"Taller 2 – SQL Parte 2"

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1 Introducción

Este documento presenta los resultados de un ejercicio de formulación de consultas SQL sobre el catálogo del proyecto Parranderos en el curso Sistemas Transaccionales de la Universidad de Los Andes.

2 Desarrollo

2.1 Requerimiento de consulta 1

```
SELECT NOMBRETABLA, NUMCOLUMNAS, NUMCOLSNULL, ULTIMO ANALISIS
  FROM (
          SELECT TABLE NAME AS NOMBRETABLA, COUNT(*) AS NUMCOLUMNAS
          FROM ALL TAB COLUMNS
          WHERE OWNER = 'PARRANDEROS'
          GROUP BY TABLE NAME
      ) TAB INF
      LEFT OUTER JOIN (
          SELECT TABLE NAME, COUNT (NULLABLE) AS NUMCOLSNULL
          FROM ALL TAB COLUMNS
          WHERE OWNER = 'PARRANDEROS' AND
              NULLABLE = 'Y'
          GROUP BY TABLE NAME
      ) NLLVAL
      ON NLLVAL.TABLE NAME = TAB INF.NOMBRETABLA
      LEFT OUTER JOIN (
          SELECT TABLE NAME,
                                 MAX (TO CHAR (LAST ANALYZED, 'DD-MON-YYYY
HH24:MI:SS')) AS "ULTIMO ANALISIS"
          FROM DBA TAB COL STATISTICS
          WHERE OWNER = 'PARRANDEROS'
```

```
GROUP BY TABLE_NAME

) US_OBJ

ON US_OBJ.TABLE_NAME = TAB_INF.NOMBRETABLA

ORDER BY NOMBRETABLA ASC;
```

```
ALTER SESSION SET CURRENT_SCHEMA = PARRANDEROS;
   SELECT NOMBRETABLA, NUMCOLUMNAS, NUMCOLSNULL, ULTIMO ANALISIS
            SELECT TABLE NAME AS NOMBRETABLA, COUNT(*) AS NUMCOLUMNAS
            FROM ALL_TAB_COLUMNS
            WHERE OWNER = 'PARRANDEROS'
            GROUP BY TABLE_NAME
        ) TAB INF
        LEFT OUTER JOIN (
            SELECT TABLE NAME, COUNT (NULLABLE) AS NUMCOLSNULL
            FROM ALL_TAB_COLUMNS
            WHERE OWNER = 'PARRANDEROS' AND
               NULLABLE = 'Y'
            GROUP BY TABLE NAME
         ON NLLVAL.TABLE_NAME = TAB_INF.NOMBRETABLA
        LEFT OUTER JOIN (
            SELECT TABLE NAME, MAX(TO CHAR(LAST ANALYZED, 'DD-MON-YYYY HH24:MI:SS')) AS "ULTIMO ANALISIS"
            FROM DBA_TAB_COL_STATISTICS
            WHERE OWNER = 'PARRANDEROS'
            GROUP BY TABLE NAME
         ) US_OBJ
         ON US OBJ.TABLE NAME = TAB INF.NOMBRETABLA
     ORDER BY NOMBRETABLA ASC;
📌 🚇 🙌 攻 SQL | Todas las Filas Recuperadas: 7 en 0,382 segundos
    ♦ NOMBRETABLA ♦ NUMCOLUMNAS ♦ NUMCOLSNULL ♦ ULTIMO_ANALISIS
    1 BARES
                   5 4 28-SEP-2022 00:01:51
                            4 3 03-MAY-2022 00:00:12
   2 BEBEDORES
                           4 3 24-SEP-2020 00:00:15
4 1 23-SEP-2020 00:00:19
2 2 06-ABR-2022 00:00:13
   3 BEBIDAS
   4 FRECUENTAN
   5 GUSTAN
   6 SIRVEN
                             3 (null) 21-AGO-2020 00:00:36
                                         1 24-SEP-2020 00:00:15
    7 TIPO_BEBIDA
```

Figura 1: Requerimiento Consulta 1

2.2 Requerimiento de consulta 2

```
SELECT NOMBRETABLA, NOMBRECOLSPK, TIPODEDATO

FROM (

SELECT ALL_CONS_COLUMNS.TABLE_NAME AS NOMBRETABLA,

ALL_CONS_COLUMNS.COLUMN_NAME AS NOMBRECOLSPK

FROM ALL_CONSTRAINTS, ALL_CONS_COLUMNS

WHERE ALL_CONSTRAINTS.CONSTRAINT_TYPE = 'P' AND

ALL_CONSTRAINTS.CONSTRAINT_NAME =

ALL_CONS_COLUMNS.CONSTRAINT_NAME AND

ALL_CONSTRAINTS.OWNER = ALL_CONS_COLUMNS.OWNER_AND
```

```
ALL_CONS_COLUMNS.OWNER = 'PARRANDEROS'

) PKS

INNER JOIN (

SELECT TABLE_NAME, COLUMN_NAME, DATA_TYPE AS TIPODEDATO

FROM ALL_TAB_COLUMNS

WHERE OWNER = 'PARRANDEROS'

) DTYPE

ON PKS.NOMBRECOLSPK = DTYPE.COLUMN_NAME AND

PKS.NOMBRETABLA = DTYPE.TABLE_NAME

ORDER BY NOMBRETABLA;
```

```
Hoja de Trabajo Generador de Consultas
    ALTER SESSION SET CURRENT_SCHEMA = PARRANDEROS;
   SELECT NOMBRETABLA, NOMBRECOLSPK, TIPODEDATO
            SELECT ALL CONS COLUMNS.TABLE NAME AS NOMBRETABLA, ALL CONS COLUMN NAME AS NOMBRECOLSPK
           FROM ALL_CONSTRAINTS, ALL_CONS_COLUMNS
            WHERE ALL_CONSTRAINTS.CONSTRAINT_TYPE = 'P' AND
               ALL CONSTRAINTS.CONSTRAINT NAME = ALL CONS COLUMNS.CONSTRAINT NAME AND
               ALL_CONSTRAINTS.OWNER = ALL_CONS_COLUMNS.OWNER AND
               ALL_CONS_COLUMNS.OWNER = 'PARRANDEROS'
        ) PKS
        INNER JOIN (
            SELECT TABLE_NAME, COLUMN_NAME, DATA_TYPE AS TIPODEDATO
            FROM ALL TAB COLUMNS
            WHERE OWNER = 'PARRANDEROS'
        ON PKS.NOMBRECOLSPK = DTYPE.COLUMN NAME AND
        PKS.NOMBRETABLA = DTYPE.TABLE_NAME
     ORDER BY NOMBRETABLA;
Resultado de la Consulta X
📌 🚇 🙀 🗽 SQL | Todas las Filas Recuperadas: 12 en 5,631 segundos
   1 BARES ID NUMBER
                     NUMBER
   2 BEBEDORES ID
               ID
                             NUMBER
   3 BEBIDAS
   4 FRECUENTAN ID_BEBEDOR NUMBER
   5 FRECUENTAN ID_BAR NUMBER
   6 FRECUENTAN HORARIO
                              VARCHAR2
   7 GUSTAN ID_BEBIDA
                              NUMBER
                 ID_BEBEDOR NUMBER
   8 GUSTAN
  9 SIRVEN ID_BAR
10 SIRVEN ID_BEBIDA
11 SIRVEN HORARTO
                              NUMBER
                              NUMBER
                 HORARIO
                              VARCHAR2
   12 TIPO_BEBIDA ID
                              NUMBER
```

Figura 2: Requerimiento Consulta 2

2.3 Requerimiento de consulta 3

```
SELECT TABLE_NAME AS NOMBRETABLA, DATA_TYPE AS TIPODEDATOS, COUNT(DATA_TYPE) AS NUMCOLSTIPODATO, AVG(AVG_COL_LEN) AS PROMEDIOLONGITUDCOL FROM ALL TAB COLUMNS
```

```
WHERE OWNER = 'PARRANDEROS'

GROUP BY TABLE_NAME, DATA_TYPE

ORDER BY TABLE NAME;
```

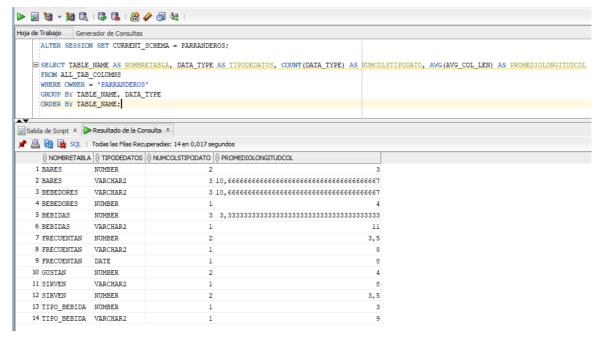


Figura 3: Requerimiento Consulta 3

2.4 Requerimiento de consulta 4

```
SELECT ALL_TAB_COLUMNS.TABLE_NAME AS NOMBRETABLA,
ALL_TAB_COLUMNS.COLUMN_NAME AS NOMBRECOLUMNA, DATA_TYPE AS TIPODEDATO, CASE

WHEN CONSTRAINT_NAME IS NULL THEN

'NO TIENE'

ELSE

CONSTRAINT_NAME

END AS NOMBRERESTRICCION, NULLABLE AS PERMITENULOS

FROM ALL_TAB_COLUMNS

FULL OUTER JOIN ALL_CONS_COLUMNS

ON ALL_TAB_COLUMNS.TABLE_NAME = ALL_CONS_COLUMNS.TABLE_NAME AND
ALL_TAB_COLUMNS.COLUMN_NAME = ALL_CONS_COLUMNS.COLUMN_NAME

WHERE ALL_TAB_COLUMNS.OWNER='PARRANDEROS'

ORDER BY NOMBRETABLA ASC, NOMBRECOLUMNA ASC, NOMBRERESTRICCION ASC;
```

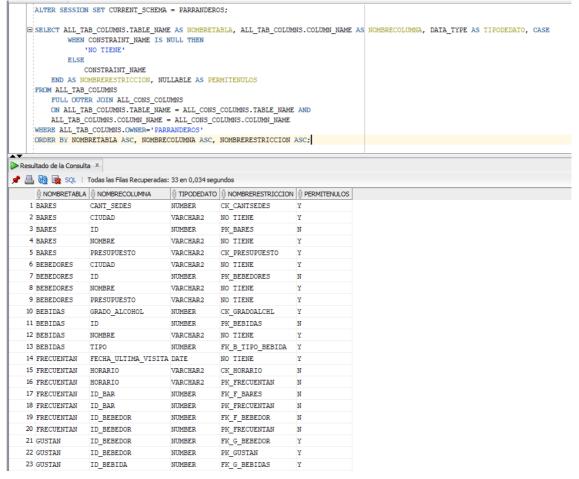


Figura 4: Requerimiento Consulta 4

2.5 Requerimiento de consulta 5

```
SELECT
           NOMBRETABLA,
                           NOMBRECOLUMNA,
                                           COUNT (NOMBRERESTRICCION)
                                                                        AS
NUMRESTRICCIONES, VOWEL COUNT
  FROM (
                    ALL TAB COLUMNS.TABLE NAME
          SELECT
                                                     AS
                                                             NOMBRETABLA,
ALL TAB COLUMNS.COLUMN NAME AS NOMBRECOLUMNA,
                                                    CONSTRAINT NAME
                                                                        AS
                   LENGTH (ALL TAB COLUMNS.TABLE NAME)
NOMBRERESTRICCION,
                                                                   LENGTH (
REPLACE (REPLACE (REPLACE (REPLACE ( LOWER (ALL TAB COLUMNS.TABLE NAME) ,
'a', ''), 'e', ''), 'i', ''), 'o', ''), 'u', '')) AS VOWEL COUNT
          FROM ALL TAB COLUMNS
              FULL OUTER JOIN ALL CONS COLUMNS
              ON ALL TAB COLUMNS.TABLE NAME = ALL CONS COLUMNS.TABLE NAME
AND
              ALL TAB COLUMNS.COLUMN NAME = ALL CONS COLUMNS.COLUMN NAME
          WHERE ALL TAB COLUMNS.COLUMN NAME = 'ID' AND
              ALL TAB COLUMNS.OWNER = 'PARRANDEROS' AND
              ALL TAB COLUMNS.TABLE NAME = 'BARES' AND
              ALL TAB COLUMNS.COLUMN NAME NOT LIKE ('%R%')
```

```
WHERE VOWEL_COUNT <= 2

GROUP BY NOMBRETABLA, NOMBRECOLUMNA, VOWEL_COUNT

ORDER BY NOMBRETABLA ASC, NOMBRECOLUMNA ASC;
```

```
SILEY BORNETARIA, NORRECOLUMNA, COUNT (KMRETERITICOINS), AS UNMERITACIONS, VOMEL COUNT
FROM No.

SILEY BORNETARIA, NORRECOLUMNA, COUNT (KMRETERITICOINS), AS UNMERITACIONS, VOMEL COUNT
FROM No.

FR
```

Figura 5: Requerimiento Consulta 5, parte 1

```
SELECT COLUMN NAME AS COLUMNA,
   'SELECT NOMBRETABLA, NOMBRECOLUMNA, COUNT (NOMBRERESTRICCION) AS
NUMRESTRICCIONES, VOWEL COUNT
   FROM (
           SELECT ALL TAB COLUMNS. TABLE NAME AS NOMBRETABLA,
ALL TAB COLUMNS.COLUMN NAME AS NOMBRECOLUMNA, CONSTRAINT NAME AS
NOMBRERESTRICCION, LENGTH(ALL TAB COLUMNS.TABLE NAME) - LENGTH(
REPLACE (REPLACE (REPLACE (REPLACE ( LOWER (ALL TAB COLUMNS. TABLE NAME) ,
''a'', ''''), ''e'', ''''), ''i'', ''''), ''o'', '<sup>'</sup>'''), ''u'', '''') AS
VOWEL COUNT
           FROM ALL TAB COLUMNS
               FULL OUTER JOIN ALL CONS COLUMNS
               ON ALL TAB COLUMNS.TABLE NAME = ALL CONS COLUMNS.TABLE NAME
AND
               ALL TAB COLUMNS.COLUMN NAME = ALL CONS COLUMNS.COLUMN NAME
           WHERE ALL TAB COLUMNS.COLUMN NAME = ''' || COLUMN NAME || '''
AND
               ALL TAB COLUMNS.OWNER = ''PARRANDEROS'' AND
               ALL TAB COLUMNS.TABLE NAME = ''' || TABLE NAME || ''' AND
               ALL TAB COLUMNS.COLUMN NAME NOT LIKE (''%R%'')
   WHERE VOWEL COUNT <= 2
   GROUP BY NOMBRETABLA, NOMBRECOLUMNA, VOWEL COUNT
   ORDER BY NOMBRETABLA ASC, NOMBRECOLUMNA ASC; ' AS SENTENCIA
   FROM ALL TAB COLUMNS
   WHERE OWNER = 'PARRANDEROS' AND
  ALL TAB COLUMNS.COLUMN NAME NOT LIKE ('%R%')
  AND LENGTH (ALL TAB COLUMNS.TABLE NAME) - LENGTH (
REPLACE (REPLACE (REPLACE (REPLACE ( LOWER (ALL_TAB_COLUMNS.TABLE_NAME) ,
'a', ''), 'e', ''), 'i', ''), 'o', ''), 'u', '') ) <= 2;
```

```
SELECT ALL_TAD COURSES THATE SHOW AS HOMESTABLE, SHOW AS HOMESTABLE COURSES, COURSES
```

Figura 5: Requerimiento Consulta 5, parte 2

Scripts generados:

SELECT NOMBRETABLA, NOMBRECOLUMNA, COUNT (NOMBRERESTRICCION) AS NUMRESTRICCIONES, VOWEL COUNT

```
NUMRESTRICCIONES, VOWEL COUNT
  FROM (
          SELECT ALL TAB COLUMNS. TABLE NAME AS NOMBRETABLA,
ALL TAB COLUMNS.COLUMN NAME AS NOMBRECOLUMNA, CONSTRAINT NAME AS
NOMBRERESTRICCION, LENGTH(ALL TAB COLUMNS.TABLE NAME) - LENGTH(
REPLACE (REPLACE (REPLACE (REPLACE (
LOWER (ALL_TAB_COLUMNS.TABLE_NAME), 'a', ''), 'e', ''), 'i', ''),
'o', ''), 'u', '') ) AS VOWEL COUNT
          FROM ALL TAB COLUMNS
               FULL OUTER JOIN ALL CONS COLUMNS
               ON ALL TAB COLUMNS.TABLE NAME =
ALL_CONS_COLUMNS.TABLE NAME AND
              ALL TAB COLUMNS.COLUMN NAME =
ALL CONS COLUMNS.COLUMN NAME
          WHERE ALL TAB COLUMNS.COLUMN NAME = 'ID' AND
              ALL TAB COLUMNS.OWNER = 'PARRANDEROS' AND
              ALL TAB COLUMNS.TABLE NAME = 'BARES' AND
              ALL TAB COLUMNS.COLUMN NAME NOT LIKE ('%R%')
  WHERE VOWEL COUNT <= 2
  GROUP BY NOMBRETABLA, NOMBRECOLUMNA, VOWEL COUNT
  ORDER BY NOMBRETABLA ASC, NOMBRECOLUMNA ASC;
  SELECT NOMBRETABLA, NOMBRECOLUMNA, COUNT (NOMBRERESTRICCION) AS
NUMRESTRICCIONES, VOWEL COUNT
  FROM (
          SELECT ALL TAB COLUMNS. TABLE NAME AS NOMBRETABLA,
ALL TAB COLUMNS.COLUMN NAME AS NOMBRECOLUMNA, CONSTRAINT NAME AS
```

SELECT ALL_TAB_COLUMNS.TABLE_NAME AS NOMBRETABLA,
ALL_TAB_COLUMNS.COLUMN_NAME AS NOMBRECOLUMNA, CONSTRAINT_NAME AS
NOMBRERESTRICCION, LENGTH(ALL_TAB_COLUMNS.TABLE_NAME) - LENGTH(
REPLACE(REPLACE(REPLACE(REPLACE(REPLACE(
LOWER(ALL_TAB_COLUMNS.TABLE_NAME), 'a', ''), 'e', ''), 'i', ''),
'o', ''), 'u', '')) AS VOWEL_COUNT
FROM ALL TAB COLUMNS

```
FULL OUTER JOIN ALL CONS COLUMNS
               ON ALL TAB COLUMNS. TABLE NAME =
ALL CONS COLUMNS. TABLE NAME AND
               ALL TAB COLUMNS.COLUMN NAME =
ALL CONS COLUMNS.COLUMN NAME
          WHERE ALL TAB COLUMNS.COLUMN NAME = 'CIUDAD' AND
               ALL TAB COLUMNS.OWNER = 'PARRANDEROS' AND
               ALL TAB COLUMNS.TABLE NAME = 'BARES' AND
               ALL TAB COLUMNS.COLUMN NAME NOT LIKE ('%R%')
   WHERE VOWEL COUNT <= 2
  GROUP BY NOMBRETABLA, NOMBRECOLUMNA, VOWEL COUNT
  ORDER BY NOMBRETABLA ASC, NOMBRECOLUMNA ASC;
  SELECT NOMBRETABLA, NOMBRECOLUMNA, COUNT (NOMBRERESTRICCION) AS
NUMRESTRICCIONES, VOWEL COUNT
  FROM (
          SELECT ALL TAB COLUMNS. TABLE NAME AS NOMBRETABLA,
ALL TAB COLUMNS.COLUMN NAME AS NOMBRECOLUMNA, CONSTRAINT NAME AS
NOMBRERESTRICCION, LENGTH (ALL TAB COLUMNS.TABLE NAME) - LENGTH (
REPLACE (REPLACE (REPLACE (REPLACE (
LOWER (ALL_TAB_COLUMNS.TABLE_NAME), 'a', ''), 'e', ''), 'i', ''),
'o', ''), 'u', '') ) AS VOWEL COUNT
          FROM ALL TAB COLUMNS
               FULL OUTER JOIN ALL CONS COLUMNS
               ON ALL TAB COLUMNS.TABLE NAME =
ALL CONS COLUMNS. TABLE NAME AND
              ALL TAB COLUMNS.COLUMN NAME =
ALL CONS COLUMNS. COLUMN NAME
          WHERE ALL TAB COLUMNS.COLUMN NAME = 'CANT SEDES' AND
               ALL TAB COLUMNS.OWNER = 'PARRANDEROS' AND
               ALL TAB COLUMNS.TABLE NAME = 'BARES' AND
              ALL TAB COLUMNS.COLUMN NAME NOT LIKE ('%R%')
   WHERE VOWEL COUNT <= 2
   GROUP BY NOMBRETABLA, NOMBRECOLUMNA, VOWEL COUNT
  ORDER BY NOMBRETABLA ASC, NOMBRECOLUMNA ASC;
   SELECT NOMBRETABLA, NOMBRECOLUMNA, COUNT (NOMBRERESTRICCION) AS
NUMRESTRICCIONES, VOWEL COUNT
  FROM (
          SELECT ALL TAB COLUMNS. TABLE NAME AS NOMBRETABLA,
ALL TAB COLUMNS.COLUMN NAME AS NOMBRECOLUMNA, CONSTRAINT NAME AS
NOMBRERESTRICCION, LENGTH (ALL TAB COLUMNS.TABLE NAME) - LENGTH (
REPLACE (REPLACE (REPLACE (REPLACE (
```

```
LOWER (ALL TAB COLUMNS. TABLE NAME), 'a', ''), 'e', ''), 'i', ''),
'o', ''), 'u', '') ) AS VOWEL COUNT
           FROM ALL TAB COLUMNS
               FULL OUTER JOIN ALL CONS_COLUMNS
               ON ALL TAB COLUMNS.TABLE NAME =
ALL CONS COLUMNS. TABLE NAME AND
               ALL TAB COLUMNS.COLUMN NAME =
ALL CONS COLUMNS.COLUMN NAME
           WHERE ALL TAB COLUMNS.COLUMN NAME = 'ID BEBIDA' AND
               ALL TAB COLUMNS.OWNER = 'PARRANDEROS' AND
               ALL TAB COLUMNS.TABLE NAME = 'GUSTAN' AND
               ALL TAB COLUMNS.COLUMN NAME NOT LIKE ('%R%')
   WHERE VOWEL COUNT <= 2
   GROUP BY NOMBRETABLA, NOMBRECOLUMNA, VOWEL COUNT
   ORDER BY NOMBRETABLA ASC, NOMBRECOLUMNA ASC;
   SELECT NOMBRETABLA, NOMBRECOLUMNA, COUNT (NOMBRERESTRICCION) AS
NUMRESTRICCIONES, VOWEL COUNT
   FROM (
           SELECT ALL TAB COLUMNS. TABLE NAME AS NOMBRETABLA,
ALL TAB COLUMNS.COLUMN NAME AS NOMBRECOLUMNA, CONSTRAINT NAME AS
NOMBRERESTRICCION, LENGTH (ALL TAB COLUMNS.TABLE NAME) - LENGTH (
REPLACE (REPLACE (REPLACE (REPLACE (
LOWER (ALL TAB COLUMNS. TABLE NAME), 'a', ''), 'e', ''), 'i', ''),
'o', ''), 'u', '') ) AS VOWEL COUNT
           FROM ALL TAB COLUMNS
               FULL OUTER JOIN ALL CONS COLUMNS
               ON ALL TAB COLUMNS.TABLE NAME =
ALL CONS COLUMNS. TABLE NAME AND
               ALL TAB COLUMNS.COLUMN NAME =
ALL CONS COLUMNS.COLUMN NAME
           WHERE ALL TAB COLUMNS.COLUMN NAME = 'ID BEBIDA' AND
               ALL TAB COLUMNS.OWNER = 'PARRANDEROS' AND
               ALL TAB COLUMNS.TABLE NAME = 'SIRVEN' AND
               ALL TAB COLUMNS.COLUMN NAME NOT LIKE ('%R%')
       )
   WHERE VOWEL COUNT <= 2
   GROUP BY NOMBRETABLA, NOMBRECOLUMNA, VOWEL COUNT
   ORDER BY NOMBRETABLA ASC, NOMBRECOLUMNA ASC;
```

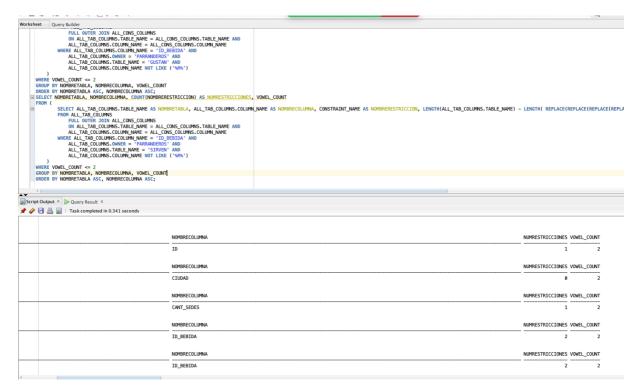


Figura 5: Requerimiento Consulta 5, parte 3

3 Bibliografía

1. *Universidad de los Andes*. [En línea] [Citado el: 1 de Septiembre de 2022.] https://bloqueneon.uniandes.edu.co/content/enforced/140479-UN_202220_ISIS2304_I/Taller%20SQL/Taller%202-2%20-%20Cat%C3%A1logo.pdf?isCourseFile=true&_&d2ISessionVal=eHNzz2IB0T6eVN5P6Wx dMPRs4&ou=140479.