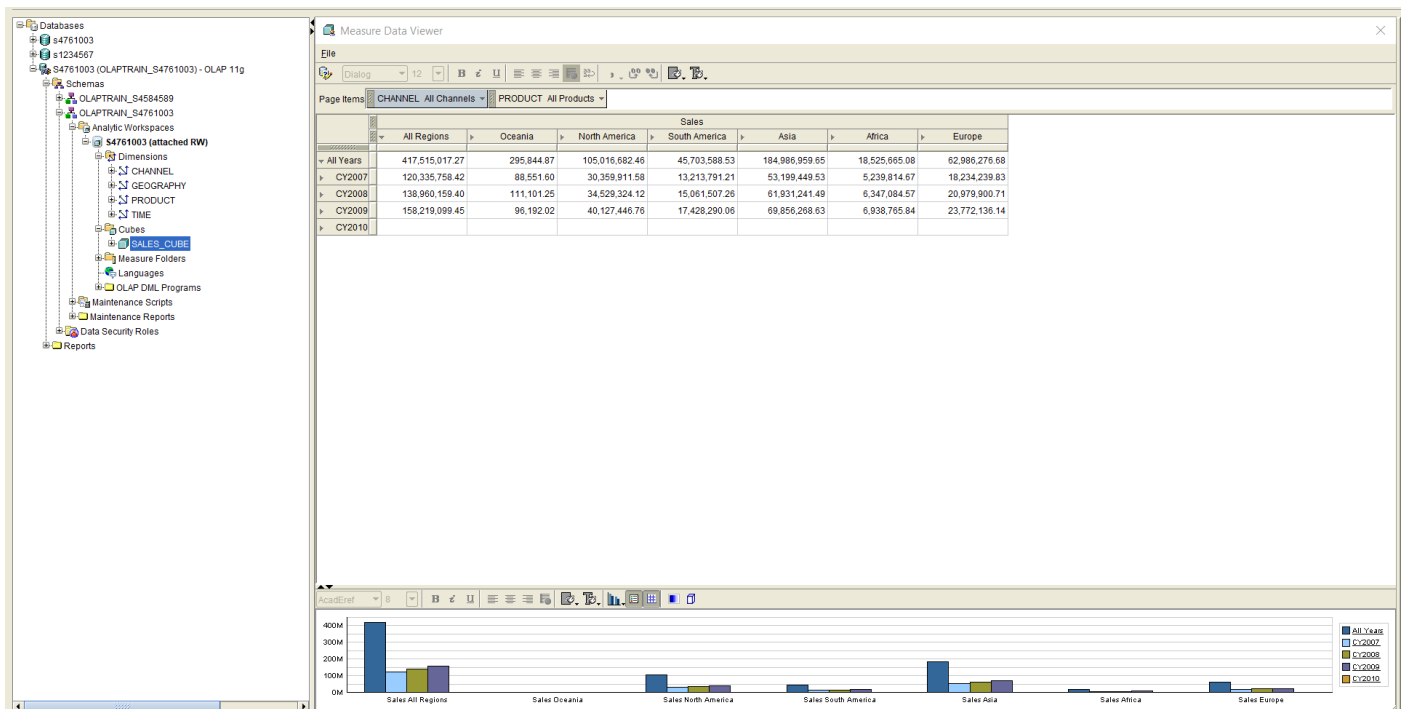
- Keeping the year as constant, Products have been pivoted with Region

View One: Quantity across all years, and broken down by each CY (2007–2010)
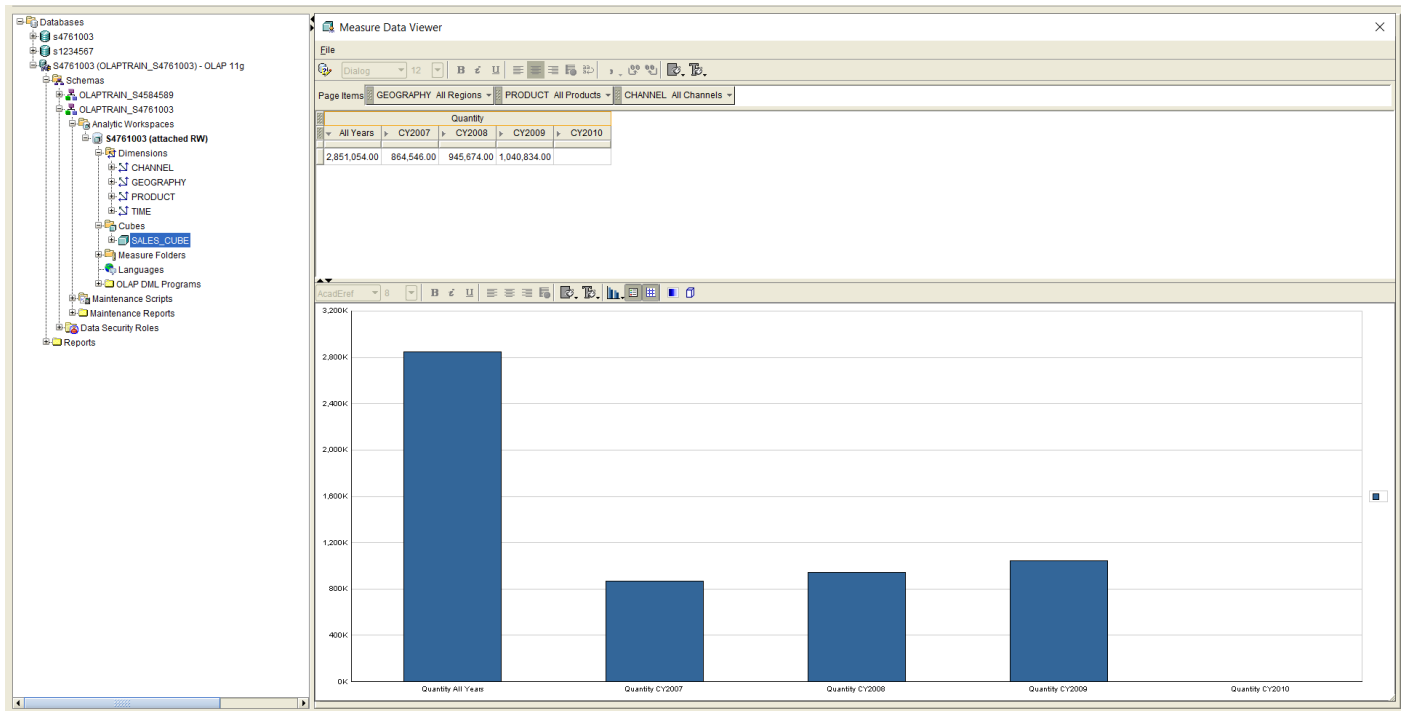
View Two: Quantity broken down by each CY (2007–2010), and grouped by location
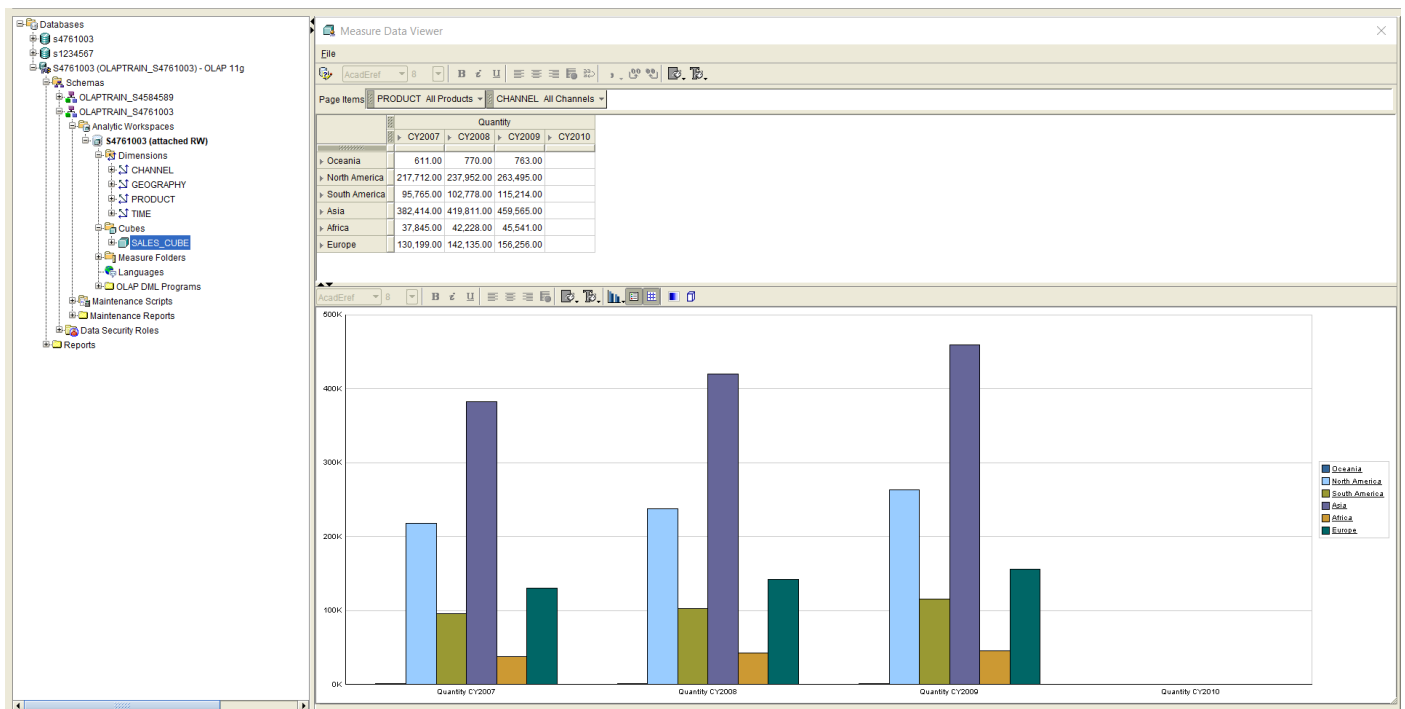
TASK 4

Query -

```
select c.class_short_description as class,
    p.department_long_descript as dept,
    t.calendar_quarter_long_de as qtr,
    round(s.sales) as sales
from channel_sales_channel_view c,
    product_standard_view p,
    geography_regional_view g,
    time_view t,
    sales_cube_view s
where s.product = p.dim_key
    and p.level_name = 'DEPARTMENT'
    and s.channel = c.dim_key
    and c.level_name = 'CLASS'
    and s.geography = g.dim_key
    and g.level_name = 'ALL_REGIONS'
    and s.time = t.dim_key
    and t.level_name = 'CALENDAR_QUARTER'
    and t.calendar_quarter_short_d like '%CY2009%'
order by c.class_short_description,
    p.department_long_descript,
    t.calendar_quarter_long_de;
```

OUTPUT 1

OUTPUT 2

Oracle Connections
- DW_S4761003
  - Tables (Filtered)
  - Views
    - CHANNEL_SALES_CHANNEL_VIEW
    - CHANNEL_VIEW
    - GEOGRAPHY_REGIONAL_VIEW
    - GEOGRAPHY_VIEW
    - PRODUCT_STANDARD_VIEW
    - PRODUCT_VIEW
    - SALES_CUBE_VIEW
    - TIME_CALENDAR_VIEW
    - TIME_VIEW
  - Indexes
  - Packages
  - Procedures
  - Functions
  - Operators

Reports

All Reports
- Analytic View Reports
- Data Dictionary Reports
- Data Modeler Reports
- OLAP Reports
- TimesTen Reports
- User Defined Reports

DW_S4761003

Worksheet | Query Builder

```sql
select c.class_short_description as class,
```

Query Result

SQL | All Rows Fetched: 24 in 0.015 seconds

	CLASS	DEPT	QTR	SALES
1	Direct	Cameras and Camcorders	Q1-CY2009	1242385
2	Direct	Cameras and Camcorders	Q2-CY2009	1125521
3	Direct	Cameras and Camcorders	Q3-CY2009	1354490
4	Direct	Cameras and Camcorders	Q4-CY2009	1443028
5	Direct	Computers	Q1-CY2009	13917490
6	Direct	Computers	Q2-CY2009	11756607
7	Direct	Computers	Q3-CY2009	12865030
8	Direct	Computers	Q4-CY2009	14308176
9	Direct	Portable Music and Video	Q1-CY2009	1945639
10	Direct	Portable Music and Video	Q2-CY2009	1666430
11	Direct	Portable Music and Video	Q3-CY2009	1812649
12	Direct	Portable Music and Video	Q4-CY2009	2045273
13	Indirect	Cameras and Camcorders	Q1-CY2009	1719385
14	Indirect	Cameras and Camcorders	Q2-CY2009	1573766
15	Indirect	Cameras and Camcorders	Q3-CY2009	1837557
16	Indirect	Cameras and Camcorders	Q4-CY2009	2097116
17	Indirect	Computers	Q1-CY2009	19859709
18	Indirect	Computers	Q2-CY2009	16824419
19	Indirect	Computers	Q3-CY2009	18117883
20	Indirect	Computers	Q4-CY2009	20257301
21	Indirect	Portable Music and Video	Q1-CY2009	2747134
22	Indirect	Portable Music and Video	Q2-CY2009	2323586
23	Indirect	Portable Music and Video	Q3-CY2009	2500406
24	Indirect	Portable Music and Video	Q4-CY2009	2878119