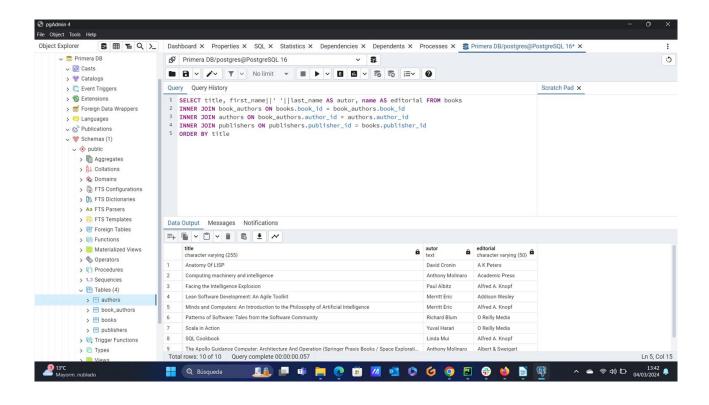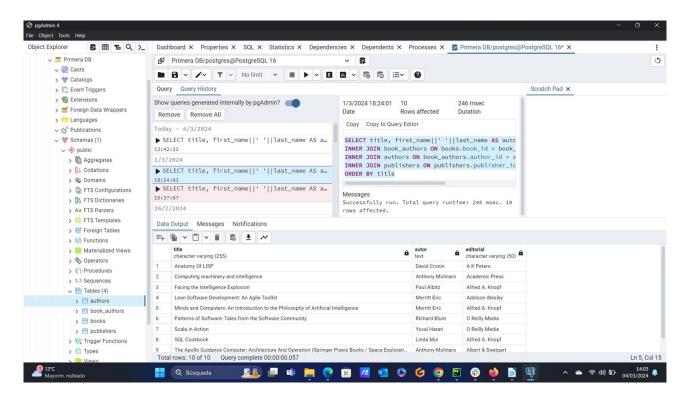# CREACIÓN DE BASE DE DATOS EN POSTGRESQL:



```sql
CREATE TABLE publishers(
    publisher_id INT NOT NULL,
    name VARCHAR(255) NOT NULL,
    PRIMARY KEY(publisher_id)
);

CREATE TABLE authors(
    author_id INT NOT NULL,
    first_name VARCHAR(100) NOT NULL,
    middle_name VARCHAR(50) NULL,
    last_name VARCHAR(100) NULL,
    PRIMARY KEY(author_id)
);

CREATE TABLE books(
    book_id INT NOT NULL,
    title VARCHAR(255) NOT NULL,
    total_pages INT NULL,
    rating DECIMAL(4, 2) NULL,
    isbn VARCHAR(13) NULL,
    published_date DATE,
    publisher_id INT NULL,
    PRIMARY KEY(book_id),
    CONSTRAINT fk_publisher FOREIGN KEY(publisher_id) REFERENCES publishers(publisher_id)
);

CREATE TABLE book_authors (
    book_id INT NOT NULL,
    author_id INT NOT NULL,
    PRIMARY KEY(book_id, author_id),
    CONSTRAINT fk_book FOREIGN KEY(book_id) REFERENCES books(book_id) ON DELETE CASCADE,
    CONSTRAINT fk_author FOREIGN KEY(author_id) REFERENCES authors(author_id) ON DELETE CASCADE
```

```sql
);
- publishers
INSERT INTO publishers(publisher_id, name) VALUES (1, 'O Reilly Media');
INSERT INTO publishers(publisher_id, name) VALUES (2, 'A Book Apart');
INSERT INTO publishers(publisher_id, name) VALUES (3, 'A K PETERS');
INSERT INTO publishers(publisher_id, name) VALUES (4, 'Academic Press');
INSERT INTO publishers(publisher_id, name) VALUES (5, 'Addison Wesley');
INSERT INTO publishers(publisher_id, name) VALUES (6, 'Albert&Sweigart');
INSERT INTO publishers(publisher_id, name) VALUES (7, 'Alfred A. Knopf');

-- authors
INSERT INTO authors (author_id, first_name, middle_name, last_name) VALUES (1, 'Merritt', null, 'Eric');
INSERT INTO authors (author_id, first_name, middle_name, last_name) VALUES (2, 'Linda', null, 'Mui');
INSERT INTO authors (author_id, first_name, middle_name, last_name) VALUES (3, 'Alecos', null, 'Papadatos');
INSERT INTO authors (author_id, first_name, middle_name, last_name) VALUES (4, 'Anthony', null, 'Molinaro');
INSERT INTO authors (author_id, first_name, middle_name, last_name) VALUES (5, 'David', null, 'Cronin');
INSERT INTO authors (author_id, first_name, middle_name, last_name) VALUES (6, 'Richard', null, 'Blum');
INSERT INTO authors (author_id, first_name, middle_name, last_name) VALUES (7, 'Yuval', 'Noah', 'Harari');
INSERT INTO authors (author_id, first_name, middle_name, last_name) VALUES (8, 'Paul', null, 'Albitz');

-- books
INSERT INTO books (book_id, title, total_pages, rating, isbn, published_date, publisher_id) VALUES (1, 'Lean Software Development: An Agile Toolkit', 240, 4.17, '9780320000000', '2003-05-18', 5);
INSERT INTO books (book_id, title, total_pages, rating, isbn, published_date, publisher_id) VALUES (2, 'Facing the Intelligence Explosion', 91, 3.87, null, '2013-02-01', 7);
INSERT INTO books (book_id, title, total_pages, rating, isbn, published_date, publisher_id) VALUES (3, 'Scala in Action', 419, 3.74, '9781940000000', '2013-04-10', 1);
INSERT INTO books (book_id, title, total_pages, rating, isbn, published_date, publisher_id) VALUES (4, 'Patterns of Software: Tales from the Software Community', 256, 3.84, '9780200000000', '1996-08-15', 1);
INSERT INTO books (book_id, title, total_pages, rating, isbn, published_date, publisher_id) VALUES (5, 'Anatomy Of LISP', 446, 4.43, '9780070000000', '1978-01-01', 3);
INSERT INTO books (book_id, title, total_pages, rating, isbn, published_date, publisher_id) VALUES (6, 'Computing machinery and intelligence', 24, 4.17, null, '2009-03-22', 4);
INSERT INTO books (book_id, title, total_pages, rating, isbn, published_date, publisher_id) VALUES (7, 'XML: Visual QuickStart Guide', 269, 3.66, '9780320000000', '2009-01-01', 5);
INSERT INTO books (book_id, title, total_pages, rating, isbn, published_date, publisher_id) VALUES (8, 'SQL Cookbook', 595, 3.95, '9780600000000', '2005-12-01', 7);
INSERT INTO books (book_id, title, total_pages, rating, isbn, published_date, publisher_id) VALUES (9, 'The Apollo Guidance Computer: Architecture And Operation (Springer Praxis Books / Space Exploration)', 439, 4.29, '9781440000000', '2010-07-01', 6);
INSERT INTO books (book_id, title, total_pages, rating, isbn, published_date, publisher_id) VALUES (10, 'Minds and Computers: An Introduction to the Philosophy of Artificial Intelligence', 222, 3.54, '9780750000000', '2007-02-13', 7);

-- book authors
INSERT INTO book_authors (book_id, author_id) VALUES (1, 1);
INSERT INTO book_authors (book_id, author_id) VALUES (2, 8);
INSERT INTO book_authors (book_id, author_id) VALUES (3, 7);
INSERT INTO book_authors (book_id, author_id) VALUES (4, 6);
INSERT INTO book_authors (book_id, author_id) VALUES (5, 5);
INSERT INTO book_authors (book_id, author_id) VALUES (6, 4);
INSERT INTO book_authors (book_id, author_id) VALUES (7, 3);
INSERT INTO book_authors (book_id, author_id) VALUES (8, 2);
INSERT INTO book_authors (book_id, author_id) VALUES (9, 4);
INSERT INTO book_authors (book_id, author_id) VALUES (10, 1);
```

## HISTORIAL DE CONSULTAS:



SELECT * FROM publishers


SELECT * FROM authors


SELECT * FROM books


SELECT first_name FROM authors
WHERE middle_name IS NOT NULL


SELECT first_name, last_name FROM authors
WHERE middle_name IS NULL


SELECT first_name||' '||middle_name||' '||last_name
FROM authors
WHERE middle_name


SELECT first_name||' '||last_name
FROM authors
WHERE middle_name IS NULL


SELECT first_name||' '||last_name AS nombre_completo
FROM authors
WHERE middle_name IS NULL


SELECT first_name||' '||last_name AS nombre_completo
FROM authors

```sql
SELECT title, published_date, name
FROM books
INNER JOIN publishers ON books.publisher_id = publishers.publisher_id


SELECT title, published_date, name
FROM books
INNER JOIN publishers ON books.publisher_id = publishers.publisher_id
WHERE name = 'Albert&Sweigart'


SELECT title, published_date, name
FROM books
INNER JOIN publishers ON books.publisher_id = publishers.publisher_id
WHERE name = 'Alfred A. Knopf'


SELECT title, published_date, name
FROM books
INNER JOIN publishers ON books.publisher_id = publishers.publisher_id
WHERE name = 'Alfred A. Knopf'
ORDER BY published_date ASC


SELECT title, first_name||' '||last_name AS autor FROM books
INNER JOIN book_authors ON books.book_id = book_authors.book_id
INNER JOIN authors ON book_authors.author_id = authors.author_id


SELECT title, first_name||' '||last_name AS autor FROM books
INNER JOIN book_authors ON books.book_id = book_authors.book_id
INNER JOIN authors ON book_authors.author_id = authors.author_id
WHERE EXTRACT(YEAR FROM published_date) < 2000
ORDER BY published_date ASC


SELECT title, first_name||' '||last_name, published_date AS autor FROM books
INNER JOIN book_authors ON books.book_id = book_authors.book_id
INNER JOIN authors ON book_authors.author_id = authors.author_id
WHERE EXTRACT(YEAR FROM published_date) < 2000
ORDER BY published_date ASC

SELECT title, first_name||' '||last_name AS autor, name, published_date FROM books
INNER JOIN book_authors ON books.book_id = book_authors.book_id
INNER JOIN authors ON book_authors.author_id = authors.author_id
INNER JOIN publishers ON publishers.publisher_id = books.publisher_id
ORDER BY published_date ASC


SELECT title, first_name||' '||last_name AS autor, name, published_date FROM books
INNER JOIN book_authors ON books.book_id = book_authors.book_id
INNER JOIN authors ON book_authors.author_id = authors.author_id
INNER JOIN publishers ON publishers.publisher_id = books.publisher_id
ORDER BY title


SELECT title, first_name||' '||last_name AS autor, name AS editorial, published_date FROM books
INNER JOIN book_authors ON books.book_id = book_authors.book_id
INNER JOIN authors ON book_authors.author_id = authors.author_id
INNER JOIN publishers ON publishers.publisher_id = books.publisher_id
WHERE first_name||' '||last_name LIKE 'A%' AND name = 'Albert&Sweigart'
ORDER BY published_date


SELECT title, first_name||' '||last_name AS autor, name AS editorial, published_date FROM books
INNER JOIN book_authors ON books.book_id = book_authors.book_id
INNER JOIN authors ON book_authors.author_id = authors.author_id
INNER JOIN publishers ON publishers.publisher_id = books.publisher_id
WHERE first_name||' '||last_name NOT LIKE 'A%' AND name = 'Albert&Sweigart'
ORDER BY published_date
```

```sql
SELECT title, first_name||' '||last_name AS autor, name AS editorial, published_date FROM books
INNER JOIN book_authors ON books.book_id = book_authors.book_id
INNER JOIN authors ON book_authors.author_id = authors.author_id
INNER JOIN publishers ON publishers.publisher_id = books.publisher_id
WHERE first_name||' '||last_name LIKE 'A%' AND name = 'Albert&Sweigart'
ORDER BY published_date


SELECT title, first_name||' '||last_name AS autor, name AS editorial, published_date FROM books
INNER JOIN book_authors ON books.book_id = book_authors.book_id
INNER JOIN authors ON book_authors.author_id = authors.author_id
INNER JOIN publishers ON publishers.publisher_id = books.publisher_id
ORDER BY name


DROP TABLE IF EXISTS tabla


DROP TABLE publishers


DROP TABLE book_authors


CREATE TABLE IF NOT EXISTS book_authors (
    book_id INT NOT NULL,
    author_id INT NOT NULL,
    PRIMARY KEY(book_id, author_id),
    CONSTRAINT fk_book FOREIGN KEY(book_id) REFERENCES books(book_id) ON DELETE CASCADE,
    CONSTRAINT fk_author FOREIGN KEY(author_id) REFERENCES authors(author_id) ON DELETE CASCADE
);


INSERT INTO book_authors (book_id, author_id) VALUES (1, 1);
INSERT INTO book_authors (book_id, author_id) VALUES (2, 8);
INSERT INTO book_authors (book_id, author_id) VALUES (3, 7);
INSERT INTO book_authors (book_id, author_id) VALUES (4, 6);
INSERT INTO book_authors (book_id, author_id) VALUES (5, 5);
INSERT INTO book_authors (book_id, author_id) VALUES (6, 4);
INSERT INTO book_authors (book_id, author_id) VALUES (7, 3);
INSERT INTO book_authors (book_id, author_id) VALUES (8, 2);
INSERT INTO book_authors (book_id, author_id) VALUES (9, 4);
INSERT INTO book_authors (book_id, author_id) VALUES (10, 1);


UPDATE publishers SET name = 'Albert & Sweigart'
WHERE publisher_id = 6


SELECT COUNT(title) FROM books WHERE isbn IS NULL


SELECT book_id, title FROM books WHERE isbn IS NULL


SELECT middle_name, COUNT(*) FROM authors GROUP BY middle_name


SELECT name, COUNT(title) AS n_libros, MAX(total_pages) AS mas_gordo, MIN(total_pages) AS mas_fino
FROM books
INNER JOIN publishers ON books.publisher_id = publishers.publisher_id
GROUP BY name


SELECT title, first_name||' '||last_name AS autor, name AS editorial FROM books
```

```sql
INNER JOIN publishers ON books.publisher_id = publishers.publisher_id
INNER JOIN book_authors ON books.book_id = book_authors.book_id
INNER JOIN authors ON authors.author_id = book_authors.author_id
WHERE isbn IS NULL
```