

Mediante el uso de SQLite y Python elabore un archivo denominado "Base.db" que tenga la tabla siguiente, denominada "Clientes":

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
2	Ana Trujillo Emparedados y helados	Ana Trujillo	Avda. de la Constitucion 2222	Mexico D.F.	5021	Mexico
3	Antonio Moreno Taqueria	Antonio Moreno	Mataderos 2312	Mexico D.F.	5023	Mexico
4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK
5	Berglunds snabbkop	Christina Berglund	Berguvsvigen 8	Lule	S-958 22	Sweden
6	Blauer See Delikatessen	Hanna Moos	Forsterstr. 57	Mannheim	68306	Germany
7	Blondel pere et fils	Frederique Citeaux	24, place Klüber	Strasbourg	67000	France
8	Bolido Comidas preparadas	Martín Sommer	C/ Araquil, 67	Madrid	28023	Spain
9	Bon app'	Laurence Leblhans	12, rue des Bouchers	Marseille	13008	France
10	Bottom-Dollar Marketse	Elizabeth Lincoln	23 Tsawassen Blvd.	Tsawassen	T2F 8M4	Canada

```
In [1]: import sqlite3
```

```
In [3]: # Creamos al conexión  
conn = sqlite3.connect('Base.db')
```

```
In [32]: conn.cursor()
```

```
Out[32]: <sqlite3.Cursor at 0x2140a5218c0>
```

```
In [4]: cur = conn.cursor()
```

```
In [5]: # creamos la tabla Clientes  
cur.execute("""  
    CREATE TABLE Clientes(  
        CustomerID INTEGER PRIMARY KEY,  
        CustomerName TEXT NOT NULL,  
        ContactName TEXT NOT NULL,  
        Address TEXT,  
        City TEXT,  
        PostalCode INTEGER,  
        Country TEXT,  
        PurchaseUSD INTEGER);  
""")
```

```
Out[5]: <sqlite3.Cursor at 0x1873cda40c0>
```

```
In [6]: # Insertamos valores  
lista_clientes = [  
    ('Alfreds Futterkiste', 'Maria Anders', 'Obere Str. 57', 'Berlin', 12209, 'Germany', 14861),  
    ('Ana Trujillo Emparedados y helados', 'Ana Trujillo', 'Avda. de la Constitucion 2222', 'Mexico D.F.', 5021, 'Mexico', 9900),  
    ('Antonio Moreno Taqueria', 'Antonio Moreno', 'Mataderos 2312', 'Mexico D.F.', 5023, 'Mexico', 7735),  
    ('Around the Horn', 'Thomas Hardy', '120 Hanover Sq.', 'London', 'WA1 1DP', 'UK', 10295),  
    ('Berglunds snabbkop', 'Christina Berglund', 'Berguvsvigen 8', 'Lule', 'S-958 22', 'Sweden', 6755),  
    ('Blauer See Delikatessen', 'Hanna Moos', 'Forsterstr. 57', 'Mannheim', 68306, 'Germany', 12721),  
    ('Blondel pere et fils', 'Frederique Citeaux', '24 place Klüber', 'Strasbourg', 67000, 'France', 11426),  
    ('Bolido Comidas preparadas', 'Martin Sommer', 'C/ Araquil, 67', 'Madrid', 28023, 'Spain', 17246),  
    ('Bon app', 'Laurence Leblhans', '12, rue des Bouchers', 'Marseille', 13008, 'France', 11816),  
    ('Bottom-Dollar Marketse', 'Elizabeth Lincoln', '23 Tsawassen Blvd.', 'Tsawassen', 'T2F 8M4', 'Canada', 6526)  
]
```

```
In [7]: # insertamos valores
cur.executemany(f"INSERT INTO Clientes(CustomerName, ContactName, Address, City, PostalCode, Country, PurchaseUSD) VALUES (?, ?, ?, ?, ?, ?, ?)", lista_clientes)
conn.commit()
```

insertamos valores

```
cur.executemany(f"INSERT INTO Clientes(CustomerName, ContactName, Address, City, PostalCode, Country, PurchaseUSD) VALUES (?, ?, ?, ?, ?, ?, ?)", lista_clientes)
```

```
conn.commit()
```

DB Browser for SQLite - C:\Users\Isaac\Bases.db

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Undo Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

Table: Clientes Filter in any column

	CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country	PurchaseUSD
	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany	14861
2	2	Ana Trujillo Emparedados y helados	Ana Trujillo	Avda. de la Constitucion 2222	Mexico D.F.	5021	Mexico	9900
3	3	Antonio Moreno Taqueria	Antonio Moreno	Mataderos 2312	Mexico D.F.	5023	Mexico	7735
4	4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	W1A 1DP	UK	10295
5	5	Berglunds snabbkop	Christina Berglund	Berguvsvägen 8	Luleå	S-951 82	Sweden	6755
6	6	Blauer See Delikatessen	Hanna Moos	Forsterstr. 57	Mannheim	68306	Germany	12149
7	7	Blondel père et fils	Frédérique Citeaux	24 place Kléber	Strasbourg	67000	France	11457
8	8	Bolido Comidas preparadas	Martin Sommer	C/ Araquil, 67	Madrid	28023	Spain	17250
9	9	Bon app	Laurence Leblanc	12, rue des Bouchers	Marseille	13008	France	11657
10	10	Bottom-Dollar Marketse	Elizabeth Lincoln	23 Tsawassen Blvd.	Tsawassen	T2F 0M4	Canada	6583

- Genere el archivo "Operaciones.sql" que detalle cada una de las acciones necesarias para crear la base de datos previa.

```
In [8]: for line in conn.iterdump():
        print(line)

BEGIN TRANSACTION;
CREATE TABLE Clientes(
  CustomerID INTEGER PRIMARY KEY,
  CustomerName TEXT NOT NULL,
  ContactName TEXT NOT NULL,
  Address TEXT,
  City TEXT,
  PostalCode INTEGER,
  Country TEXT,
  PurchaseUSD INTEGER);
INSERT INTO "Clientes" VALUES(1,'Alfreds Futterkiste','Maria Anders','Obere Str. 57','Berlin',12209,'Germany',14861);
INSERT INTO "Clientes" VALUES(2,'Ana Trujillo Emparedados y helados','Ana Trujillo','Avda. de la Constitucion 2222','Mexico D.F.',5021,'Mexico',9900);
INSERT INTO "Clientes" VALUES(3,'Antonio Moreno Taqueria','Antonio Moreno','Mataderos 2312','Mexico D.F.',5023,'Mexico',7735);
INSERT INTO "Clientes" VALUES(4,'Around the Horn','Thomas Hardy','120 Hanover Sq.','London','W1A 1DP','UK',10295);
INSERT INTO "Clientes" VALUES(5,'Berglunds snabbkop','Christina Berglund','Berguvsvägen 8','Luleå','S-951 82','Sweden',6755);
```

```
In [9]: with open('Operaciones.sql','w') as _file:
        for line in conn.iterdump():
            _file.write(f'{line}\n')
```

- Extraiga mediante una consulta en Python los primeros 5 clientes de la base de datos previa

```
In [10]: conn.execute("SELECT * FROM Clientes LIMIT 5;").fetchall()
```

```
Out[10]: [(1,
            'Alfreds Futterkiste',
            'Maria Anders',
            'Obere Str. 57',
            'Berlin',
            12209,
            'Germany',
            14861),
          (2,
            'Ana Trujillo Emparedados y helados',
            'Ana Trujillo',
            'Avda. de la Constitucion 2222',
            'Mexico D.F.',
            5021,
            'Mexico',
            9900),
          (3,
            'Antonio Moreno Taqueria',
            'Antonio Moreno',
            'Mataderos 2312',
            'Mexico D.F.',
            5023,
            'Mexico',
            7735),
          (4,
            'Around the Horn',
            'Thomas Hardy',
            '120 Hanover Sq.',
            'London',
            'WA1 1DP',
            'UK',
            10295),
          (5,
            'Berglunds snabbkop',
            'Christina Berglund',
            'Berguvsvägen 8',
            'Luleå',
            'S-958 22',
            'Sweden',
            6755)]
```

```
In [11]: # cerramos la conexión a la BD
         conn.close()
```