

Instituto Tecnológico de Costa Rica

Campus Tecnológico Local San José

Laboratorio 02: DML

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1. Registre 20 personas con datos legibles y consistentes que incluyan el dato del salario, nombres y apellidos, fecha de nacimiento, entre otros básicos. Asegúrese que hay 10 personas que tienen los salarios más altos y que 5 de esos salarios se repiten. 20 pts.

Tabla People antes de la inserción:

ID	FIRST_NAME	SECOND_NAME	FIRST_SURNAME	SECOND_SURNAME	SALARY	BIRTHDAY	ID_TYPE_PERSONA
----	------------	-------------	---------------	----------------	--------	----------	-----------------

Inserción de datos:

```
VALUES (10, 'Elena', 'Beatriz', 'Mendoza', 'Cruz', 19000, DATE '1986-06-30',2);
-- Inserciones para 10 personas con salarios menores (valores distintos)
INSERT INTO GE.PEOPLE (id, first_name, second_name, first_surname, second_surname, salary, birthday, id_type_person) VALUES (11, 'Diego', 'Esteban', 'Flores', 2000, DATE '1990-01-15',2);
INSERT INTO GE.PEOPLE (id, first_name, second_name, first_surname, second_surname, salary, birthday, id_type_person) VALUES (12, 'Patricia', 'SoledGE', 'Vega', 'DelgGEo', 2100, DATE '1992-03-22',2);
INSERT INTO GE.PEOPLE (id, first_name, second_name, first_surname, second_surname, salary, birthday, id_type_person) VALUES (13, 'Jorge', 'Andrés', 'Castro', 'Muñoz', 2200, DATE '1988-07-07',2);
INSERT INTO GE.PEOPLE (id, first_name, second_name, first_surname, second_surname, salary, birthday, id_type_person) VALUES (14, 'Cecilia', 'Marina', 'Romero', 'Paredes', 2300, DATE '1991-09-18',2);
INSERT INTO GE.PEOPLE (id, first_name, second_name, first_surname, second_surname, salary, birthday, id_type_person) VALUES (15, 'Ricardo', 'Fabián', 'Guerrero', 'Cabrera', 2400, DATE '1987-11-11',2);
INSERT INTO GE.PEOPLE (id, first_name, second_name, first_surname, second_surname, salary, birthday, id_type_person) VALUES (16, 'Verónica', 'Diana', 'Aguilar', 'Soto', 2500, DATE '1993-04-25',2);
INSERT INTO GE.PEOPLE (id, first_name, second_name, first_surname, second_surname, salary, birthday, id_type_person) VALUES (17, 'Andrés', 'Manuel', 'Rojas', 'Campos', 2600, DATE '1989-06-05',2);
INSERT INTO GE.PEOPLE (id, first_name, second_name, first_surname, second_surname, salary, birthday, id_type_person) VALUES (18, 'Gloria', 'Estela', 'Molina', 'Fuentes', 2700, DATE '1990-12-01',2);
INSERT INTO GE.PEOPLE (id, first_name, second_name, first_surname, second_surname, salary, birthday, id_type_person) VALUES (19, 'Raúl', 'Emilio', 'Salinas', 'Quintero', 2800, DATE '1988-10-10',2);
INSERT INTO GE.PEOPLE (id, first_name, second_name, first_surname, second_surname, salary, birthday, id_type_person) VALUES (20, 'Natalia', 'Rosa', 'Cifuentes', 'Valdez', 2900, DATE '1992-05-05',2);
COMMIT;
```

1 fila insertadas.
1 fila insertadas.
1 fila insertadas.
1 fila insertadas.
1 fila insertadas.

Después de la inserción:

The screenshot shows the Oracle SQL Developer interface with the 'GE.PEOPLE' table selected. The table has 20 rows of data, each representing a person with columns: ID, FIRST_NAME, SECOND_NAME, FIRST_SURNAME, SECOND_SURNAME, SALARY, BIRTHDAY, and ID_TYPE_People. The data includes names like Juan, María, Pedro, Ana, Luis, Sofía, Miguel, Laura, Carlos, Elena, Diego, Patricia, Jorge, Cecilia, Ricardo, Verónica, Andrés, Gloria, Raúl, and Natalia, along with their respective details and type codes.

ID	FIRST_NAME	SECOND_NAME	FIRST_SURNAME	SECOND_SURNAME	SALARY	BIRTHDAY	ID_TYPE_People
1	Juan	Carlos	Pérez	Gómez	15000	10/05/80	1
2	María	Luisa	Martínez	López	15000	15/03/78	1
3	Pedro	Alberto	Sánchez	Ramírez	16000	20/07/85	1
4	Ana	Isabel	Hernández	Morales	16000	05/11/82	1
5	Luis	Fernando	García	Torres	17000	28/02/79	1
6	Sofía	Elena	Ruiz	Castro	17000	12/09/83	2
7	Miguel	Angel	Díaz	Vargas	18000	03/04/81	2
8	Laura	Milagros	Moreno	Ramos	18000	17/08/84	2
9	Carlos	Andrés	Ortiz	Silva	19000	22/12/77	2
10	Elena	Beatriz	Mendoza	Cruz	19000	30/06/86	2
11	Diego	Esteban	Flores	Navarro	20000	15/01/90	2
12	Patricia	SoledGE	Vega	DelgGEo	21000	22/03/92	2
13	Jorge	Andrés	Castro	Muñoz	22000	07/07/88	2
14	Cecilia	Marina	Romero	Paredes	23000	18/09/91	2
15	Ricardo	Fabián	Guerrero	Cabrera	24000	11/11/87	2
16	Verónica	Diana	Aguilar	Soto	25000	25/04/93	2
17	Andrés	Manuel	Rojas	Campos	26000	05/06/89	2
18	Gloria	Estela	Molina	Fuentes	27000	01/12/90	2
19	Raúl	Emilio	Salinas	Quintero	28000	10/10/88	2
20	Natalia	Rosa	Cifuentes	Valdez	29000	05/05/92	2

2. Borre una persona. 5 pts.

En este caso se borra la persona con id = 11

The screenshot shows the Oracle SQL Developer interface with a script editor window containing a SQL script named '02.sql'. The script includes comments explaining the purpose and the SQL command to delete the person with ID 11 from the 'GE.PEOPLE' table. Below the script, a 'Salida de Script' (Script Output) window shows the confirmation message '1 fila eliminado' (1 row deleted).

```
-- Archivo: 02.sql
-- Descripción:
--   Borra una persona de la tabla GE.PEOPLE. En este ejemplo se
--   borra el usuario con id = 11.

DELETE FROM GE.PEOPLE
WHERE id = 11;

COMMIT;
```

Salida de Script x
Tarea terminada en 0,017 segundos

Confirmación terminada.
1 fila eliminado
Confirmación terminada.

Tabla despues del borrado:

The screenshot shows the Oracle SQL Developer interface with the 'PEOPLE' table selected. The table contains 20 rows of data, each representing a person with columns: ID, FIRST_NAME, SECOND_NAME, FIRST_SURNAME, SECOND_SURNAME, SALARY, BIRTHDAY, and ID_TYPE_PEOPLE. The data includes names like Juan, María, Pedro, Ana, Luis, Sofía, Miguel, Laura, Carlos, Elena, Patricia, Jorge, Cecilia, Ricardo, Verónica, Andrés, Gloria, Raúl, and Natalia, along with their respective salaries and birthdates. The last two rows (19 and 20) have an ID_TYPE_PEOPLE value of 2, while the rest have a value of 1.

ID	FIRST_NAME	SECOND_NAME	FIRST_SURNAME	SECOND_SURNAME	SALARY	BIRTHDAY	ID_TYPE_PEOPLE
1	Juan	Carlos	Pérez	Gómez	15000	10/05/80	1
2	María	Luisa	Martínez	López	15000	15/03/78	1
3	Pedro	Alberto	Sánchez	Ramírez	16000	20/07/85	1
4	Ana	Isabel	Hernández	Morales	16000	05/11/82	1
5	Luis	Fernando	García	Torres	17000	28/02/79	1
6	Sofía	Elena	Ruiz	Castro	17000	12/09/83	2
7	Miguel	Angel	Díaz	Vargas	18000	03/04/81	2
8	Laura	Milagros	Moreno	Ramos	18000	17/08/84	2
9	Carlos	Andrés	Ortiz	Silva	19000	22/12/77	2
10	Elena	Beatriz	Mendoza	Cruz	19000	30/06/86	2
11	Patricia	SoledGE	Vega	DelgGEo	2100	22/03/92	2
12	Jorge	Andrés	Castro	Muñoz	2200	07/07/88	2
13	Cecilia	Marina	Romero	Paredes	2300	18/09/91	2
14	Ricardo	Fabián	Guerrero	Cabrera	2400	11/11/87	2
15	Verónica	Diana	Aguilar	Soto	2500	25/04/93	2
16	Andrés	Manuel	Rojas	Campos	2600	05/06/89	2
17	Gloria	Estela	Molina	Fuentes	2700	01/12/90	2
18	Raúl	Emilio	Salinas	Quintero	2800	10/10/88	2
19	Natalia	Rosa	Cifuentes	Valdez	2900	05/05/92	2

3. Registre 8 teléfonos con tipo de teléfono que incluya ‘Casa’, ‘Celular’, ‘Oficina’ y modele de forma que se puedan incluir más tipos de teléfono. 10 pts.

Inserción de datos:

Tabla type_phone:

The screenshot shows the Oracle SQL Developer interface with three tabs at the top: 'Oracle11GR2-docker', 'Oracle-ge', and 'TYPE_PHONE'. The 'TYPE_PHONE' tab is active. Below the tabs is a toolbar with icons for new table, edit, save, delete, and refresh. A menu bar follows with options like 'Columnas', 'Datos', 'Model', etc. The main area displays a table with two columns: 'ID' and 'NAME'. The data is as follows:

ID	NAME
1	1 Casa
2	2 Celular
3	3 Oficina
4	4 Fax

Tabla phone:

The screenshot shows the Oracle SQL Developer interface with three tabs at the top: 'Oracle11GR2-docker', 'Oracle-ge', and 'PHONE'. The 'PHONE' tab is active. Below the tabs is a toolbar with icons for new table, edit, save, delete, and refresh. A menu bar follows with options like 'Columnas', 'Datos', 'Model', etc. The main area displays a table with three columns: 'ID', 'PHONE_NUMBER', and 'ID_TYPE_PHONE'. The data is as follows:

ID	PHONE_NUMBER	ID_TYPE_PHONE
1	1 555-1234	1
2	2 555-5678	2
3	3 555-9012	3
4	4 555-3456	1
5	5 555-7890	2
6	6 555-2345	3
7	7 555-6789	4
8	8 555-0123	1

4. Borre un teléfono. 5 pts.

Tabla antes del borrado:

The screenshot shows the Oracle SQL Developer interface with three tabs at the top: 'Oracle11GR2-docker', 'Oracle-ge', and 'PHONE'. The 'PHONE' tab is active, showing the table structure and data. The table has three columns: 'ID', 'PHONE_NUMBER', and 'ID_TYPE_PHONE'. The data consists of 8 rows:

ID	PHONE_NUMBER	ID_TYPE_PHONE
1	1 555-1234	1
2	2 555-5678	2
3	3 555-9012	3
4	4 555-3456	1
5	5 555-7890	2
6	6 555-2345	3
7	7 555-6789	4
8	8 555-0123	1

Borrar teléfono con id = 7:

The screenshot shows the Oracle SQL Developer interface with the 'Generador de Consultas' (Query Builder) tab active. The code area contains the following SQL script:

```
-- Descripción:  
-- Borra un teléfono de la tabla GE.PHONE.  
  
DELETE FROM GE.PHONE  
WHERE id = 7;  
  
COMMIT;
```

The 'Salida de Script' (Script Output) tab at the bottom shows the results of the execution:

```
1 fila eliminado  
Confirmación terminada.
```

Tabla despues de borrar la tupla con el id = 7

The screenshot shows the Oracle SQL Developer interface with three tabs open: 'Oracle11GR2-docker', 'Oracle-ge', and 'PHONE'. The PHONE tab is active, displaying the table structure and data. The table has columns: ID, PHONE_NUMBER, and ID_TYPE_PHONE. The data is as follows:

ID	PHONE_NUMBER	ID_TYPE_PHONE
1	1 555-1234	1
2	2 555-5678	2
3	3 555-9012	3
4	4 555-3456	1
5	5 555-7890	2
6	6 555-2345	3
7	8 555-0123	1

Asociar teléfonos con las personas antes de continuar

Se añaden teléfonos y personas a la tabla PhonexPeople:

The screenshot shows two instances of Oracle SQL Developer. Both instances have a connection named 'ge'.

Session 1 (Left):

- Shows the 'PEOPLE' table structure in the schema browser.
- Shows the 'Hoja de Trabajo' (Worksheet) with the following SQL code:

```
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (3, 3);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (4, 4);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (5, 5);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (6, 6);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (7, 1);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (8, 8);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (9, 3);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (10, 4);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (12, 6);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (13, 1);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (14, 2);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (15, 3);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (16, 5);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (17, 4);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (18, 8);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (19, 6);
INSERT INTO PHONEXPEOPLE (id_people, id_phone) VALUES (20, 1);
```
- Shows the 'Salida de Script' (Script Output) pane with the message: "1 fila insertadas."

Session 2 (Right):

- Shows the 'PHONEXPEOPLE' table structure in the schema browser.
- Shows the 'Hoja de Trabajo' (Worksheet) with the following SQL code:

```
1 fila insertadas.
```
- Shows the 'Salida de Script' (Script Output) pane with the message: "1 fila insertadas."
- Shows the 'Citas' (Quotations) pane with the message: "1 fila insertadas."
- Shows the 'ID_PHONE' column data from the 'PHONEXPEOPLE' table:

ID_PHONE
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

**5. Borre una persona que tenga teléfonos asociados. ¿Qué sucede? Justifique su respuesta.
10 pts.**

The screenshot shows the Oracle SQL Developer interface. In the central workspace, there is a script editor window titled "Hoja de Trabajo" containing the following SQL command:

```
DELETE FROM PEOPLE WHERE id = 1;
```

Below the script editor, the "Salida de Script" (Script Output) pane displays the error message:

```
Error que aparece en la linea: 1 del comando :  
DELETE FROM PEOPLE WHERE id = 1  
Informe de error -  
ORA-02292: restriccion de integridad (CE.FK_PHONEXPEOPLE_PEOPLE) violada - registro secundario encontrado
```

The left sidebar shows the database schema with tables like PEOPLE, PHONE, and PHONEXPEOPLE. The bottom status bar indicates the command was run in 0.272 seconds.

Lo que sucede es que da error ya que la persona con id 1 esta asociada a un numero en la tabla PhonexPerson, esto genera el error y para solucionarlo habría que eliminar la relación primero.

6. Actualice una persona para cambiarle el nombre a 'Marcela'. 5 pts.

Tabla antes del cambio:

ID	FIRST_NAME	SECOND_NAME	FIRST_SURNAME	SECOND_SURNAME	SALARY	BIRTHDAY	ID_TYPE_People
1	Juan	Carlos	Pérez	Gómez	15000	10/05/80	1
2	Maria	Luisa	Martinez	López	15000	15/03/78	1
3	Pedro	Alberto	Sánchez	Ramírez	16000	20/07/85	1
4	Ana	Isabel	Hernández	Morales	16000	05/11/82	1
5	Luis	Fernando	Garcia	Torres	17000	28/02/79	1
6	Sofia	Elena	Ruiz	Castro	17000	12/09/83	2
7	Miguel	Angel	Diaz	Vargas	18000	03/04/81	2
8	Laura	Milagros	Moreno	Ramos	18000	17/08/84	2
9	Carlos	Andrés	Ortiz	Silva	19000	22/12/77	2
10	Elena	Beatriz	Mendoza	Cruz	19000	30/06/86	2
11	Patricia	SoledGE	Vega	DelgGEo	2100	22/03/92	2
12	Jorge	Andrés	Castro	Muñoz	2200	07/07/88	2
13	Cecilia	Marina	Romero	Paredes	2300	18/09/91	2
14	Ricardo	Fabián	Guerrero	Cabrera	2400	11/11/87	2
15	Verónica	Diana	Aguilar	Soto	2500	25/04/93	2
16	Andrés	Manuel	Rojas	Campos	2600	05/06/89	2
17	Gloria	Estela	Molina	Fuentes	2700	01/12/90	2
18	Raúl	Emilio	Salinas	Quintero	2800	10/10/88	2
19	Natalia	Rosa	Cifuentes	Valdez	2900	05/05/92	2

Código:

The screenshot shows the Oracle SQL Developer interface. In the top navigation bar, there are tabs for 'Página de bienvenida', 'ge~3', 'ge~4', 'ge~5', and 'PEOPLE'. Below the tabs, the main workspace has a title 'Hoja de Trabajo' and a sub-tab 'Generador de Consultas'. A script editor window contains the following SQL code:

```
UPDATE people SET first_name = 'Marcela' Where id = 2;
COMMIT;
```

In the bottom left corner, there is a 'Salida de Script' (Script Output) window. It displays the message '1 fila actualizadas.' (1 row updated.) and 'Confirmación terminada.' (Confirmation completed.). The status bar at the bottom indicates 'Tarea terminada en 0.212 segundos' (Task completed in 0.212 seconds).

Tabla después del código:

The screenshot shows the Oracle SQL Developer interface with the PEOPLE table selected. The table contains 20 rows of data with columns: ID, FIRST_NAME, SECOND_NAME, FIRST_SURNAME, SECOND_SURNAME, SALARY, BIRTHDAY, and ID_TYPE_PERSON. The data includes names like Juan, Marcela, Pedro, Ana, Luis, Sofia, Miguel, Laura, Carlos, Elena, Patricia, Jorge, Cecilia, Ricardo, Veronica, Andres, Gloria, Raúl, and Natalia, along with their respective salaries and birthdates.

ID	FIRST_NAME	SECOND_NAME	FIRST_SURNAME	SECOND_SURNAME	SALARY	BIRTHDAY	ID_TYPE_PERSON
1	Juan	Carlos	Pérez	Gómez	15000	10/05/80	1
2	Marcela	Luisa	Martínez	López	15000	15/03/78	1
3	Pedro	Alberto	Sánchez	Ramírez	16000	20/07/85	1
4	Ana	Isabel	Hernández	Morales	16000	05/11/82	1
5	Luis	Fernando	García	Torres	17000	28/02/79	1
6	Sofía	Elena	Ruiz	Castro	17000	12/09/83	2
7	Miguel	Ángel	Díaz	Vargas	18000	03/04/81	2
8	Laura	Milagros	Moreno	Ramos	18000	17/08/94	2
9	Carlos	Andrés	Ortiz	Silva	19000	22/12/77	2
10	Elena	Beatriz	Mendoza	Cruz	19000	30/06/86	2
11	Patricia	Soledad	Vega	Delgado	2100	22/03/92	2
12	Jorge	Andrés	Castro	Muñoz	2200	07/07/88	2
13	Cecilia	Marina	Romero	Paredes	2300	18/09/91	2
14	Ricardo	Fabián	Guerrero	Cabrera	2400	11/11/87	2
15	Verónica	Diana	Aguilar	Soto	2500	25/04/93	2
16	Andrés	Manuel	Rojas	Campos	2600	05/06/89	2
17	Gloria	Estela	Molina	Fuentes	2700	01/12/90	2
18	Raúl	Emilio	Salinas	Quintero	2800	10/10/88	2
19	Natalia	Rosa	Cifuentes	Valdez	2900	05/05/92	2

7. Actualice un tipo de teléfono para cambiarle el nombre a ‘Celular’. 5 pts.

Antes de realizar el cambio ya teníamos el nombre de ‘Celular’ por lo que se decidió actualizar el nombre de ‘Fax’ a ‘Celular’ para la demostración:

The screenshot shows the Oracle SQL Developer interface with the TYPE_PHONE table selected. The table contains 4 rows of data with columns: ID and NAME. The data includes entries for Casa, Celular, Oficina, and Fax.

ID	NAME
1	1 Casa
2	2 Celular
3	3 Oficina
4	4 Fax

Código aplicado:

The screenshot shows the Oracle SQL Developer interface with the Hoja de Trabajo tab active. The code entered is:

```
UPDATE type_phone SET name = 'Celular' WHERE id = 4;
COMMIT;
```

The Salida de Script panel shows the results:

```
1 fila actualizadas.

Confirmación terminada.
```

Resultado del cambio de nombre:

The screenshot shows a table named 'TYPE_PHONE' with two columns: 'ID' and 'NAME'. The data consists of four rows:

ID	NAME
1	1 Casa
2	2 Celular
3	3 Oficina
4	4 Celular

8. Aumente el salario en un 15% a las personas que tengan más de 30 años. 10 pts.

Tabla antes del aumento de salario:

The screenshot shows the 'PEOPLE' table from the 'BUY' schema. The table has 19 rows and the following columns: ID, FIRST_NAME, SECOND_NAME, FIRST_SURNAME, SECOND_SURNAME, SALARY, BIRTHDAY, and ID_TYPE_PERSON. The data includes names like Juan, Marcela, Pedro, Ana, Luis, Sofía, Miguel, Laura, Carlos, Elena, Patricia, Jorge, Cecilia, Ricardo, Verónica, Andrés, Gloria, Raúl, and Natalia, along with their salaries ranging from 15000 to 29000.

ID	FIRST_NAME	SECOND_NAME	FIRST_SURNAME	SECOND_SURNAME	SALARY	BIRTHDAY	ID_TYPE_PERSON
1	Juan	Carlos	Pérez	Gómez	15000	10/05/80	1
2	Marcela	Luisa	Martínez	López	15000	15/03/78	1
3	Pedro	Alberto	Sánchez	Ramírez	16000	20/07/85	1
4	Ana	Isabel	Hernández	Morales	16000	05/11/82	1
5	Luis	Fernando	García	Torres	17000	28/02/79	1
6	Sofía	Elena	Ruiz	Castro	17000	12/09/93	2
7	Miguel	Ángel	Díaz	Vargas	18000	03/04/81	2
8	Laura	Milagros	Moreno	Ramos	18000	17/08/84	2
9	Carlos	Andrés	Ortiz	Silva	19000	22/12/77	2
10	Elena	Beatriz	Mendoza	Cruz	19000	30/06/86	2
11	Patricia	Soledad	Vega	Delgado	2100	22/03/92	2
12	Jorge	Andrés	Castro	Muñoz	2200	07/07/88	2
13	Cecilia	Marina	Romero	Paredes	2300	18/09/91	2
14	Ricardo	Fabián	Guerrero	Cabrera	2400	11/11/87	2
15	Verónica	Diana	Aguilar	Soto	2500	25/04/93	2
16	Andrés	Manuel	Rojas	Campos	2600	05/06/89	2
17	Gloria	Estela	Molina	Fuentes	2700	01/12/90	2
18	Raúl	Emilio	Salinas	Quintero	2800	10/10/88	2
19	Natalia	Rosa	Cifuentes	Valdez	2900	05/05/92	2

Código aplicado:

The screenshot shows an SQL script in the 'Hoja de Trabajo' tab:

```
UPDATE people SET salary = salary * 1.15 WHERE EXTRACT(YEAR FROM SYSDATE) - EXTRACT(YEAR FROM birthday)>30;
COMMIT;
```

The output window shows the results:

19 filas actualizadas.
Confirmación terminada.

Resultado después de aplicar el código:

The screenshot shows the Oracle SQL Developer interface with the 'PEOPLE' table selected in the central workspace. The table has 20 rows of data. The columns are: ID, FIRST_NAME, SECOND_NAME, FIRST_SURNAME, SECOND_SURNAME, SALARY, BIRTHDAY, and ID_TYPE_PERSON. The data includes names like Juan, Marcela, Pedro, Ana, Luis, Sofia, Miguel, Laura, Carlos, Elena, Patricia, Jorge, Cecilia, Ricardo, Veronica, Andres, Gloria, Raoul, and Natalia, along with their salaries and birthdates. The 'ID_TYPE_PERSON' column shows values 1 and 2.

ID	FIRST_NAME	SECOND_NAME	FIRST_SURNAME	SECOND_SURNAME	SALARY	BIRTHDAY	ID_TYPE_PERSON
1	Juan	Carlos	Pérez	Gómez	17250	10/05/80	1
2	Marcela	Luisa	Martinez	López	17250	15/03/78	1
3	Pedro	Alberto	Sánchez	Ramirez	18400	20/07/85	1
4	Ana	Isabel	Hernández	Morales	18400	05/11/82	1
5	Luis	Fernando	García	Torres	19550	28/02/79	1
6	Sofía	Elena	Ruiz	Castro	19550	12/09/83	2
7	Miguel	Angel	Díaz	Vargas	20700	03/04/81	2
8	Laura	Milagros	Moreno	Ramos	20700	17/08/84	2
9	Carlos	Andrés	Ortiz	Silva	21850	22/12/77	2
10	Elena	Beatriz	Mendoza	Cruz	21850	30/06/86	2
11	Patricia	Soledad	Vega	Delgado	2415	22/03/92	2
12	Jorge	Andrés	Castro	Muñoz	2530	07/07/88	2
13	Cecilia	Marina	Romero	Paredes	2645	18/09/91	2
14	Ricardo	Fabián	Guerrero	Cabrera	2760	11/11/87	2
15	Verónica	Diana	Aguilar	Soto	2875	25/04/93	2
16	Andrés	Manuel	Rojas	Campos	2990	05/06/89	2
17	Gloria	Estela	Molina	Fuentes	3105	01/12/90	2
18	Raúl	Emilio	Salinas	Quintero	3220	10/10/88	2
19	Natalia	Rosa	Cifuentes	Valdez	3335	05/05/92	2
20							

9. Asigne que 15 personas son clientes. 10pts.

Tabla de Type_People:

The screenshot shows the Oracle SQL Developer interface with the 'TYPE_PERSON' table selected in the central workspace. The table has 2 rows of data. The columns are: ID and NAME. The data includes rows for 'Employee' and 'Client'.

ID	NAME
1	Employee
2	Client

Tabla antes de la asignación de los clientes:

The screenshot shows the Oracle SQL Developer interface with the 'PEOPLE' table selected. The table contains 20 rows of data, each representing a person with columns: ID, FIRST_NAME, SECOND_NAME, FIRST_SURNAME, SECOND_SURNAME, SALARY, BIRTHDAY, and ID_TYPE_PERSON. The data includes names like Marcela, Luisa, Martínez, López, and salaries ranging from 19837.5 to 3835.25.

ID	FIRST_NAME	SECOND_NAME	FIRST_SURNAME	SECOND_SURNAME	SALARY	BIRTHDAY	ID_TYPE_PERSON
1	2 Marcela	Luisa	Martínez	López	19837.5	15-MAR-78	1
2	3 Pedro	Alberto	Sánchez	Ramírez	21160	20-JUL-85	1
3	4 Ana	Isabel	Hernández	Morales	21160	05-NOV-82	1
4	5 Luis	Fernando	García	Torres	22482.5	28-FEB-79	1
5	6 Sofía	Elena	Ruiz	Castro	22482.5	12-SEP-83	1
6	7 Miguel	Angel	Díaz	Vargas	23805	03-APR-81	1
7	8 Laura	Milagros	Moreno	Ramos	23805	17-AUG-84	1
8	9 Carlos	Andrés	Ortiz	Silva	25127.5	22-DEC-77	1
9	10 Elena	Beatriz	Mendoza	Cruz	25127.5	30-JUN-86	1
10	12 Patricia	SoledGE	Vega	DelgGEo	2777.25	22-MAR-92	1
11	13 Jorge	Andrés	Castro	Muñoz	2909.5	07-JUL-88	1
12	14 Cecilia	Marina	Romero	Paredes	3041.75	18-SEP-91	1
13	15 Ricardo	Fabián	Guerrero	Cabrera	3174	11-NOV-87	1
14	16 Verónica	Diana	Aguilar	Soto	3306.25	25-APR-93	1
15	17 Andrés	Manuel	Rojas	Campos	3438.5	05-JUN-89	1
16	18 Gloria	Estela	Molina	Fuentes	3570.75	01-DEC-90	1
17	19 Raúl	Emilio	Salinas	Quintero	3703	10-OCT-88	1
18	20 Natalia	Rosa	Cifuentes	Valdez	3835.25	05-MAY-92	1

Tabla después de la asignación de los 15 clientes:

The screenshot shows the Oracle SQL Developer interface with the PEOPLE table selected. The table contains 18 rows of data, each representing a person with columns: ID, FIRST_NAME, SECOND_NAME, FIRST_SURNAME, SECOND_SURNAME, SALARY, BIRTHDAY, and ID_TYPE_PERSON. The data includes names like Marcela, Luisa, Martínez, López, and various salaries and birthdates.

ID	FIRST_NAME	SECOND_NAME	FIRST_SURNAME	SECOND_SURNAME	SALARY	BIRTHDAY	ID_TYPE_PERSON
1	2 Marcela	Luisa	Martínez	López	19837.5	15-MAR-78	1
2	3 Pedro	Alberto	Sánchez	Ramirez	21160	20-JUL-85	1
3	4 Ana	Isabel	Hernández	Morales	21160	05-NOV-82	1
4	5 Luis	Fernando	García	Torres	22482.5	28-FEB-79	2
5	6 Sofía	Elena	Ruiz	Castro	22482.5	12-SEP-83	2
6	7 Miguel	Angel	Diaz	Vargas	23805	03-APR-81	2
7	8 Laura	Milagros	Moreno	Ramos	23805	17-AUG-84	2
8	9 Carlos	Andrés	Ortiz	Silva	25127.5	22-DEC-77	2
9	10 Elena	Beatriz	Mendoza	Cruz	25127.5	30-JUN-86	2
10	12 Patricia	SoledGE	Vega	DelgGEo	2777.25	22-MAR-92	2
11	13 Jorge	Andrés	Castro	Muñoz	2909.5	07-JUL-88	2
12	14 Cecilia	Marina	Romero	Paredes	3041.75	18-SEP-91	2
13	15 Ricardo	Fabián	Guerrero	Cabrera	3174	11-NOV-87	2
14	16 Verónica	Diana	Aguilar	Soto	3306.25	25-APR-93	2
15	17 Andrés	Manuel	Rojas	Campos	3438.5	05-JUN-89	2
16	18 Gloria	Estela	Molina	Fuentes	3570.75	01-DEC-90	2
17	19 Raúl	Emilio	Salinas	Quintero	3703	10-OCT-88	2
18	20 Natalia	Rosa	Cifuentes	Valdez	3835.25	05-MAY-92	2

10. Cree 15 productos. 10pts.

Se ingresan 15 productos a la tabla de PRODUCT.

The screenshot shows the Oracle SQL Developer interface with the PRODUCT table selected. The table contains 15 rows of data, each representing a product with columns: ID and NAME. The products listed include Detergente, Aceite, Shampoo, Cereal, Tomate, Queso, Harina, Azucar, Leche, Desodrante, Pescado, Natilla, Lechuga, Pasta, and Pollo.

ID	NAME
1	1 Detergente
2	2 Aceite
3	3 Shampoo
4	4 Cereal
5	5 Tomate
6	6 Queso
7	7 Harina
8	8 Azucar
9	9 Leche
10	10 Desodrante
11	11 Pescado
12	12 Natilla
13	13 Lechuga
14	14 Pasta
15	15 Pollo

11. Cree compras para 7 clientes. Al menos 5 de ellos deben tener más de 2 compras y también más de 1 producto por compra. 10 pts.

Primero se deben insertar todas las compras realizadas en la tabla CART:

ID	DATE_PURCHASE
1	04-JAN-25
2	02-APR-25
3	31-MAR-25
4	12-MAR-25
5	03-FEB-25
6	25-JAN-25
7	10-JAN-25
8	01-JAN-25
9	02-APR-25
10	02-APR-25
11	17-FEB-25
12	13-MAR-25
13	13-MAR-25
14	08-FEB-25
15	21-JAN-25
16	01-APR-25
17	28-FEB-25

Después, en la tabla BUY se puede apreciar cuáles clientes hicieron cuáles compras:

ID_PERSONA	ID_CART
1	5
2	5
3	5
4	6
5	6
6	6
7	7
8	7
9	7
10	8
11	8
12	8
13	9
14	9
15	9
16	10
17	12

Por último, se saben cuales productos pertenecen a cuál compra gracias a la tabla PRODUCTXCART:

The screenshot shows the Oracle SQL Developer interface with the 'PRODUCTXCART' table selected in the tabs at the top. The table has two columns: 'ID_CART' and 'ID_PRODUCT'. The data is presented in two sections: rows 1 through 23, and rows 18 through 42.

	ID_CART	ID_PRODUCT
1	1	1
2	1	12
3	1	5
4	2	2
5	2	15
6	3	12
7	3	4
8	3	9
9	3	11
10	4	5
11	4	6
12	5	7
13	5	14
14	5	1
15	6	15
16	6	2
17	7	13
18	7	4
19	8	8
20	8	3
21	8	1
22	9	15
23	9	10
24	10	11
25	10	4
26	10	3
27	10	9
28	10	13
29	11	2
30	11	6
31	12	14
32	12	12
33	13	7
34	13	10
35	14	11
36	14	15
37	15	6
38	15	1
39	16	9
40	16	14
41	17	2
42	17	15

12. Cambie el tipo de dato de una columna que ya tenga datos. ¿Qué sucede? 5 pts.

Se intenta cambiar el tipo de dato en una columna que ya tiene valores:

The screenshot shows the Oracle SQL Worksheet interface. In the main area, a script named 12.sql is being run. The script contains the following code:

```
-- Archivo: 12.sql
-- Descripción:
--   Se intenta cambiar el tipo de dato del atributo first_name de la tabla People
--   de VARCHAR2 a NUMBER.
--   Ocurre que si la columna tiene datos, el tipo de dato no se puede cambiar.
ALTER TABLE GE.PEOPLE MODIFY (first_name NUMBER(6));
```

In the Script Output pane below, the command is executed and an error is returned:

```
Error starting at line : 6 in command -
ALTER TABLE GE.PEOPLE MODIFY (first_name NUMBER(6))
Error report -
ORA-01439: column to be modified must be empty to change datatype

https://docs.oracle.com/error-help/db/ora-01439/01439. 00000 - "column to be modified must be empty to change
*Cause: An ALTER TABLE MODIFY statement attempted to change the
datatype of a column containing data. A column whose datatype
was to be altered must contain only NULL values.
*Action: To alter the datatype, first set all values in the
column to NULL.
```

Lo que sucede es que se da un error que menciona que para cambiar el tipo de dato de una columna esta debe estar vacía.