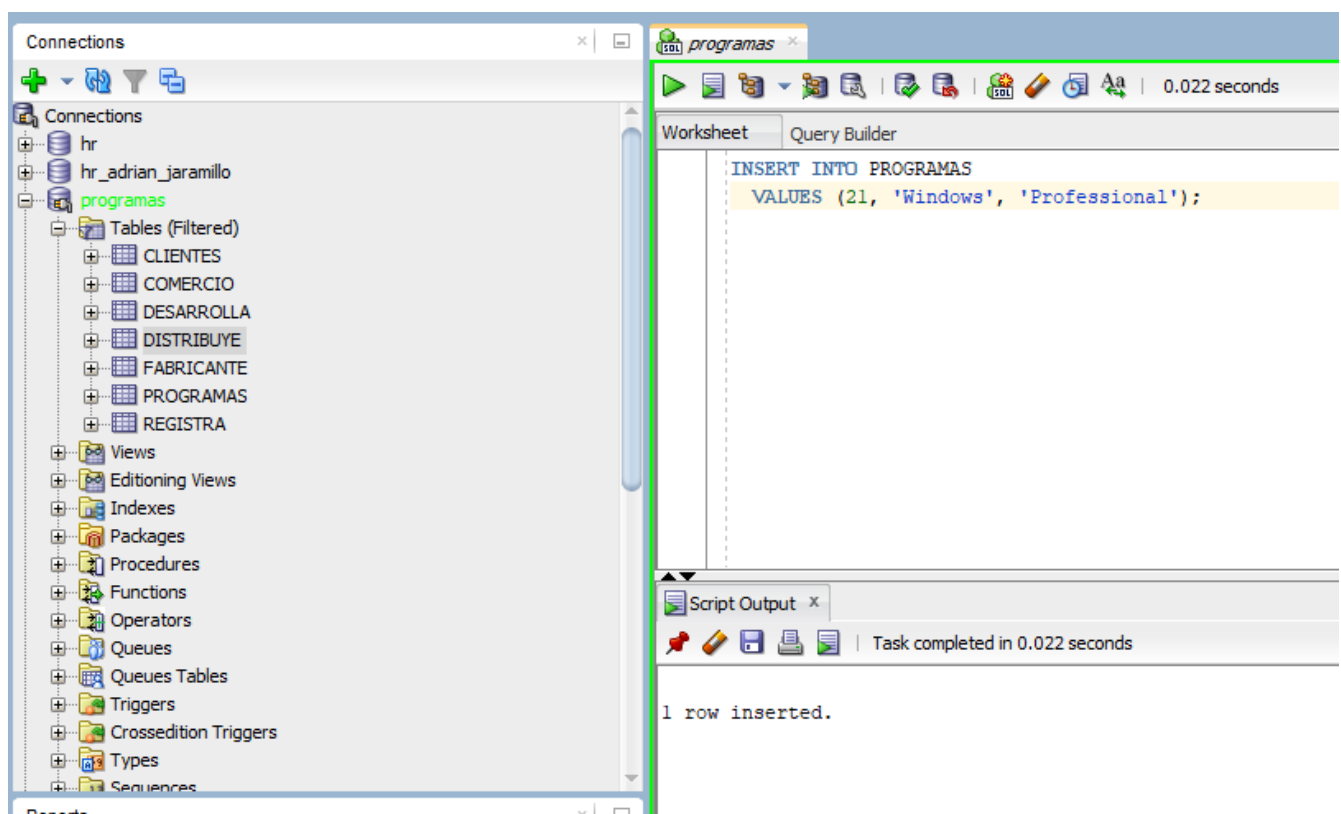


Práctica 5.3: hecha por Adrián Jaramillo Rodríguez

1. Inserta en la tabla "Programas" el sistema operativo Windows 10 Professional.

```
INSERT INTO PROGRAMAS  
VALUES (21, 'windows', 'Professional');
```



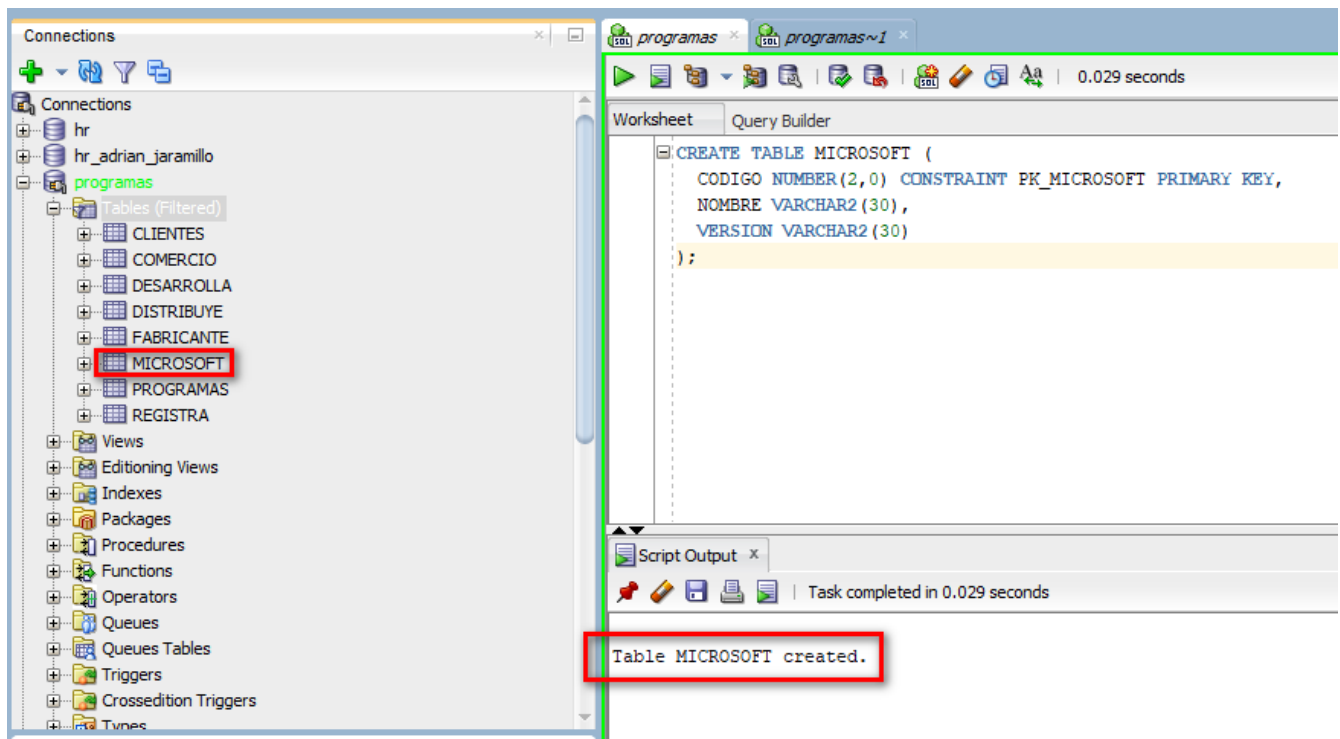
The screenshot displays a database management interface. On the left, the 'Connections' pane shows a tree view of database objects, including 'programas'. The 'Worksheet' pane shows the query 'select * from programas'. The 'Script Output' pane shows the results of the query, with row 21 highlighted in red.

| Row | Product Name | Version |
|-----|--------------------------|--------------|
| 12 | Windows | 2003 Server |
| 13 | Norton Internet Security | 2004 |
| 14 | Freddy Hardest | - |
| 15 | Paradox | 2 |
| 16 | C++ Builder | 55 |
| 17 | DB/2 | 20 |
| 18 | OS/2 | 10 |
| 19 | JBuilder | X |
| 20 | La prisión | 10 |
| 21 | Windows | Professional |

21 rows selected.

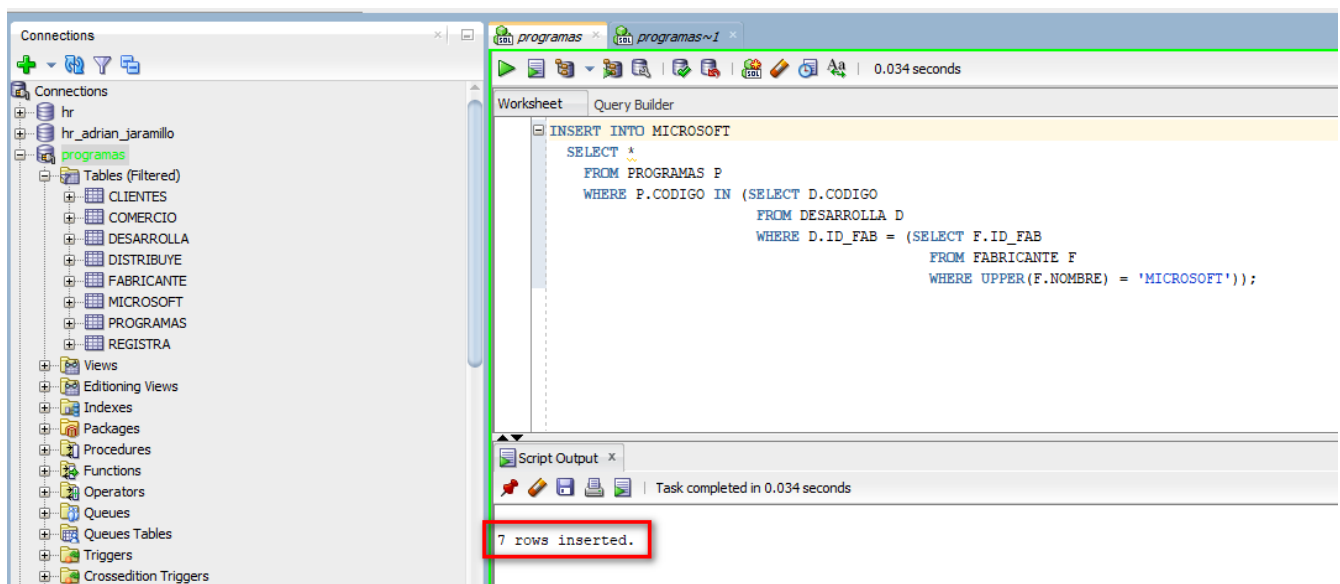
2. Crea una tabla llamada "Microsoft" con la misma estructura que la tabla "Programas". Inserta en ella sólo aquellos programas del fabricante "Microsoft".

```
CREATE TABLE MICROSOFT (  
  CODIGO NUMBER(2,0) CONSTRAINT PK_MICROSOFT PRIMARY KEY,  
  NOMBRE VARCHAR2(30),  
  VERSION VARCHAR2(30)  
);
```



INSERT INTO MICROSOFT

```
SELECT *
FROM PROGRAMAS P
WHERE P.CODIGO IN (SELECT D.CODIGO
                   FROM DESARROLLA D
                   WHERE D.ID_FAB = (SELECT F.ID_FAB
                                     FROM FABRICANTE F
                                     WHERE UPPER(F.NOMBRE) = 'MICROSOFT'));
```



The screenshot shows the SQL Server Enterprise Manager interface. The 'Connections' pane on the left displays a tree view of the database structure, including tables like CLIENTES, COMERCIO, DESARROLLA, DISTRIBUYE, FABRICANTE, MICROSOFT, PROGRAMAS, and REGISTRA. The 'Script Output' pane at the bottom right shows the execution of a query, with a table of results highlighted by a red box.

| CODIGO | NOMBRE | VERSION |
|--------|---------|-----------------|
| 6 | Access | 97 |
| 7 | Access | 2000 |
| 8 | Access | XP |
| 9 | Windows | 98 |
| 10 | Windows | XP Professional |
| 11 | Windows | XP Home Edition |
| 12 | Windows | 2003 Server |

7 rows selected.

3. Inserta en la tabla "Registra" las filas correspondientes a los registros que haría el cliente con DNI "5" para cada uno de los programas que podría comprar en "El Corte Inglés" de Sevilla. Los registros los haría por Internet.

```

INSERT INTO REGISTRA
SELECT C.CIF, 5, D.CODIGO, 'Internet' -- Se usan campos fijos, porque sabemos que estarán
siempre, y luego se obtienen los datos de donde están los datos variables
FROM COMERCIO C
INNER JOIN DISTRIBUYE D ON C.CIF = D.CIF
WHERE
    UPPER(C.NOMBRE) = 'EL CORTE INGLES'
AND
    UPPER(C.CIUDAD) = 'SEVILLA';

```

The screenshot shows the SQL Server Enterprise Manager interface with the 'Script Output' pane at the bottom right displaying the execution of an INSERT query. A red box highlights the message '6 rows inserted.'.

6 rows inserted.

Connections

- hr
- hr_adrian_jaramillo
- programas
 - Tables (Filtered)
 - CLIENTES
 - COMERCIO
 - DESARROLLA
 - DISTRIBUYE
 - FABRICANTE
 - MICROSOFT
 - PROGRAMAS
 - REGISTRA
 - Views
 - Editing Views
 - Indexes
 - Packages
 - Procedures
 - Functions
 - Operators
 - Queues
 - Queues Tables
 - Triggers
 - Crossedition Triggers
 - Types

Reports

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

Worksheet

```
select *
from registra
where dni = 5 and medio = 'Internet'
```

Script Output

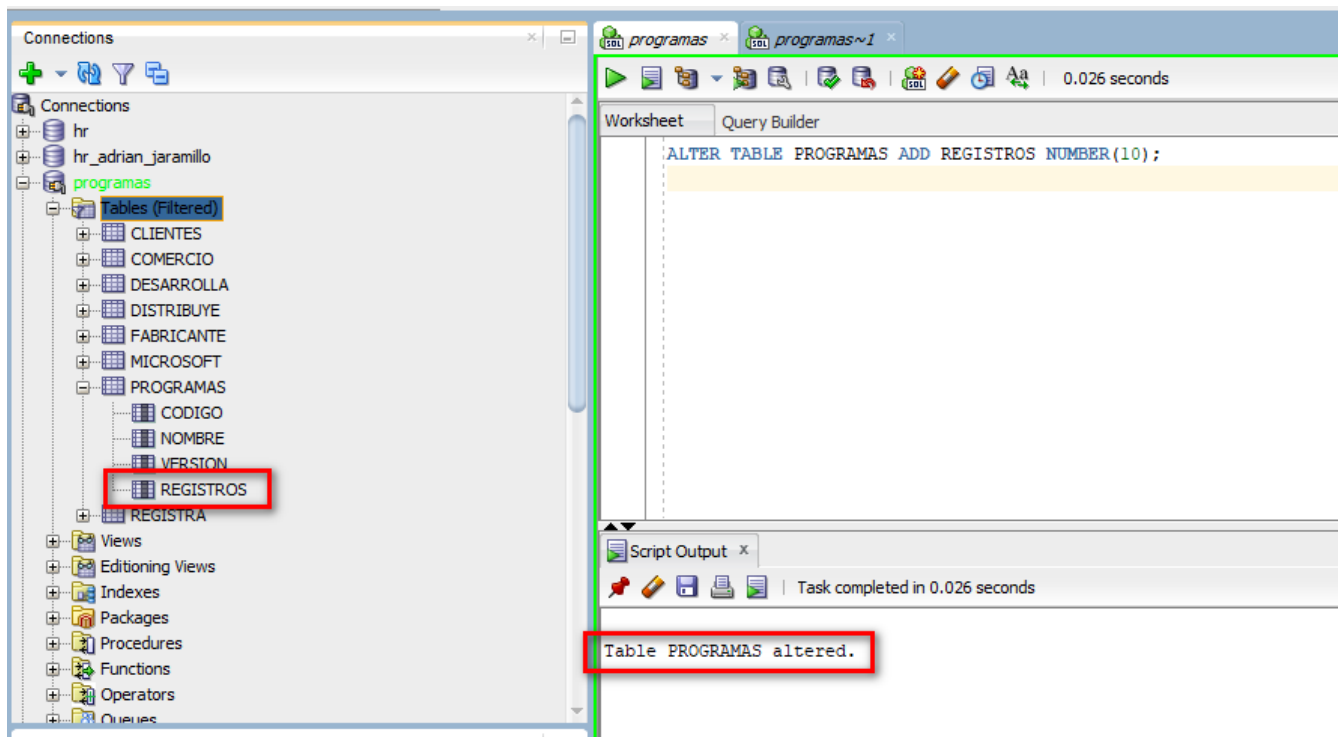
Task completed in 0.055 seconds

| CIF | DNI | CODIGO | MEDIO |
|-----|-----|--------|----------|
| 1 | 5 | 1 | Internet |
| 1 | 5 | 2 | Internet |
| 1 | 5 | 6 | Internet |
| 1 | 5 | 7 | Internet |
| 1 | 5 | 10 | Internet |
| 1 | 5 | 13 | Internet |

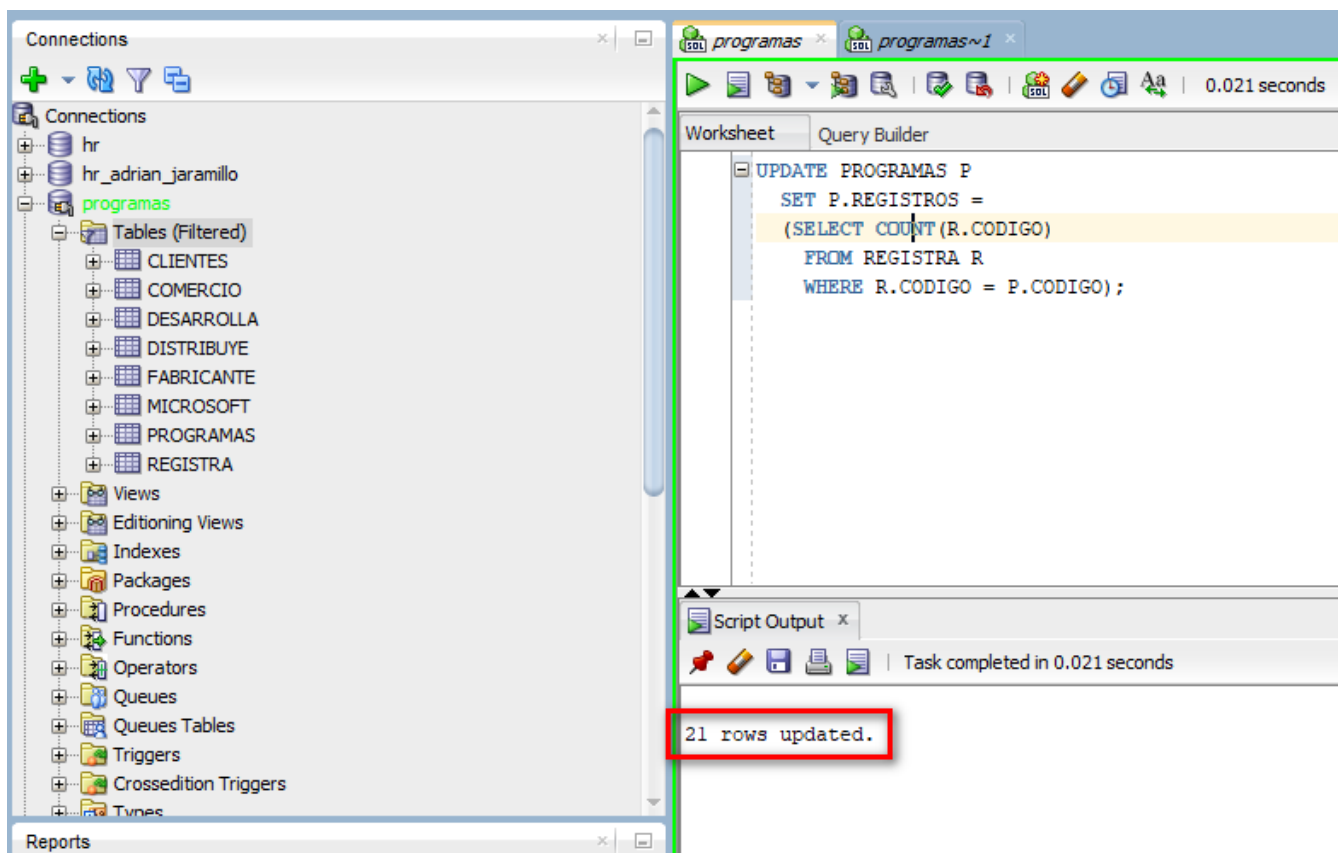
6 rows selected.

4. Añade a la tabla "Programas" una columna llamada "registros" de tipo number. A continuación, para cada programa, escribe en esta columna el número de registros que se han realizado del mismo, independientemente del medio utilizado para ello (Internet, teléfono o Tarjeta postal).

```
ALTER TABLE PROGRAMAS ADD REGISTROS NUMBER(10);
```



```
UPDATE PROGRAMAS P
SET P.REGISTROS =
(SELECT COUNT(R.CODIGO)
FROM REGISTRA R
WHERE R.CODIGO = P.CODIGO);
```



The screenshot shows a database management interface with a 'Connections' pane on the left, a 'Query Builder' window in the center, and a 'Script Output' window at the bottom. The 'Script Output' window displays the results of a query executed on the 'programas' table. The results are shown in a table with three columns: 'CODIGO', 'NOMBRE', and 'VERSION'. A fourth column, 'REGISTROS', is highlighted with a red box. The status bar at the bottom indicates '21 rows selected.'

| CODIGO | NOMBRE | VERSION | REGISTROS |
|--------|--------------------------|--------------|-----------|
| 12 | Windows | 2003 Server | 1 |
| 13 | Norton Internet Security | 2004 | 1 |
| 14 | Freddy Hardest | - | 0 |
| 15 | Paradox | 2 | 1 |
| 16 | C++ Builder | 55 | 0 |
| 17 | DB/2 | 20 | 0 |
| 18 | OS/2 | 10 | 0 |
| 19 | JBuilder | X | 0 |
| 20 | La prisión | 10 | 0 |
| 21 | Windows | Professional | 0 |

5. Añade ahora a la tabla "Programas" tres columnas más: "registros_i", "registros_t" y "registros_p". Actualiza cada una con el número de registros que se han realizado por cada medio (Internet, Teléfono y Tarjeta postal).

```
ALTER TABLE PROGRAMAS ADD REGISTROS_I NUMBER(10);
ALTER TABLE PROGRAMAS ADD REGISTROS_T NUMBER(10);
ALTER TABLE PROGRAMAS ADD REGISTROS_P NUMBER(10);
```

The screenshot displays the SQL Developer environment. On the left, the 'Connections' pane shows a tree view of the database schema. The 'PROGRAMAS' table is expanded, and its columns 'REGISTROS_I', 'REGISTROS_T', and 'REGISTROS_P' are highlighted with a red box. The 'Script Output' pane at the bottom right shows the execution results of the SQL script, with three identical messages: 'Table PROGRAMAS altered.', each enclosed in a red box. The 'Query Builder' pane shows the executed SQL script:

```
ALTER TABLE PROGRAMAS ADD REGISTROS_I NUMBER(10);
ALTER TABLE PROGRAMAS ADD REGISTROS_T NUMBER(10);
ALTER TABLE PROGRAMAS ADD REGISTROS_P NUMBER(10);
```

The 'Script Output' pane also indicates that the task was completed in 0.348 seconds.

```
UPDATE PROGRAMAS P
SET P.REGISTROS_I = (SELECT COUNT(R.CODIGO)
                    FROM REGISTRA R
                    WHERE
                        UPPER(R.MEDIO) = 'INTERNET'
                        AND
                        R.CODIGO = P.CODIGO),
P.REGISTROS_T = (SELECT COUNT(R.CODIGO)
                 FROM REGISTRA R
                 WHERE
                     UPPER(R.MEDIO) = 'TELEFONO'
                     AND
                     R.CODIGO = P.CODIGO),
P.REGISTROS_P = (SELECT COUNT(R.CODIGO)
                 FROM REGISTRA R
                 WHERE
                     UPPER(R.MEDIO) = 'TARJETA POSTAL'
                     AND
                     R.CODIGO = P.CODIGO);
```


Connections

- hr
- hr_adrian_jaramillo
- programas
 - Tables (Filtered)
 - CLIENTES
 - COMERCIO
 - DESARROLLA
 - DISTRIBUYE
 - FABRICANTE
 - MICROSOFT
 - PROGRAMAS
 - CODIGO
 - NOMBRE
 - VERSION
 - REGISTROS
 - REGISTROS_I
 - REGISTROS_T
 - REGISTROS_P
 - REGISTRA
 - Views
 - Editing Views
 - Indexes
 - Packages
 - Procedures

Worksheet

```

UPPER(R.MEDIO) = 'INTERNET'
AND
R.CODIGO = P.CODIGO),
P.REGISTROS_I = (SELECT COUNT(R.CODIGO)
FROM REGISTRA R
WHERE
UPPER(R.MEDIO) = 'TELEFONO'
AND
R.CODIGO = P.CODIGO),
P.REGISTROS_P = (SELECT COUNT(R.CODIGO)
FROM REGISTRA R
WHERE
UPPER(R.MEDIO) = 'TARJETA POSTAL'
AND
R.CODIGO = P.CODIGO);
  
```

Script Output

Task completed in 0.03 seconds

21 rows updated.

Connections

- hr
- hr_adrian_jaramillo
- programas
 - Tables (Filtered)
 - CLIENTES
 - COMERCIO
 - DESARROLLA
 - DISTRIBUYE
 - FABRICANTE
 - MICROSOFT
 - PROGRAMAS
 - CODIGO
 - NOMBRE
 - VERSION
 - REGISTROS
 - REGISTROS_I
 - REGISTROS_T
 - REGISTROS_P
 - REGISTRA
 - Views
 - Editing Views
 - Indexes
 - Packages
 - Procedures

Worksheet

```

select *
from programas
  
```

Script Output

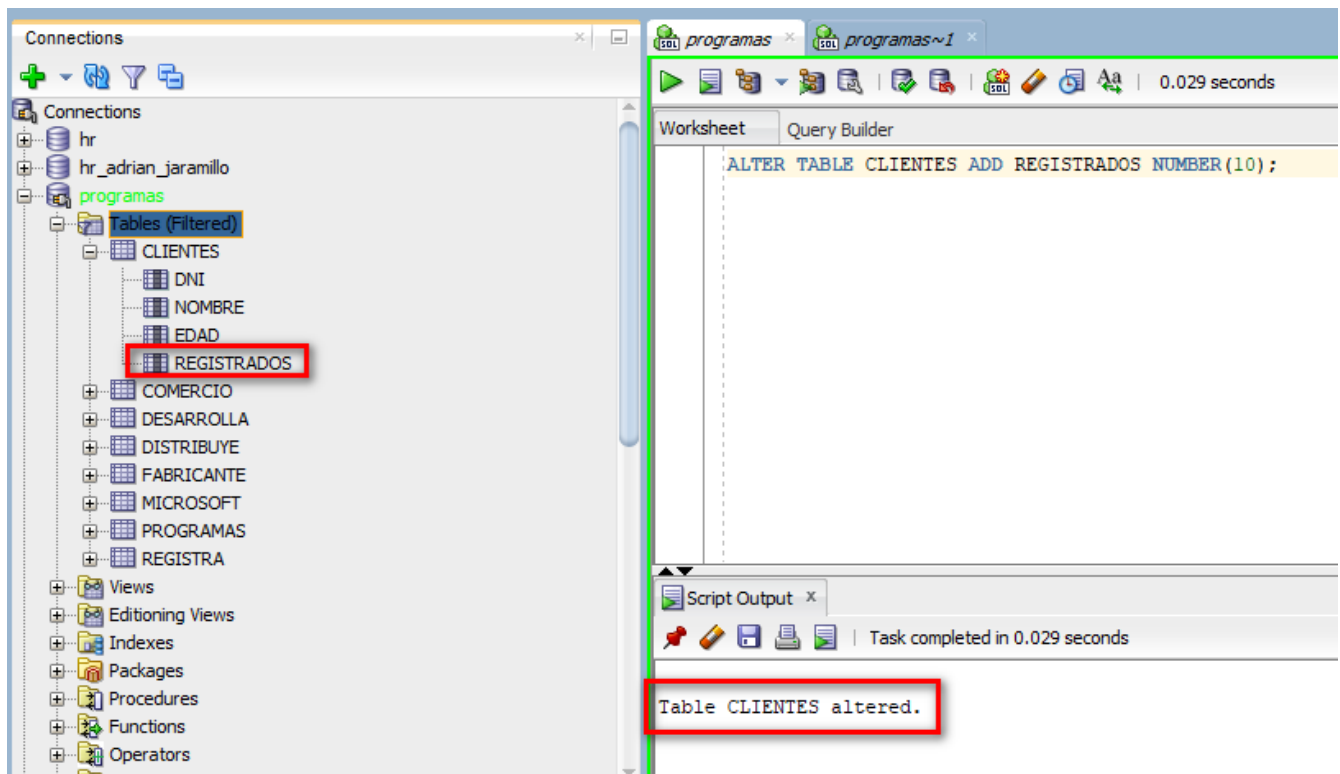
Task completed in 0.025 seconds

| CODIGO | NOMBRE | VERSION | REGISTROS | REGISTROS_I | REGISTROS_T | REGISTROS_P |
|--------|--------------------------|--------------|-----------|-------------|-------------|-------------|
| 12 | Windows | 2003 Server | 1 | 1 | 0 | 0 |
| 13 | Norton Internet Security | 2004 | 1 | 1 | 0 | 0 |
| 14 | Freddy Hardest | - | 0 | 0 | 0 | 0 |
| 15 | Paradox | 2 | 1 | 1 | 0 | 0 |
| 16 | C++ Builder | 55 | 0 | 0 | 0 | 0 |
| 17 | DB/2 | 20 | 0 | 0 | 0 | 0 |
| 18 | OS/2 | 10 | 0 | 0 | 0 | 0 |
| 19 | JBuilder | X | 0 | 0 | 0 | 0 |
| 20 | La prisión | 10 | 0 | 0 | 0 | 0 |
| 21 | Windows | Professional | 0 | 0 | 0 | 0 |

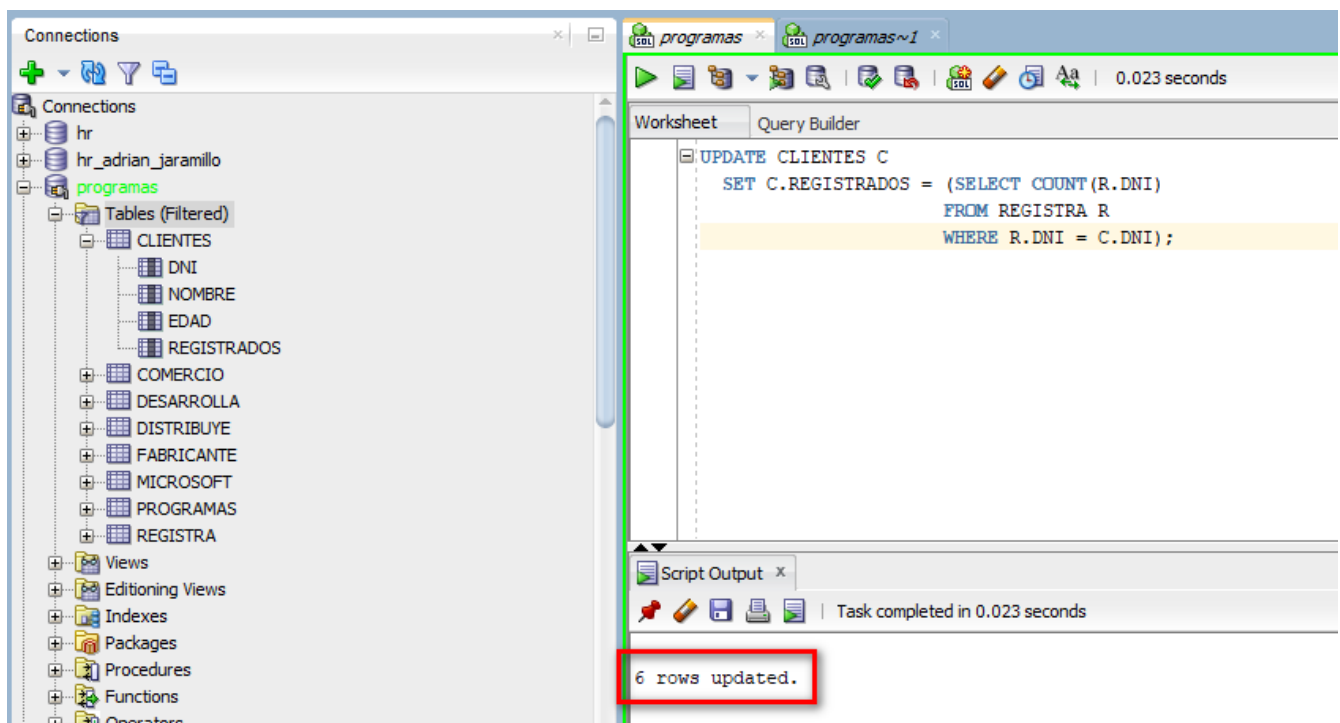
21 rows selected.

6. Añade a la tabla "Clientes" una columna llamada "registrados" de tipo number que deberás actualizar con el número de registros que ha efectuado el cliente, independientemente del medio por el que lo haya hecho.

```
ALTER TABLE CLIENTES ADD REGISTRADOS NUMBER(10);
```



```
UPDATE CLIENTES C
SET C.REGISTRADOS = (SELECT COUNT(R.DNI)
FROM REGISTRA R
WHERE R.DNI = C.DNI);
```



Connections

- hr
- hr_adrian_jaramillo
- programas
 - Tables (Filtered)
 - CLIENTES
 - DNI
 - NOMBRE
 - EDAD
 - REGISTRADOS
 - COMERCIO
 - DESARROLLA
 - DISTRIBUYE
 - FABRICANTE
 - MICROSOFT
 - PROGRAMAS
 - REGISTRA
 - Views
 - Editing Views
 - Indexes
 - Packages
 - Procedures
 - Functions
 - Operators
 - Queues

Reports

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

programas x programas~1 x

0.031 seconds

Worksheet Query Builder

```
select *  
from clientes
```

Script Output x

Task completed in 0.031 seconds

| DNI | NOMBRE | EDAD | REGISTRADOS |
|-----|-----------------|------|-------------|
| 1 | Pepe Pérez | 45 | 2 |
| 2 | Juan González | 45 | 2 |
| 3 | Maria Gómez | 33 | 1 |
| 4 | Javier Casado | 18 | 1 |
| 5 | Nuria Sánchez | 29 | 6 |
| 6 | Antonio Navarro | 58 | 0 |

6 rows selected.