

CREACIÓN BASE DE DATOS RELACIONALES

-- Creando base de datos

```
mysql> CREATE DATABASE CADPH;  
Query OK, 1 row affected (0.11 sec)
```

-- Dando uso a la BD CADPH

```
mysql> USE CADPH;  
Database changed
```

-- Creando tabla titulada

```
mysql> CREATE TABLE Titulada(  
-> id INT (20) UNIQUE PRIMARY KEY,  
-> nombre_apellido VARCHAR (50) UNIQUE NOT NULL,  
-> correo VARCHAR(50) UNIQUE NOT NULL,  
-> edad INT UNSIGNED NOT NULL,  
-> direccion VARCHAR(20) NOT NULL,  
-> ciudad VARCHAR(20) NOT NULL,  
-> estado ENUM('Activo', 'Inactivo') DEFAULT 'Inactivo',  
-> formación ENUM('Técnico', 'Tecnólogo') DEFAULT 'Tecnólogo',  
-> creado TIMESTAMP DEFAULT CURRENT_TIMESTAMP  
-> );  
Query OK, 0 rows affected, 1 warning (0.05 sec)
```

-- Insertando registros en la tabla titulada

```
mysql> INSERT INTO Titulada (id, nombre_apellido, correo, edad, direccion, ciudad, estado, formación) VALUES  
-> (123416789, 'María Rodríguez', 'maria.rodriguez@misena.com', 25, 'Calle 123', 'Bogotá', 'Activo', 'Tecnólogo'),  
-> (987654321, 'Juan García', 'juan.garcia@misena.com', 30, 'Carrera 456', 'Medellín', 'Activo', 'Técnico'),  
-> (456789123, 'Laura Gómez', 'laura.gomez@misena.com', 28, 'Avenida 789', 'Cali', 'Activo', 'Tecnólogo'),  
-> (789123456, 'Carlos Martínez', 'carlos.martinez@misena.com', 24, 'Calle 456', 'Barranquilla', 'Activo', 'Técnico'),  
-> (234567890, 'Ana López', 'ana.lopez@misena.com', 22, 'Carrera 123', 'Cartagena', 'Activo', 'Tecnólogo'),  
-> (876543210, 'Pedro Ramírez', 'pedro.ramirez@misena.com', 26, 'Avenida 789', 'Santa Marta', 'Activo', 'Técnico'),  
-> (543210987, 'Sofía Perea', 'sofia.perea@misena.com', 29, 'Calle 123', 'Bucaramanga', 'Activo', 'Tecnólogo'),  
-> (901232567, 'Gabriel Torres', 'gabriel.torres@misena.com', 23, 'Carrera 456', 'Cúcuta', 'Activo', 'Técnico'),  
-> (678101234, 'Valentina Cortés', 'valentina.cortes@misena.com', 27, 'Avenida 789', 'Soledad', 'Activo', 'Tecnólogo'),  
-> (345618901, 'Andrés Giraldo', 'andres.giraldo@gmail.com', 31, 'Calle 456', 'Barrancabermeja', 'Activo', 'Técnico'),  
-> (189012345, 'Isabella Castro', 'isabella.castro@gmail.com', 29, 'Avenida 789', 'Manizales', 'Activo', 'Tecnólogo'),  
-> (456789012, 'Santiago López', 'santiago.lopez@gmail.com', 26, 'Carrera 123', 'Pereira', 'Activo', 'Técnico'),  
-> (123789456, 'Emma Ramírez', 'emma.ramirez@gmail.com', 28, 'Calle 123', 'Bello', 'Activo', 'Tecnólogo'),  
-> (987012145, 'Lucas Gómez', 'lucas.gomez@gmail.com', 25, 'Carrera 456', 'Itagüí', 'Activo', 'Técnico'),  
-> (234567810, 'Valentina Torres', 'valentina.torres@gmail.com', 27, 'Avenida 789', 'Envigado', 'Activo', 'Tecnólogo'),  
-> (176123456, 'Mariana Vargas', 'mariana.vargas@gmail.com', 30, 'Calle 123', 'Rionegro', 'Activo', 'Técnico'),  
-> (543456189, 'Mateo González', 'mateo.gonzalez@gmail.com', 24, 'Carrera 456', 'Quibdó', 'Activo', 'Tecnólogo'),  
-> (901214567, 'Emilia Perea', 'emilia.perea@hotmail.com', 26, 'Avenida 789', 'Florencia', 'Activo', 'Técnico'),  
-> (678901234, 'Benjamin Cárdenas', 'benjamin.cardenas@hotmail.com', 29, 'Calle 123', 'Popayán', 'Activo', 'Tecnólogo'),  
-> (345678941, 'Renata Castro', 'renata.castro@hotmail.com', 25, 'Carrera 123', 'Neiva', 'Activo', 'Técnico'),  
-> (123789012, 'Valeria Pacheco', 'valeria.pacheco@hotmail.com', 28, 'Calle 123', 'Arauca', 'Activo', 'Técnico'),  
-> (987012345, 'Lucía Valencia', 'lucia.valencia@hotmail.com', 25, 'Carrera 456', 'Yopal', 'Activo', 'Tecnólogo'),  
-> (234567890, 'Maximiliano Gómez', 'maximiliano.gomez@hotmail.com', 27, 'Avenida 789', 'Puerto Carreño', 'Activo', 'Técnico'),  
-> (876123456, 'Camila López', 'camila.lopez@hotmail.com', 30, 'Calle 123', 'Quiriguá', 'Activo', 'Tecnólogo'),  
-> (543456789, 'Emilio Castro', 'emilio.castro@yahoo.com', 24, 'Carrera 456', 'Aracataca', 'Activo', 'Técnico'),  
-> (901235567, 'Renata Cárdenas', 'renata.cardenas@yahoo.com', 26, 'Avenida 789', 'Magangué', 'Activo', 'Tecnólogo'),  
-> (678901234, 'Santino Londoño', 'santino.londono@yahoo.com', 29, 'Calle 123', 'Quimbaya', 'Activo', 'Técnico'),  
-> (345678901, 'Isabela Torres', 'isabela.torres@yahoo.com', 25, 'Carrera 123', 'Manzanares', 'Activo', 'Tecnólogo'),  
-> (789012345, 'Santiago Ramírez', 'santiago.ramirez@yahoo.com', 27, 'Avenida 789', 'Anorí', 'Activo', 'Técnico'),  
-> (123456789, 'Valentina Vargas', 'valentina.vargas@yahoo.com', 26, 'Calle 123', 'Peñol', 'Activo', 'Tecnólogo');  
Query OK, 30 rows affected (0.01 sec)  
Records: 30 Duplicates: 0 Warnings: 0
```

-- Así queda la tabla con los registros

```
mysql> SELECT * FROM Titulada;
```

| id | nombre_apellido | correo | edad | direccion | ciudad | estado | formación | creado |
|-----------|-------------------|-----------------------------------|------|-------------|-----------------|--------|-----------|---------------------|
| 123416789 | María Rodríguez | maria.rodriguez@misena.com | 25 | Calle 123 | Bogotá | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 123456789 | Valentina Vargas | valentina.vargas@yahoo.com | 26 | Calle 123 | Peñol | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 123789012 | Valeria Pacheco | valeria.pacheco@hotmail.com.com | 28 | Calle 123 | Arauca | Activo | Técnico | 2023-07-19 21:54:35 |
| 123789456 | Emma Ramirez | emma.ramirez@gmail.com | 28 | Calle 123 | Bello | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 176123456 | Mariana Vargas | mariana.vargas@gmail.com | 30 | Calle 123 | Rionegro | Activo | Técnico | 2023-07-19 21:54:35 |
| 189012345 | Isabella Castro | isabella.castro@gmail.com | 29 | Avenida 789 | Manizales | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 234527890 | Ana López | ana.lopez@misena.com | 22 | Carrera 123 | Cartagena | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 234567810 | Valentina Torres | valentina.torres@gmail.com | 27 | Avenida 789 | Envigado | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 234567890 | Maximiliano Gómez | maximiliano.gomez@hotmail.com.com | 27 | Avenida 789 | Puerto Carreño | Activo | Técnico | 2023-07-19 21:54:35 |
| 345618901 | Andrés Giraldo | andres.giraldo@gmail.com | 31 | Calle 456 | Barrancabermeja | Activo | Técnico | 2023-07-19 21:54:35 |
| 345678901 | Isabela Torres | isabela.torres@yahoo.com | 25 | Carrera 123 | Manzanares | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 345678941 | Renata Castro | renata.castro@hotmail.com.com | 25 | Carrera 123 | Neiva | Activo | Técnico | 2023-07-19 21:54:35 |
| 456789012 | Santiago López | santiago.lopez@gmail.com | 26 | Carrera 123 | Pereira | Activo | Técnico | 2023-07-19 21:54:35 |
| 456789123 | Laura Gómez | laura.gomez@misena.com | 28 | Avenida 789 | Cali | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 543210987 | Sofía Perea | sofia.perea@misena.com | 29 | Calle 123 | Bucaramanga | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 543456189 | Mateo González | mateo.gonzalez@gmail.com | 24 | Carrera 456 | Quibdó | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 543456789 | Emilio Castro | emilio.castro@yahoo.com | 24 | Carrera 456 | Aracataca | Activo | Técnico | 2023-07-19 21:54:35 |
| 678001234 | Benjamín Cárdenas | benjamin.cardenas@hotmail.com.com | 29 | Calle 123 | Popayán | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 678101234 | Valentina Cortés | valentina.cortes@misena.com | 27 | Avenida 789 | Soledad | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 678901234 | Santino Londoño | santino.londono@yahoo.com | 29 | Calle 123 | Quimbaya | Activo | Técnico | 2023-07-19 21:54:35 |
| 789012345 | Santiago Ramirez | santiago.ramirez@yahoo.com | 27 | Avenida 789 | Anorí | Activo | Técnico | 2023-07-19 21:54:35 |
| 789123456 | Carlos Martínez | carlos.martinez@misena.com | 24 | Calle 456 | Barranquilla | Activo | Técnico | 2023-07-19 21:54:35 |
| 876123456 | Camila López | camila.lopez@hotmail.com.com | 30 | Calle 123 | Quiriguá | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 876543210 | Pedro Ramirez | pedro.ramirez@misena.com | 26 | Avenida 789 | Santa Marta | Activo | Técnico | 2023-07-19 21:54:35 |
| 901214567 | Emilia Perea | emilia.perea@hotmail.com.com | 26 | Avenida 789 | Florencia | Activo | Técnico | 2023-07-19 21:54:35 |
| 901232567 | Gabriel Torres | gabriel.torres@misena.com | 23 | Carrera 456 | Cúcuta | Activo | Técnico | 2023-07-19 21:54:35 |
| 901235678 | Renata Cárdenas | renata.cardenas@yahoo.com | 26 | Avenida 789 | Magangué | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 987012145 | Lucas Gómez | lucas.gomez@gmail.com | 25 | Carrera 456 | Itagüí | Activo | Técnico | 2023-07-19 21:54:35 |
| 987012345 | Lucía Valencia | lucia.valencia@hotmail.com.com | 25 | Carrera 456 | Yopal | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 987654321 | Juan García | juan.garcia@misena.com | 30 | Carrera 456 | Medellín | Activo | Técnico | 2023-07-19 21:54:35 |

30 rows in set (0.00 sec)

-- Actualizando el correo para el Id de Gabriel.

```
mysql> UPDATE Titulada SET correo = "gabrielito101.torresP@gmail.com" WHERE id = 901234567;
Query OK, 0 rows affected (0.00 sec)
Rows matched: 0 Changed: 0 Warnings: 0
```

-- Eliminando el registro de la forma tradicional el registro de Camila.

```
mysql> DELETE FROM titulada WHERE id = 876123456;
Query OK, 1 row affected (0.00 sec)
```

-- No se encuentra el registro

```
mysql> SELECT * FROM Titulada;
```

| id | nombre_apellido | correo | edad | direccion | ciudad | estado | formación | creado |
|-----------|-------------------|-----------------------------------|------|-------------|-----------------|--------|-----------|---------------------|
| 123416789 | María Rodríguez | maria.rodriguez@misena.com | 25 | Calle 123 | Bogotá | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 123456789 | Valentina Vargas | valentina.vargas@yahoo.com | 26 | Calle 123 | Peñol | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 123789012 | Valeria Pacheco | valeria.pacheco@hotmail.com.com | 28 | Calle 123 | Arauca | Activo | Técnico | 2023-07-19 21:54:35 |
| 123789456 | Emma Ramirez | emma.ramirez@gmail.com | 28 | Calle 123 | Bello | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 176123456 | Mariana Vargas | mariana.vargas@gmail.com | 30 | Calle 123 | Rionegro | Activo | Técnico | 2023-07-19 21:54:35 |
| 189012345 | Isabella Castro | isabella.castro@gmail.com | 29 | Avenida 789 | Manizales | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 234527890 | Ana López | ana.lopez@misena.com | 22 | Carrera 123 | Cartagena | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 234567810 | Valentina Torres | valentina.torres@gmail.com | 27 | Avenida 789 | Envigado | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 234567890 | Maximiliano Gómez | maximiliano.gomez@hotmail.com.com | 27 | Avenida 789 | Puerto Carreño | Activo | Técnico | 2023-07-19 21:54:35 |
| 345618901 | Andrés Giraldo | andres.giraldo@gmail.com | 31 | Calle 456 | Barrancabermeja | Activo | Técnico | 2023-07-19 21:54:35 |
| 345678901 | Isabela Torres | isabela.torres@yahoo.com | 25 | Carrera 123 | Manzanares | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 345678941 | Renata Castro | renata.castro@hotmail.com.com | 25 | Carrera 123 | Neiva | Activo | Técnico | 2023-07-19 21:54:35 |
| 456789012 | Santiago López | santiago.lopez@gmail.com | 26 | Carrera 123 | Pereira | Activo | Técnico | 2023-07-19 21:54:35 |
| 456789123 | Laura Gómez | laura.gomez@misena.com | 28 | Avenida 789 | Cali | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 543210987 | Sofía Perea | sofia.perea@misena.com | 29 | Calle 123 | Bucaramanga | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 543456189 | Mateo González | mateo.gonzalez@gmail.com | 24 | Carrera 456 | Quibdó | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 543456789 | Emilio Castro | emilio.castro@yahoo.com | 24 | Carrera 456 | Aracataca | Activo | Técnico | 2023-07-19 21:54:35 |
| 678001234 | Benjamín Cárdenas | benjamin.cardenas@hotmail.com.com | 29 | Calle 123 | Popayán | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 678101234 | Valentina Cortés | valentina.cortes@misena.com | 27 | Avenida 789 | Soledad | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 678901234 | Santino Londoño | santino.londono@yahoo.com | 29 | Calle 123 | Quimbaya | Activo | Técnico | 2023-07-19 21:54:35 |
| 789012345 | Santiago Ramirez | santiago.ramirez@yahoo.com | 27 | Avenida 789 | Anorí | Activo | Técnico | 2023-07-19 21:54:35 |
| 789123456 | Carlos Martínez | carlos.martinez@misena.com | 24 | Calle 456 | Barranquilla | Activo | Técnico | 2023-07-19 21:54:35 |
| 876543210 | Pedro Ramirez | pedro.ramirez@misena.com | 26 | Avenida 789 | Santa Marta | Activo | Técnico | 2023-07-19 21:54:35 |
| 901214567 | Emilia Perea | emilia.perea@hotmail.com.com | 26 | Avenida 789 | Florencia | Activo | Técnico | 2023-07-19 21:54:35 |
| 901232567 | Gabriel Torres | gabriel.torres@misena.com | 23 | Carrera 456 | Cúcuta | Activo | Técnico | 2023-07-19 21:54:35 |
| 901235678 | Renata Cárdenas | renata.cardenas@yahoo.com | 26 | Avenida 789 | Magangué | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 987012145 | Lucas Gómez | lucas.gomez@gmail.com | 25 | Carrera 456 | Itagüí | Activo | Técnico | 2023-07-19 21:54:35 |
| 987012345 | Lucía Valencia | lucia.valencia@hotmail.com.com | 25 | Carrera 456 | Yopal | Activo | Tecnólogo | 2023-07-19 21:54:35 |
| 987654321 | Juan García | juan.garcia@misena.com | 30 | Carrera 456 | Medellín | Activo | Técnico | 2023-07-19 21:54:35 |

-- Eliminar los registros de la tabla.

```
mysql> TRUNCATE TABLE Titulada;  
Query OK, 0 rows affected (0.02 sec)
```

EJERCICIO 2

-- Creamos la base datos a utilizar

```
mysql> CREATE DATABASE FACTURACION;  
Query OK, 1 row affected (0.00 sec)
```

-- Asignamos la base de datos que utilizaremos

```
mysql> USE FACTURACION;  
Database changed
```

-- Creamos la tabla que representara a los clientes

```
mysql> CREATE TABLE clientes(  
->     id_clientes VARCHAR (30) UNIQUE PRIMARY KEY,  
->     nombre VARCHAR (25) UNIQUE NOT NULL,  
->     apellido VARCHAR (25) UNIQUE NOT NULL,  
->     direccion VARCHAR (20) NOT NULL,  
->     telefono VARCHAR (20) NOT NULL,  
->     correo VARCHAR (50) UNIQUE NOT NULL,  
->     municipio VARCHAR(20),  
->     departamento VARCHAR(20),  
->     pais VARCHAR (20) CHECK (pais='Colombia'),  
->     creado TIMESTAMP DEFAULT CURRENT_TIMESTAMP  
-> );  
Query OK, 0 rows affected (0.01 sec)
```

-- Creamos la tabla para las facturas.

```
mysql> CREATE TABLE factura(  
->     num_factura VARCHAR (20) UNIQUE PRIMARY KEY,  
->     id_clientes VARCHAR (30),  
->     id_producto VARCHAR (30),  
->     creado TIMESTAMP DEFAULT CURRENT_TIMESTAMP  
-> );  
Query OK, 0 rows affected (0.01 sec)
```

-- Creamos los productos del comercio.

```
mysql> CREATE TABLE productos(  
->     id_producto VARCHAR (30) UNIQUE PRIMARY KEY,  
->     nombre VARCHAR (25) NOT NULL,  
->     precio INT (25) NOT NULL,  
->     stock INT (25) NOT NULL,  
->     num_factura VARCHAR (20),  
->     creado TIMESTAMP DEFAULT CURRENT_TIMESTAMP  
-> );  
Query OK, 0 rows affected, 2 warnings (0.01 sec)
```

-- Creamos llave foránea desde factura nombrándola como fk_clientes y haciendo referencia de la columna id_clientes en las dos tablas

```
mysql> ALTER TABLE factura  
-> ADD CONSTRAINT fk_clientes  
-> FOREIGN KEY (id_clientes) REFERENCES clientes(id_clientes);  
Query OK, 0 rows affected (0.02 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

-- Creamos la segunda llave foránea donde hará referencia a la columna id_producto en la tabla productos hacia esta tabla factura.

```
mysql> ALTER TABLE factura  
-> ADD CONSTRAINT fk_productos  
-> FOREIGN KEY (id_producto) REFERENCES productos(id_producto);  
Query OK, 0 rows affected (0.02 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

-- Creamos llave foránea haciendo referencia a la factura

```
mysql> ALTER TABLE productos  
-> ADD CONSTRAINT fk_factura  
-> FOREIGN KEY (num_factura) REFERENCES factura(num_factura);  
Query OK, 0 rows affected (0.02 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

-- Inicialmente ingresamos los productos existentes

```
mysql> INSERT INTO productos (id_producto, nombre, precio, stock) VALUES
-> ('PROD001', 'Televisor LED', 800000, 10),
-> ('PROD002', 'Smartphone', 600000, 15),
-> ('PROD003', 'Laptop', 1200000, 5),
-> ('PROD004', 'Tablet', 400000, 8),
-> ('PROD005', 'Refrigerador', 1500000, 6),
-> ('PROD006', 'Microondas', 250000, 12),
-> ('PROD007', 'Impresora', 300000, 9),
-> ('PROD008', 'Cámara Digital', 500000, 7),
-> ('PROD009', 'Aspiradora', 180000, 20),
-> ('PROD010', 'Licuadora', 80000, 25);
Query OK, 10 rows affected (0.00 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

-- Agregamos los clientes que tiene el comercio

```
mysql> INSERT INTO clientes (id_clientes, nombre, apellido, direccion, telefono, correo, municipio, departamento, pais) VALUES
-> ('123456789', 'Ana', 'García', 'Calle 123', '3101234567', 'ana.garcia@gmail.com', 'Medellín', 'Antioquia', 'Colombia'),
-> ('987654321', 'Juan', 'Martínez', 'Carrera 456', '3159876543', 'juan.martinez@yahoo.com', 'Bogotá', 'Cundinamarca', 'Colombia'),
-> ('456789123', 'Laura', 'Gómez', 'Avenida 789', '3204567890', 'laura.gomez@hotmail.com', 'Cali', 'Valle del Cauca', 'Colombia'),
-> ('789123456', 'Carlos', 'López', 'Calle 456', '3177890123', 'carlos.lopez@gmail.com', 'Barranquilla', 'Atlántico', 'Colombia'),
-> ('234567890', 'María', 'Ramírez', 'Carrera 123', '3142345678', 'maria.ramirez@yahoo.com', 'Cartagena', 'Bolívar', 'Colombia');
Query OK, 5 rows affected (0.00 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

-- Al hacer una nueva compra se crea la factura con los datos del cliente y el producto a llevar

```
mysql> INSERT INTO factura (num_factura, id_clientes, id_producto) VALUES
-> ('FAC001', '123456789', 'PROD001'),
-> ('FAC002', '987654321', 'PROD002'),
-> ('FAC003', '456789123', 'PROD003'),
-> ('FAC004', '789123456', 'PROD004'),
-> ('FAC005', '234567890', 'PROD005'),
-> ('FAC006', '123456789', 'PROD006'),
-> ('FAC007', '987654321', 'PROD007'),
-> ('FAC008', '456789123', 'PROD008'),
-> ('FAC009', '789123456', 'PROD009'),
-> ('FAC010', '234567890', 'PROD010');
Query OK, 10 rows affected (0.00 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

-- Por lógica los datos deberían actualizarse en productos haciendo referencia a la factura que pertenece.

```
mysql> UPDATE productos SET num_factura ='FAC001' WHERE id_producto = 'PROD001';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE productos SET num_factura ='FAC002' WHERE id_producto = 'PROD002';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE productos SET num_factura ='FAC003' WHERE id_producto = 'PROD003';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE productos SET num_factura ='FAC004' WHERE id_producto = 'PROD004';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE productos SET num_factura ='FAC005' WHERE id_producto = 'PROD005';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE productos SET num_factura ='FAC006' WHERE id_producto = 'PROD006';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE productos SET num_factura ='FAC007' WHERE id_producto = 'PROD007';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE productos SET num_factura ='FAC008' WHERE id_producto = 'PROD008';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE productos SET num_factura ='FAC009' WHERE id_producto = 'PROD009';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE productos SET num_factura ='FAC0010' WHERE id_producto = 'PROD0010';
Query OK, 0 rows affected (0.00 sec)
Rows matched: 0  Changed: 0  Warnings: 0
```

-- De esta forma observamos los registros con sus relaciones

```
mysql> SELECT * FROM clientes, factura, productos;
```

| id_clientes | | nombre | apellido | direccion | telefono | correo | stock | | num_factura | creado | municipio | departamento | pais | creado | num_factura | id_clientes | id_producto | creado |
|-------------------|---------------|----------|-------------|------------|-------------------------|--------------|-----------------|----------|---------------------|--------|-----------|--------------|---------------------|--------|-------------|-------------|---------------------|--------|
| id_producto | | nombre | | precio | | | | | | | | | | | | | | |
| 123456789 | Ana | García | Calle 123 | 3101234567 | ana.garcia@gmail.com | Medellín | Antioquia | Colombia | 2023-07-19 19:48:32 | FAC810 | 234567890 | PROD810 | 2023-07-19 19:48:32 | 1 | 234567890 | PROD810 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 234567890 | Maria | Ramírez | Carrera 123 | 3142345678 | maria.ramirez@yahoo.com | Cartagena | Bolívar | Colombia | 2023-07-19 19:48:32 | FAC810 | 234567890 | PROD810 | 2023-07-19 19:48:32 | 1 | 234567890 | PROD810 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 456789123 | Laura | Gómez | Avenida 789 | 3204567890 | laura.gomez@hotmail.com | Calí | Valle del Cauca | Colombia | 2023-07-19 19:48:32 | FAC810 | 234567890 | PROD810 | 2023-07-19 19:48:32 | 1 | 234567890 | PROD810 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 789123456 | Carlos | López | Calle 456 | 3177890123 | carlos.lopez@gmail.com | Barranquilla | Atlántico | Colombia | 2023-07-19 19:48:32 | FAC810 | 234567890 | PROD810 | 2023-07-19 19:48:32 | 1 | 234567890 | PROD810 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 907654321 | Juan | Martínez | Carrera 456 | 3159876543 | juan.martinez@yahoo.com | Bogotá | Cundinamarca | Colombia | 2023-07-19 19:48:32 | FAC810 | 234567890 | PROD810 | 2023-07-19 19:48:32 | 1 | 234567890 | PROD810 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 123456789 | Ana | García | Calle 123 | 3101234567 | ana.garcia@gmail.com | Medellín | Antioquia | Colombia | 2023-07-19 19:48:32 | FAC809 | 789123456 | PROD809 | 2023-07-19 19:48:32 | 1 | 789123456 | PROD809 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 234567890 | Maria | Ramírez | Carrera 123 | 3142345678 | maria.ramirez@yahoo.com | Cartagena | Bolívar | Colombia | 2023-07-19 19:48:32 | FAC809 | 789123456 | PROD809 | 2023-07-19 19:48:32 | 1 | 789123456 | PROD809 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 456789123 | Laura | Gómez | Avenida 789 | 3204567890 | laura.gomez@hotmail.com | Calí | Valle del Cauca | Colombia | 2023-07-19 19:48:32 | FAC809 | 789123456 | PROD809 | 2023-07-19 19:48:32 | 1 | 789123456 | PROD809 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 789123456 | Carlos | López | Calle 456 | 3177890123 | carlos.lopez@gmail.com | Barranquilla | Atlántico | Colombia | 2023-07-19 19:48:32 | FAC809 | 789123456 | PROD809 | 2023-07-19 19:48:32 | 1 | 789123456 | PROD809 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 907654321 | Juan | Martínez | Carrera 456 | 3159876543 | juan.martinez@yahoo.com | Bogotá | Cundinamarca | Colombia | 2023-07-19 19:48:32 | FAC809 | 789123456 | PROD809 | 2023-07-19 19:48:32 | 1 | 789123456 | PROD809 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 123456789 | Ana | García | Calle 123 | 3101234567 | ana.garcia@gmail.com | Medellín | Antioquia | Colombia | 2023-07-19 19:48:32 | FAC808 | 456789123 | PROD808 | 2023-07-19 19:48:32 | 1 | 456789123 | PROD808 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 234567890 | Maria | Ramírez | Carrera 123 | 3142345678 | maria.ramirez@yahoo.com | Cartagena | Bolívar | Colombia | 2023-07-19 19:48:32 | FAC808 | 456789123 | PROD808 | 2023-07-19 19:48:32 | 1 | 456789123 | PROD808 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 456789123 | Laura | Gómez | Avenida 789 | 3204567890 | laura.gomez@hotmail.com | Calí | Valle del Cauca | Colombia | 2023-07-19 19:48:32 | FAC808 | 456789123 | PROD808 | 2023-07-19 19:48:32 | 1 | 456789123 | PROD808 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 789123456 | Carlos | López | Calle 456 | 3177890123 | carlos.lopez@gmail.com | Barranquilla | Atlántico | Colombia | 2023-07-19 19:48:32 | FAC808 | 456789123 | PROD808 | 2023-07-19 19:48:32 | 1 | 456789123 | PROD808 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 907654321 | Juan | Martínez | Carrera 456 | 3159876543 | juan.martinez@yahoo.com | Bogotá | Cundinamarca | Colombia | 2023-07-19 19:48:32 | FAC808 | 456789123 | PROD808 | 2023-07-19 19:48:32 | 1 | 456789123 | PROD808 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 123456789 | Ana | García | Calle 123 | 3101234567 | ana.garcia@gmail.com | Medellín | Antioquia | Colombia | 2023-07-19 19:48:32 | FAC807 | 987654321 | PROD807 | 2023-07-19 19:48:32 | 1 | 987654321 | PROD807 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 234567890 | Maria | Ramírez | Carrera 123 | 3142345678 | maria.ramirez@yahoo.com | Cartagena | Bolívar | Colombia | 2023-07-19 19:48:32 | FAC807 | 987654321 | PROD807 | 2023-07-19 19:48:32 | 1 | 987654321 | PROD807 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 456789123 | Laura | Gómez | Avenida 789 | 3204567890 | laura.gomez@hotmail.com | Calí | Valle del Cauca | Colombia | 2023-07-19 19:48:32 | FAC807 | 987654321 | PROD807 | 2023-07-19 19:48:32 | 1 | 987654321 | PROD807 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 789123456 | Carlos | López | Calle 456 | 3177890123 | carlos.lopez@gmail.com | Barranquilla | Atlántico | Colombia | 2023-07-19 19:48:32 | FAC807 | 987654321 | PROD807 | 2023-07-19 19:48:32 | 1 | 987654321 | PROD807 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 907654321 | Juan | Martínez | Carrera 456 | 3159876543 | juan.martinez@yahoo.com | Bogotá | Cundinamarca | Colombia | 2023-07-19 19:48:32 | FAC807 | 987654321 | PROD807 | 2023-07-19 19:48:32 | 1 | 987654321 | PROD807 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 123456789 | Ana | García | Calle 123 | 3101234567 | ana.garcia@gmail.com | Medellín | Antioquia | Colombia | 2023-07-19 19:48:32 | FAC806 | 123456789 | PROD806 | 2023-07-19 19:48:32 | 1 | 123456789 | PROD806 | 2023-07-19 19:48:32 | 1 |
| 9:51:42 PROD001 | Televisor LED | 8000000 | 10 | FAC001 | 2023-07-19 19:51:29 | | | | | | | | | | | | | |
| 234567890 | Maria | Ramírez | Carrera 123 | 3142345678 | maria.ramirez@yahoo.com | Cartagena | Bolívar | Colombia | 2023-07-19 19:48:32 | FAC806 | 123456789 | PROD806 | 2023-07-19 19:48:32 | 1 | 123456789 | PROD806 | 2023-07-19 19:48:32 | 1 |