

Sistemas MultiDimensionales

Práctica 3_3. Pentaho Aggregation Designer,
MDX, SQL3 (PostgreSQL)

Ejercicio: MDX, SQL3 y Agregados



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Consulta MDX

Título: mujeres por decenio y municipio.

Consulta:

```
SELECT
    {[Measures].[Mujeres]} ON COLUMNS,
    NON EMPTY
    CrossJoin(
        [Cuando].[Decenio].Members,
        [Donde].[Municipio].Members
    ) ON ROWS
FROM [Padron]
```

The screenshot shows the Schema Workbench application window. The title bar reads "Schema Workbench". The menu bar includes "File", "Edit", "View", "Options", "Windows", and "Help". The toolbar contains icons for file operations and a "Connect" button. The main window displays an MDX query titled "MDX Query - connected to madrid_anarajer.xml". The query is identical to the one shown in the previous block. Below the query editor, the results are displayed as a list of rows, each with a row number and a numerical value. The values represent the count of women for each decade and municipality combination.

| Row | Value |
|-------|---------|
| #679: | 7.563 |
| #680: | 333.998 |
| #681: | 7.119 |
| #682: | 9.375 |
| #683: | 1.208 |
| #684: | 22.334 |
| #685: | 11.423 |
| #686: | 24.132 |
| #687: | 24.832 |
| #688: | 11.744 |
| #689: | 33.460 |
| #690: | 202.594 |
| #691: | 17.314 |
| #692: | 6.600 |
| #693: | 3.934 |
| #694: | 3.977 |
| #695: | 1.652 |
| #696: | 155.467 |
| #697: | 4.334 |
| #698: | 1.147 |
| #699: | 5.482 |
| #700: | 13.969 |
| #701: | 63.307 |
| #702: | 20.954 |
| #703: | 3.420 |
| #704: | 5.598 |
| #705: | 15.932 |
| #706: | 3.311 |
| #707: | 7.743 |
| #708: | 45.209 |
| #709: | 6.845 |
| #710: | 3.263 |
| #711: | 1.521 |
| #712: | 2.549 |
| #713: | 8.489 |
| #714: | 1.873 |

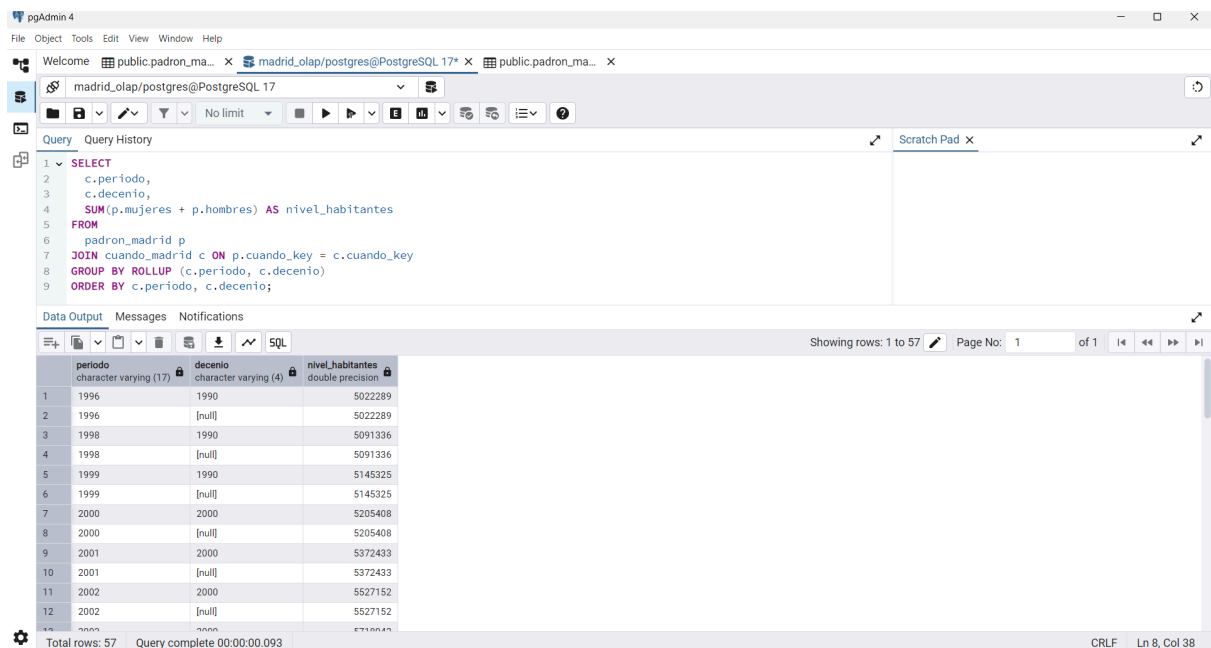
Execute

Consulta SQL3 (GROUP BY ROLLUP)

Título: nivel de habitantes por decenio y periodo.

Consulta:

```
SELECT
  c.periodo,
  c.decenio,
  SUM(p.muñeres + p.hombres) AS nivel_habitantes
FROM
  padron_madrid p
JOIN cuando_madrid c ON p.cuando_key = c.cuando_key
GROUP BY ROLLUP (c.periodo, c.decenio)
ORDER BY c.periodo, c.decenio;
```

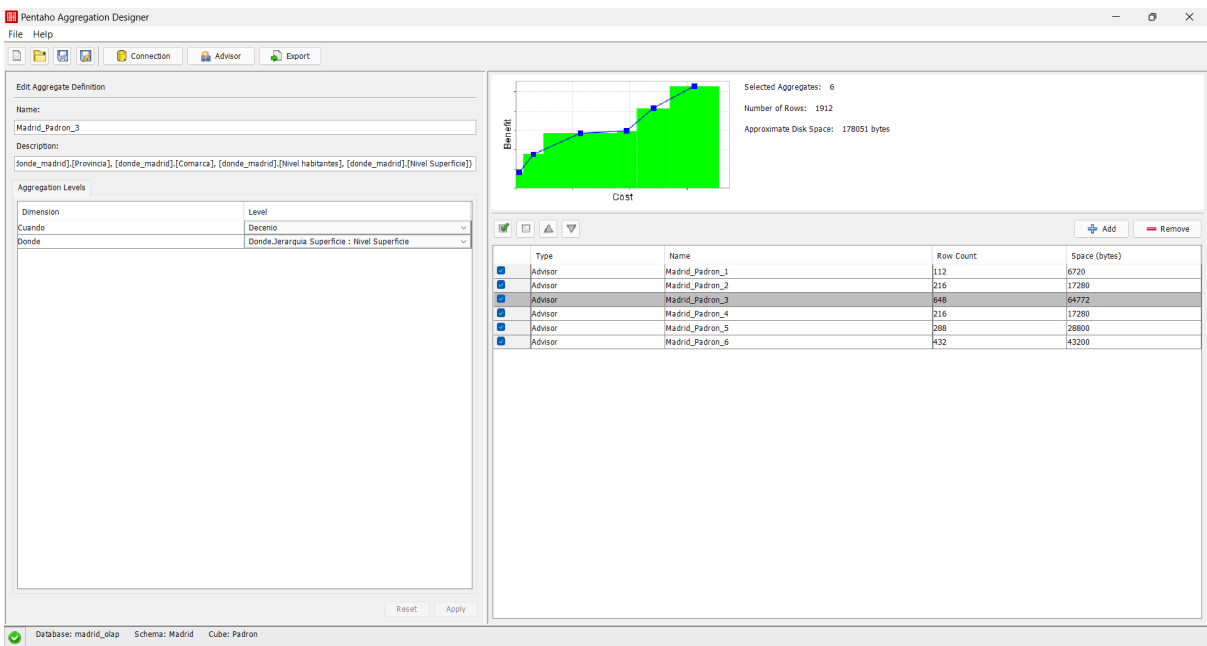


The screenshot shows the pgAdmin 4 interface. The query editor contains the SQL query from the previous block. The 'Data Output' tab is active, displaying the results of the query. The results are shown in a table with 3 columns: 'periodo' (character varying (17)), 'decenio' (character varying (4)), and 'nivel_habitantes' (double precision). The table contains 12 rows of data, showing the population level for different periods and decades.

| | periodo | decenio | nivel_habitantes |
|----|---------|---------|------------------|
| 1 | 1996 | 1990 | 5022289 |
| 2 | 1996 | [null] | 5022289 |
| 3 | 1998 | 1990 | 5091336 |
| 4 | 1998 | [null] | 5091336 |
| 5 | 1999 | 1990 | 5145325 |
| 6 | 1999 | [null] | 5145325 |
| 7 | 2000 | 2000 | 5205408 |
| 8 | 2000 | [null] | 5205408 |
| 9 | 2001 | 2000 | 5372433 |
| 10 | 2001 | [null] | 5372433 |
| 11 | 2002 | 2000 | 5527152 |
| 12 | 2002 | [null] | 5527152 |

Total rows: 57 Query complete 00:00:00.093

Obtención de los agregados



El agregado con mayor número de instancias es el tercero.

| Table name | Total Size | Tuples inserted | Tuples updated | Tuples deleted | Tuples HOT updated | Live tuples | Dead tuples |
|-----------------|------------|-----------------|----------------|----------------|--------------------|-------------|-------------|
| Madrid_Padron_1 | 8 KB | 0 | 0 | 0 | 0 | 0 | 0 |
| Madrid_Padron_2 | 8 KB | 0 | 0 | 0 | 0 | 0 | 0 |
| Madrid_Padron_3 | 8 KB | 0 | 0 | 0 | 0 | 0 | 0 |
| Madrid_Padron_4 | 8 KB | 0 | 0 | 0 | 0 | 0 | 0 |
| Madrid_Padron_5 | 8 KB | 0 | 0 | 0 | 0 | 0 | 0 |
| Madrid_Padron_6 | 8 KB | 0 | 0 | 0 | 0 | 0 | 0 |
| cuando_madrid | 24 KB | 140 | 0 | 0 | 0 | 140 | 0 |
| donde_madrid | 80 KB | 306 | 0 | 0 | 0 | 306 | 0 |
| padron_madrid | 480 KB | 5012 | 0 | 0 | 0 | 5012 | 0 |

Se han añadido a la base de datos todos los 6 agregados recomendados.