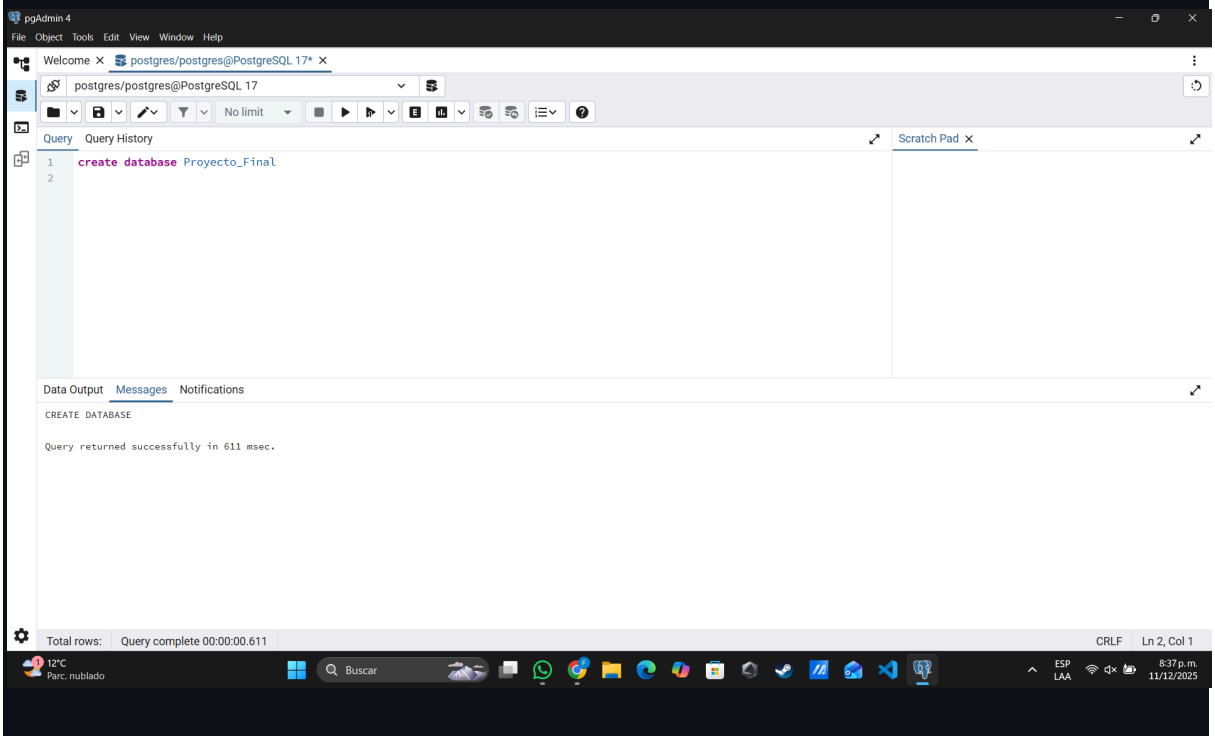
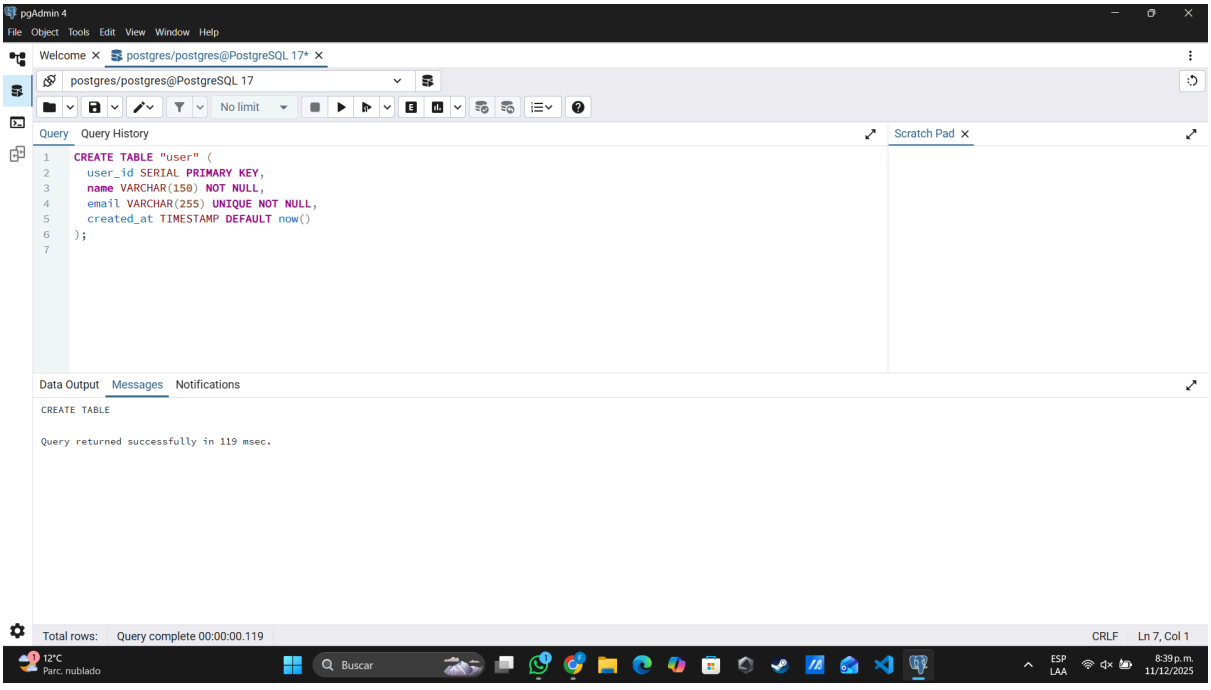
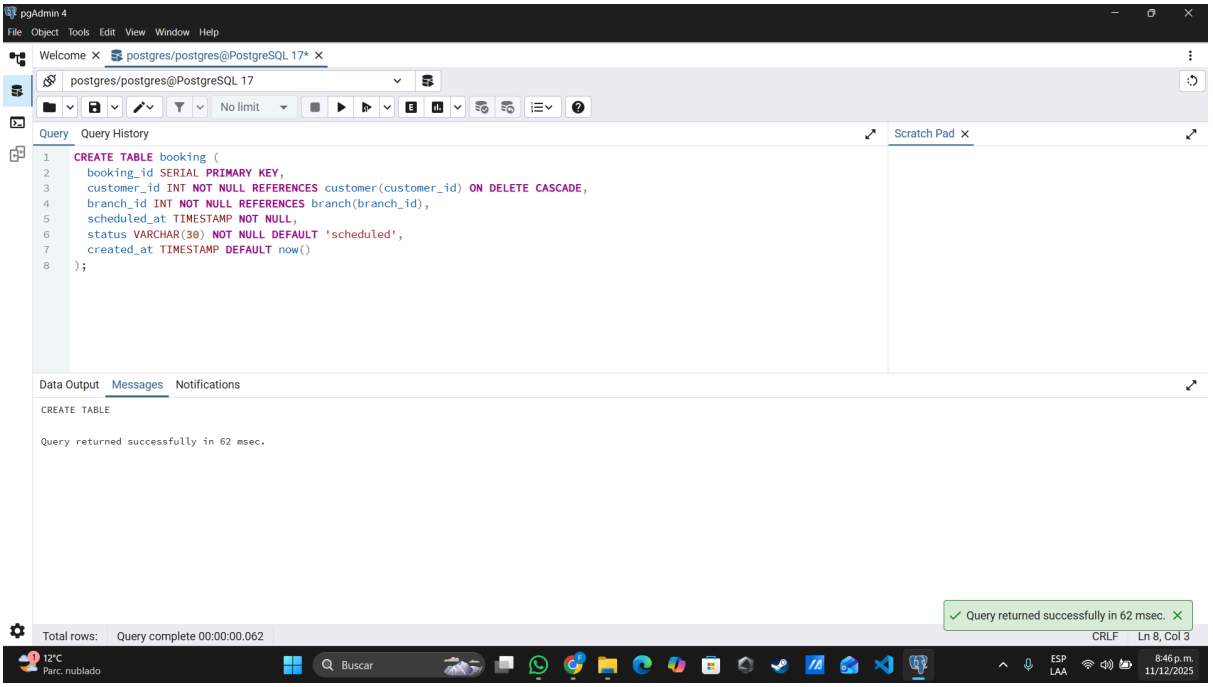
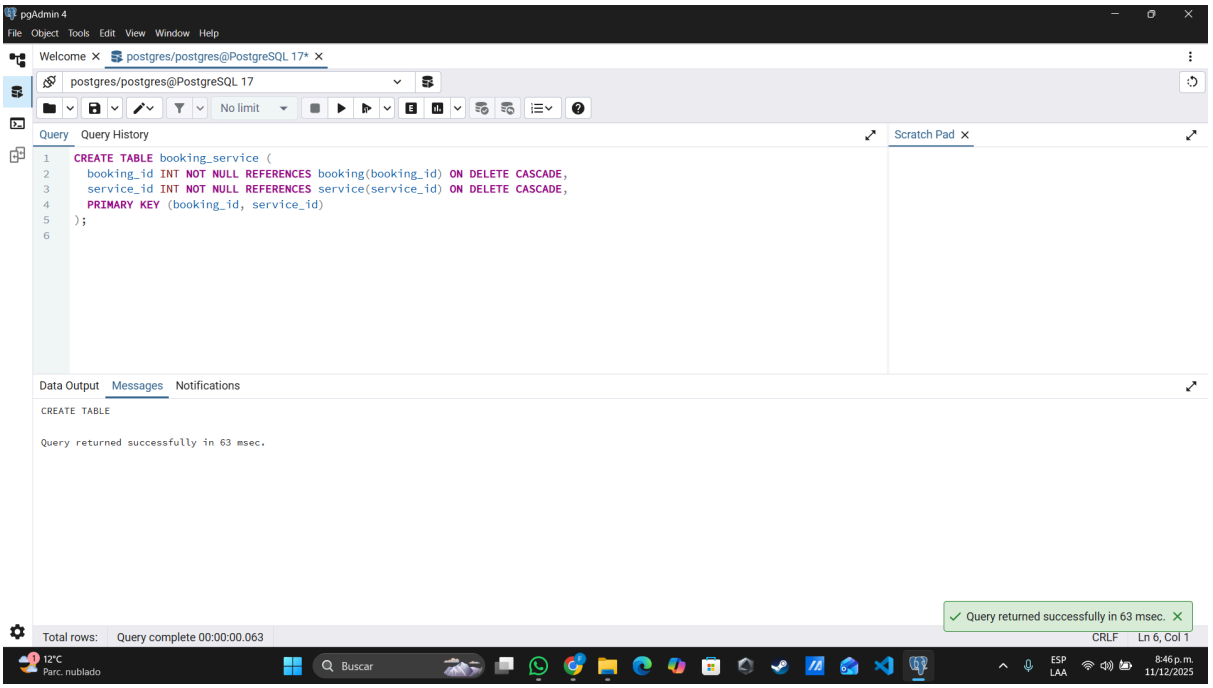
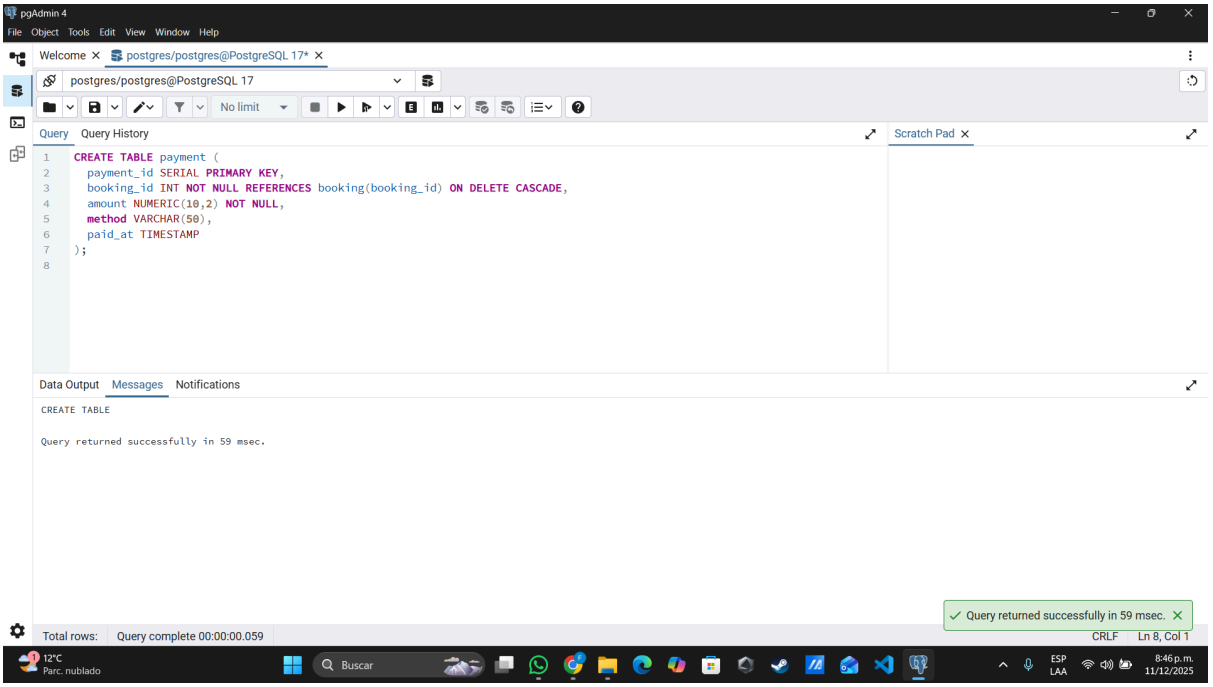
/sql/create_tables.sql

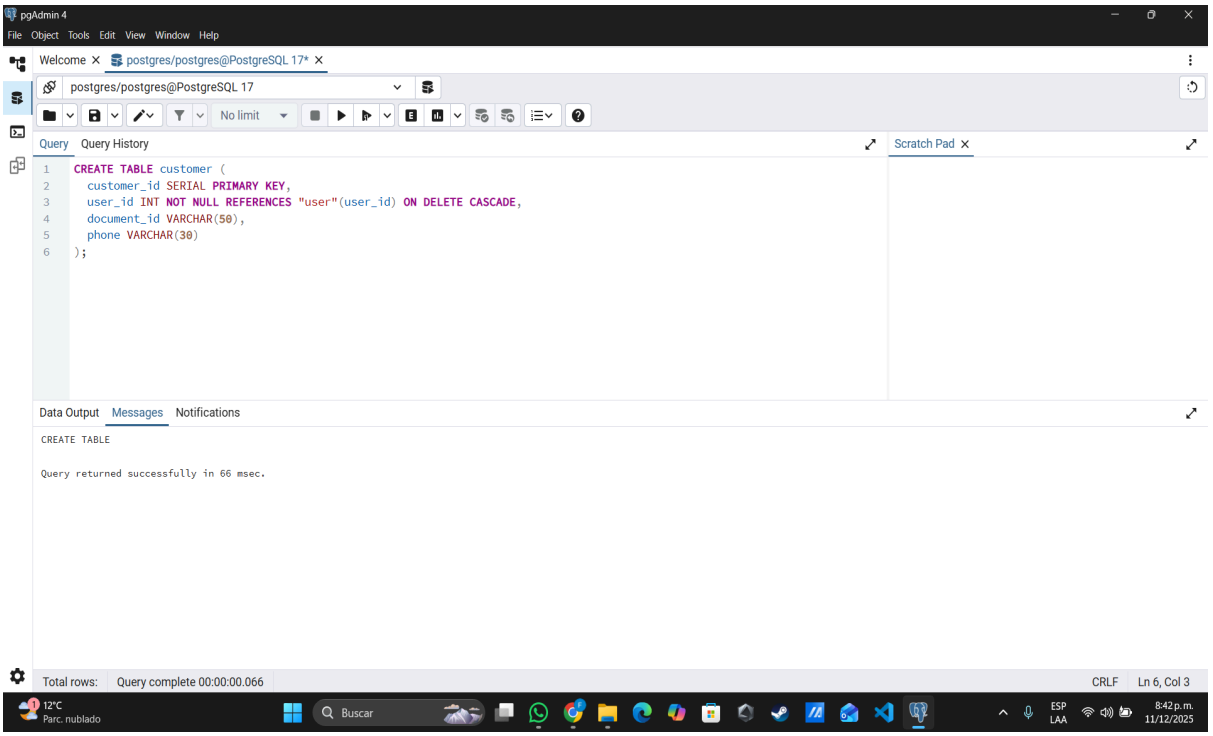


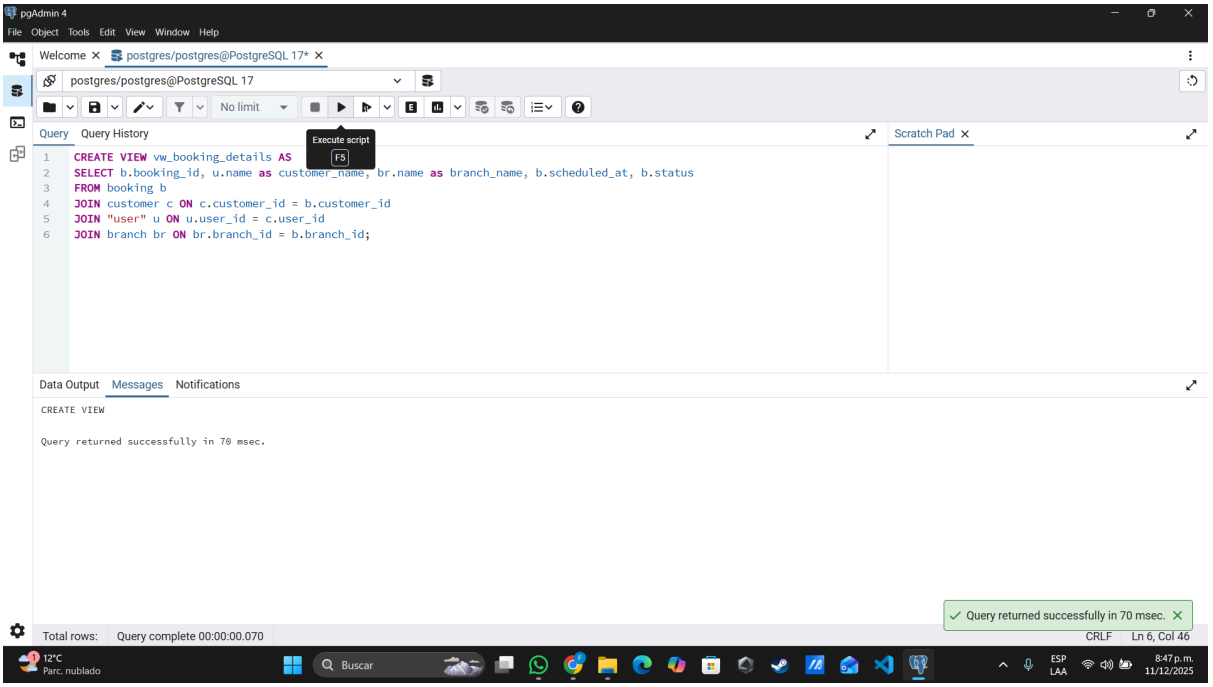


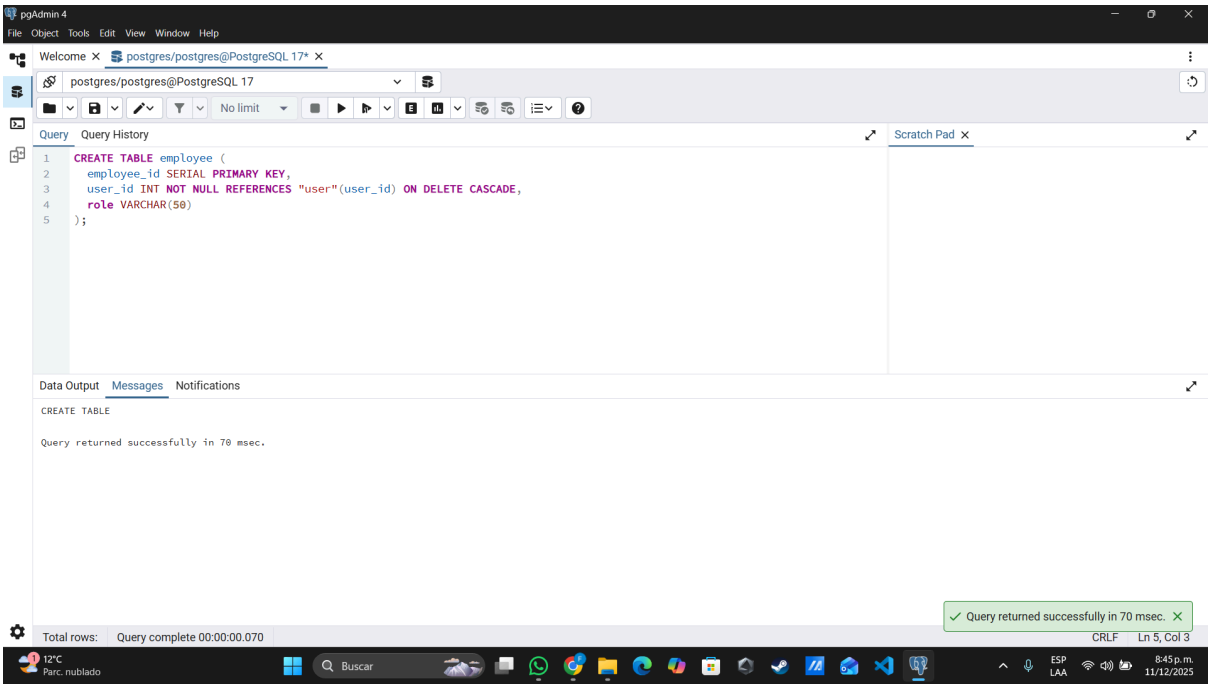

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
CREATE TABLE booking (
booking_id SERIAL PRIMARY KEY,
customer_id INT NOT NULL REFERENCES customer(customer_id) ON DELETE CASCADE,
branch_id INT NOT NULL REFERENCES branch(branch_id),
scheduled_at TIMESTAMP NOT NULL,
status VARCHAR(30) NOT NULL DEFAULT 'scheduled',
created_at TIMESTAMP DEFAULT now()
);
Data Output
Messages
Notifications
CREATE TABLE
Query returned successfully in 62 msec.
Query returned successfully in 62 msec.
Total rows:
Query complete 00:00:00.062
CRLF
Ln 8, Col 3
12°C
Parc. nublado
Buscar
ESP
LAA
8:46 p. m.
11/12/2025

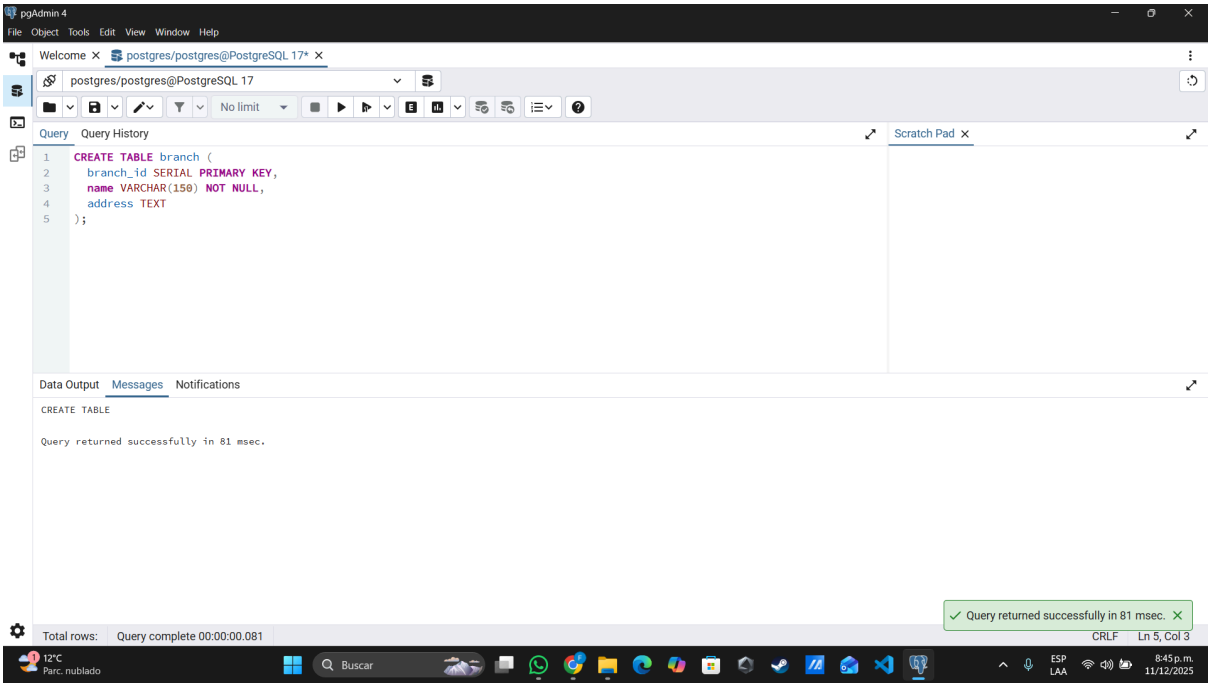

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
CREATE TABLE booking_service (
booking_id INT NOT NULL REFERENCES booking(booking_id) ON DELETE CASCADE,
service_id INT NOT NULL REFERENCES service(service_id) ON DELETE CASCADE,
PRIMARY KEY (booking_id, service_id)
);
Data Output
Messages
Notifications
CREATE TABLE
Query returned successfully in 63 msec.
Query returned successfully in 63 msec.
Total rows:
Query complete 00:00:00.063
CRLF
Ln 6, Col 1
12°C
Parc. nublado
Buscar
ESP
LAA
8:46 p. m.
11/12/2025

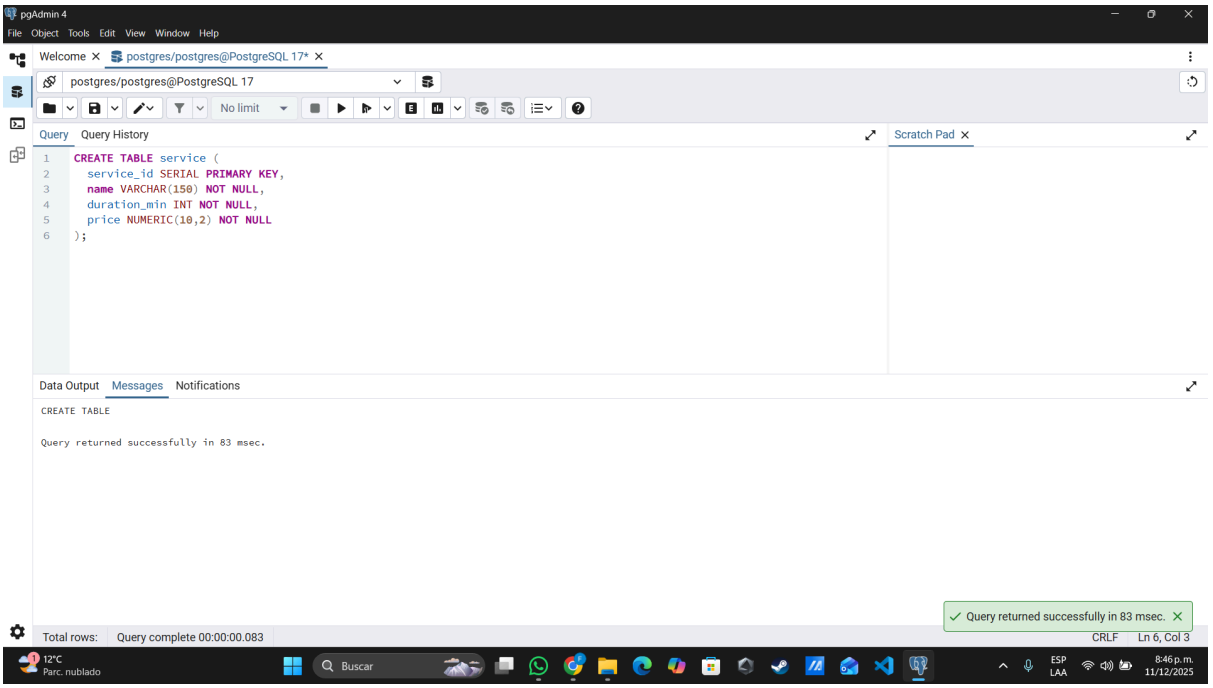

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
CREATE TABLE payment (
payment_id SERIAL PRIMARY KEY,
booking_id INT NOT NULL REFERENCES booking(booking_id) ON DELETE CASCADE,
amount NUMERIC(10,2) NOT NULL,
method VARCHAR(50),
paid_at TIMESTAMP
);
Data Output
Messages
Notifications
CREATE TABLE
Query returned successfully in 59 msec.
Query returned successfully in 59 msec.
Total rows:
Query complete 00:00:00.059
CRLF
Ln 8, Col 1
12°C
Parc. nublado
Buscar
ESP
LAA
8:46 p. m.
11/12/2025


pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
CREATE TABLE customer (
customer_id SERIAL PRIMARY KEY,
user_id INT NOT NULL REFERENCES "user"(user_id) ON DELETE CASCADE,
document_id VARCHAR(50),
phone VARCHAR(30)
);
Data Output
Messages
Notifications
CREATE TABLE
Query returned successfully in 66 msec.
Total rows:
Query complete 00:00:00.066
CRLF
Ln 6, Col 3
12°C
Parc. nublado
Buscar
ESP
LAA
8:42 p. m.
11/12/2025

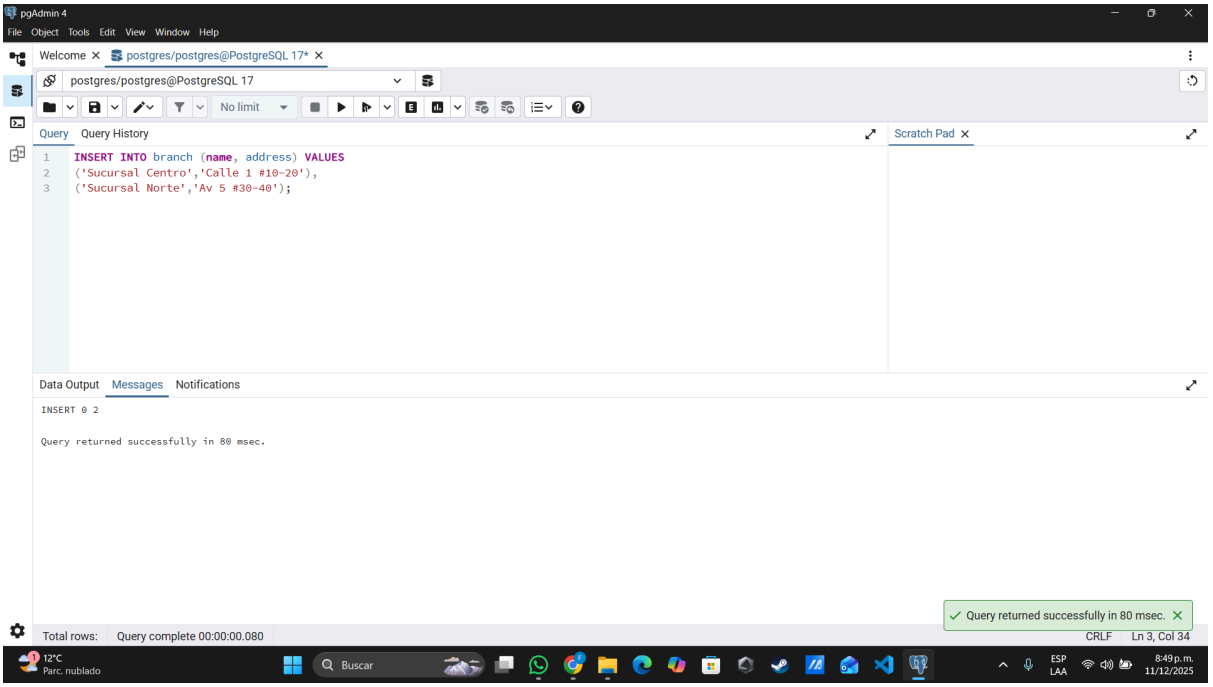

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Execute script
F5
Query
Query History
Scratch Pad
1 CREATE VIEW vw_booking_details AS
2 SELECT b.booking_id, u.name as customer_name, br.name as branch_name, b.scheduled_at, b.status
3 FROM booking b
4 JOIN customer c ON c.customer_id = b.customer_id
5 JOIN "user" u ON u.user_id = c.user_id
6 JOIN branch br ON br.branch_id = b.branch_id;
Data Output
Messages
Notifications
CREATE VIEW
Query returned successfully in 70 msec.
Query returned successfully in 70 msec.
Total rows:
Query complete 00:00:00.070
CRLF
Ln 6, Col 46
12°C
Parc. nublado
Buscar
ESP
LAA
8:47 p. m.
11/12/2025

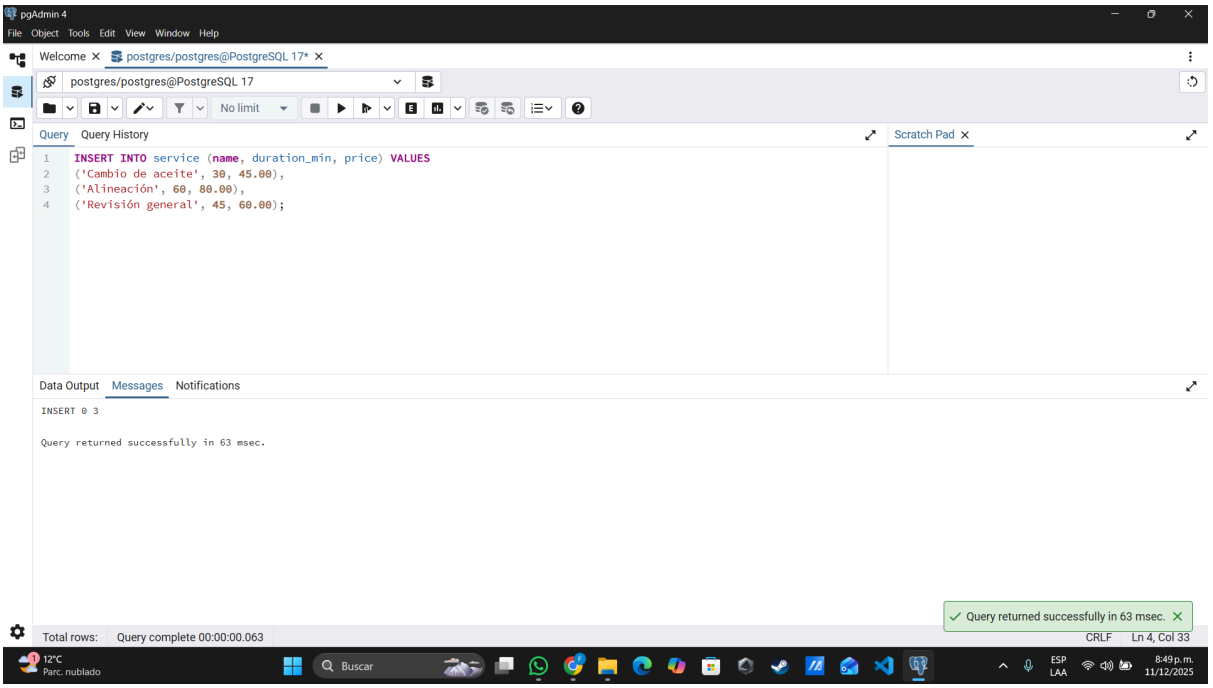

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
1 CREATE TABLE employee (
2 employee_id SERIAL PRIMARY KEY,
3 user_id INT NOT NULL REFERENCES "user"(user_id) ON DELETE CASCADE,
4 role VARCHAR(50)
5);
Data Output
Messages
Notifications
CREATE TABLE
Query returned successfully in 70 msec.
Query returned successfully in 70 msec.
Total rows:
Query complete 00:00:00.070
CRLF
Ln 5, Col 3
12°C
Parc. nublado
Buscar
ESP
LAA
8:45 p. m.
11/12/2025

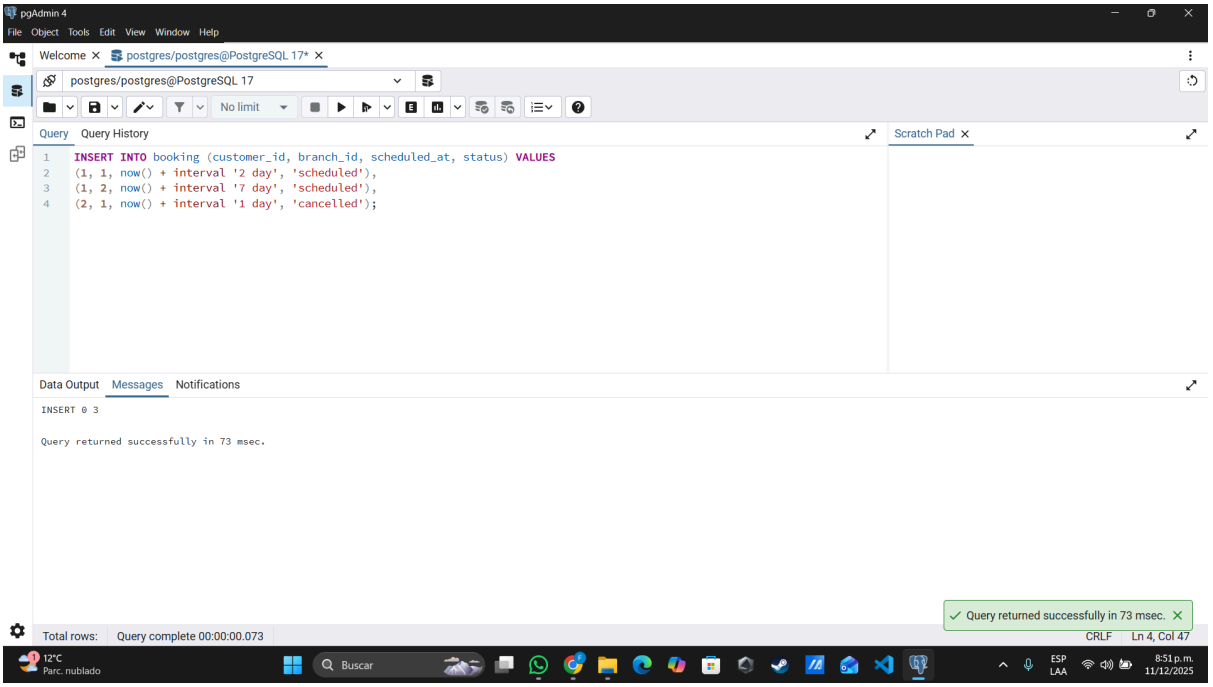


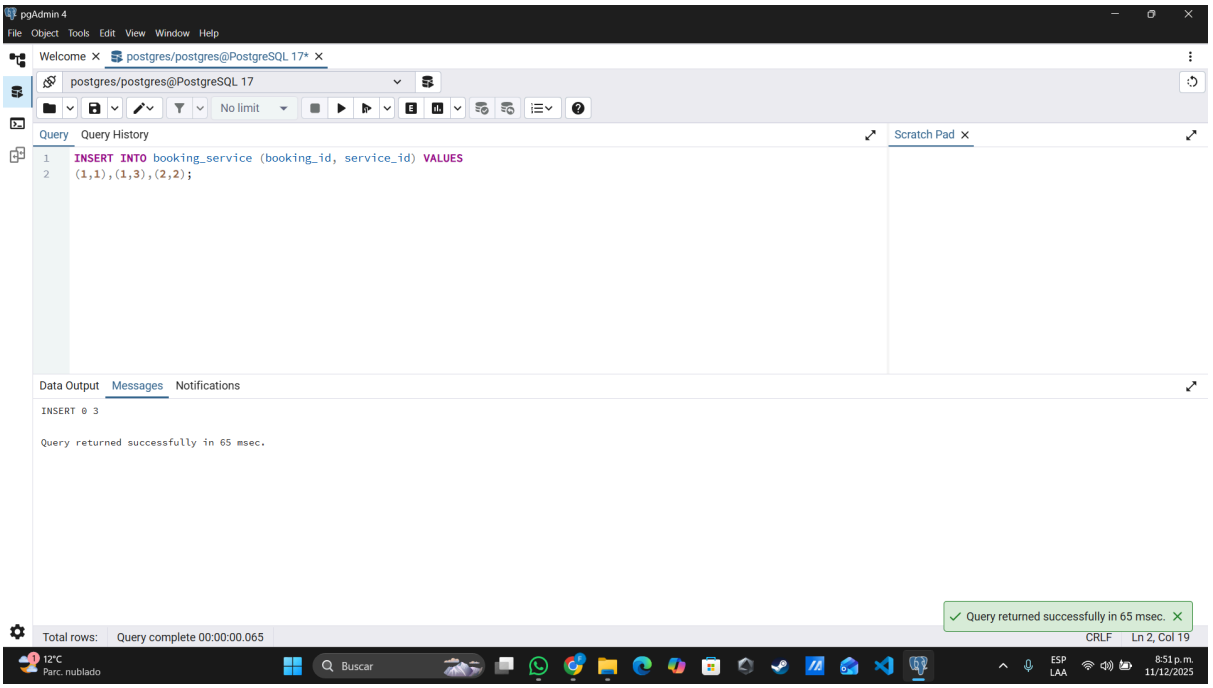


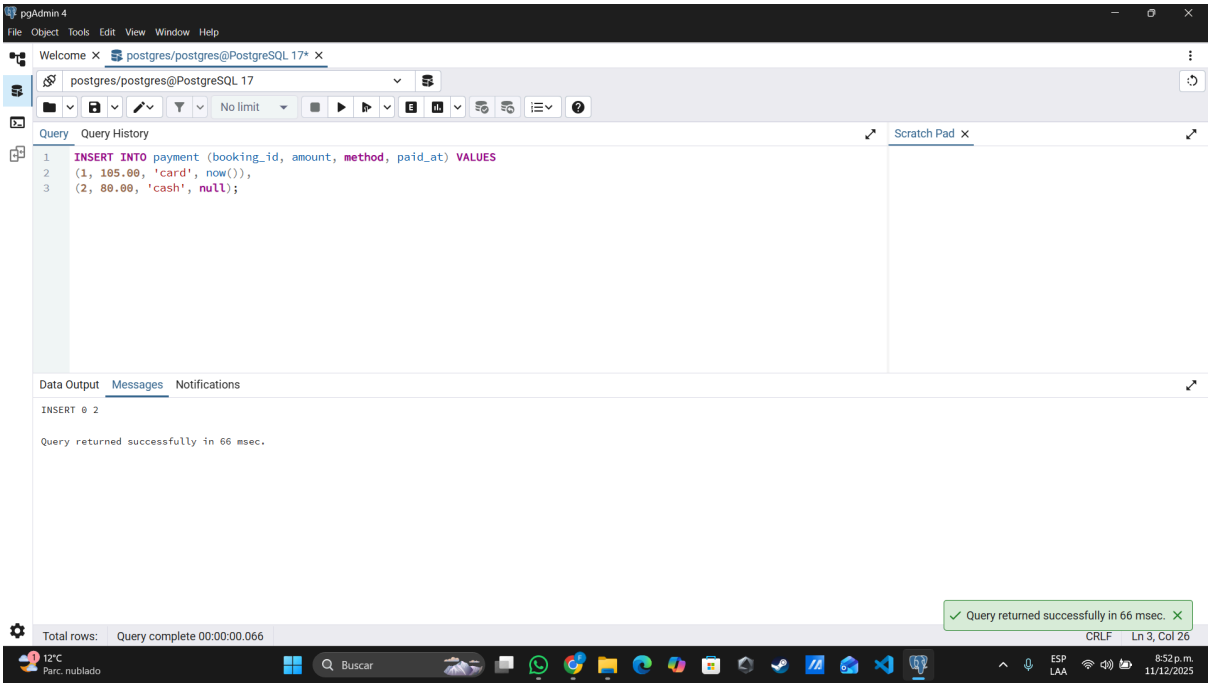
/sql/insert_data.sql

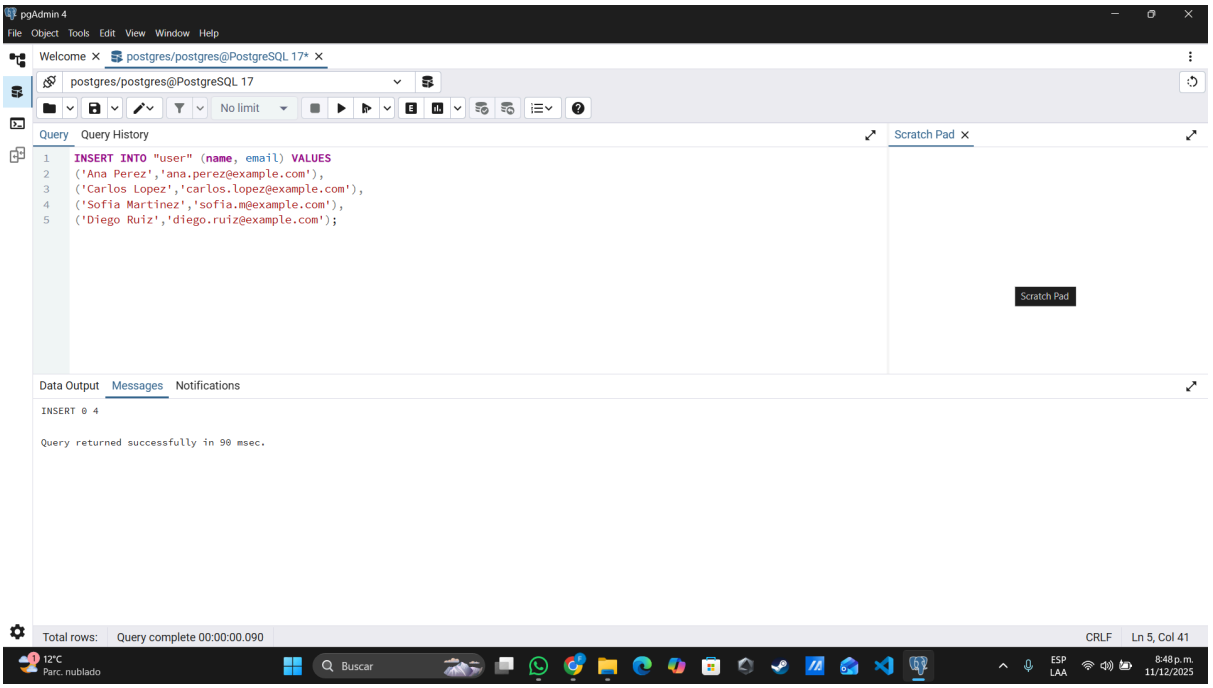

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
INSERT INTO branch (name, address) VALUES
('Sucursal Centro','Calle 1 #10-20'),
('Sucursal Norte','Av 5 #30-40');
Data Output
Messages
Notifications
INSERT 0 2
Query returned successfully in 80 msec.
Query returned successfully in 80 msec.
Total rows:
Query complete 00:00:00.080
CRLF
Ln 3, Col 34
12°C
Parc. nublado
Buscar
ESP
LAA
8:49 p. m.
11/12/2025

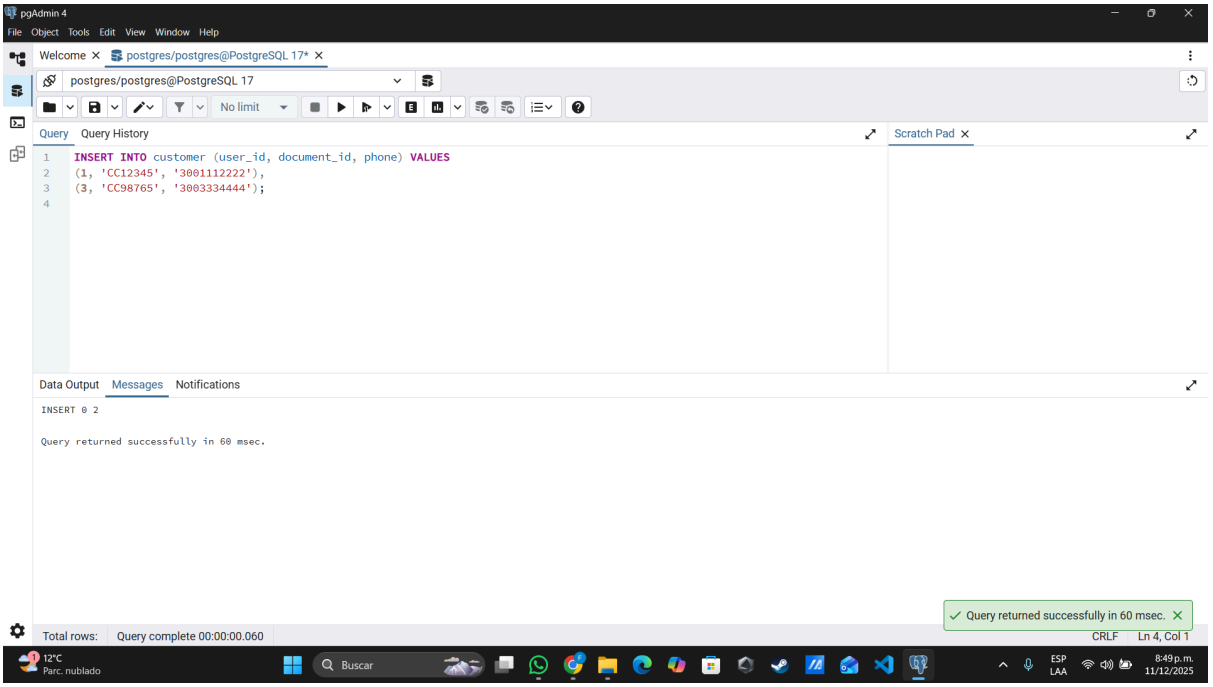

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
INSERT INTO service (name, duration_min, price) VALUES
('Cambio de aceite', 30, 45.00),
('Alineación', 60, 80.00),
('Revisión general', 45, 60.00);
Data Output
Messages
Notifications
INSERT 0 3
Query returned successfully in 63 msec.
Query returned successfully in 63 msec.
Total rows:
Query complete 00:00:00.063
CRLF
Ln 4, Col 33
12°C
Parc. nublado
Buscar
ESP
LAA
8:49 p. m.
11/12/2025

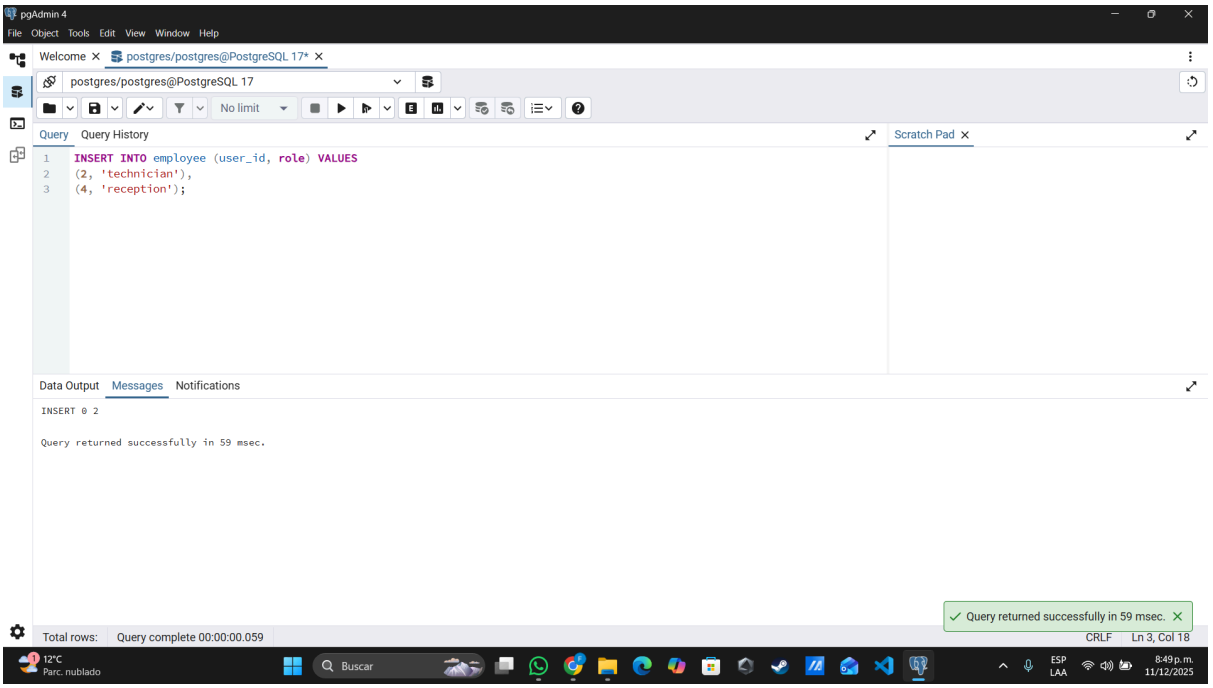

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
1 INSERT INTO booking (customer_id, branch_id, scheduled_at, status) VALUES
2 (1, 1, now() + interval '2 day', 'scheduled'),
3 (1, 2, now() + interval '7 day', 'scheduled'),
4 (2, 1, now() + interval '1 day', 'cancelled');
Data Output
Messages
Notifications
INSERT 0 3
Query returned successfully in 73 msec.
Query returned successfully in 73 msec.
Total rows:
Query complete 00:00:00.073
CRLF
Ln 4, Col 47
12°C
Parc. nublado
Buscar
ESP
LAA
8:51 p. m.
11/12/2025


pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
1 INSERT INTO booking_service (booking_id, service_id) VALUES
2 (1,1),(1,3),(2,2);
Data Output
Messages
Notifications
INSERT 0 3
Query returned successfully in 65 msec.
Query returned successfully in 65 msec.
Total rows:
Query complete 00:00:00.065
CRLF
Ln 2, Col 19
12°C
Parc. nublado
Buscar
ESP
LAA
8:51 p. m.
11/12/2025

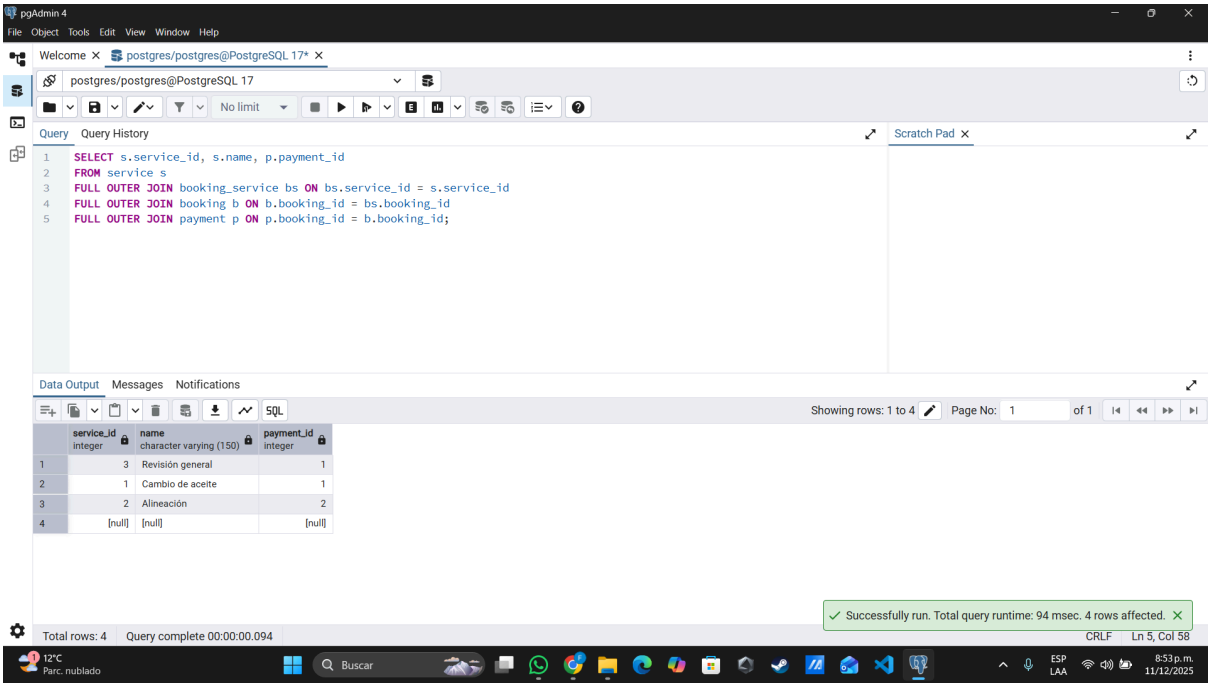

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
INSERT INTO payment (booking_id, amount, method, paid_at) VALUES
(1, 105.00, 'card', now()),
(2, 80.00, 'cash', null);
Data Output
Messages
Notifications
INSERT 0 2
Query returned successfully in 66 msec.
Query returned successfully in 66 msec.
Total rows:
Query complete 00:00:00.066
CRLF
Ln 3, Col 26
12°C
Parc. nublado
Buscar
ESP
LAA
8:52 p. m.
11/12/2025

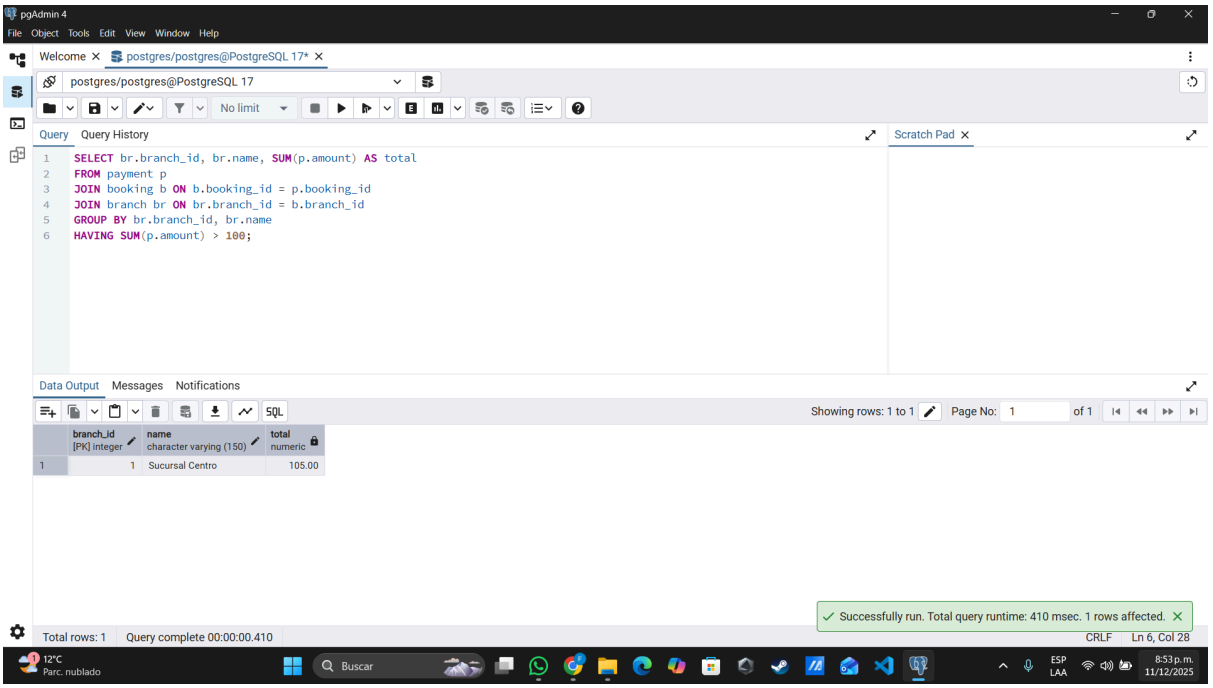

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
INSERT INTO "user" (name, email) VALUES
('Ana Perez','ana.perez@example.com'),
('Carlos Lopez','carlos.lopez@example.com'),
('Sofia Martinez','sofia.m@example.com'),
('Diego Ruiz','diego.ruiz@example.com');
Scratch Pad
Data Output
Messages
Notifications
INSERT 0 4
Query returned successfully in 90 msec.
Total rows:
Query complete 00:00:00.090
CRLF
Ln 5, Col 41
12°C
Parc. nublado
Buscar
ESP
LAA
8:48 p. m.
11/12/2025

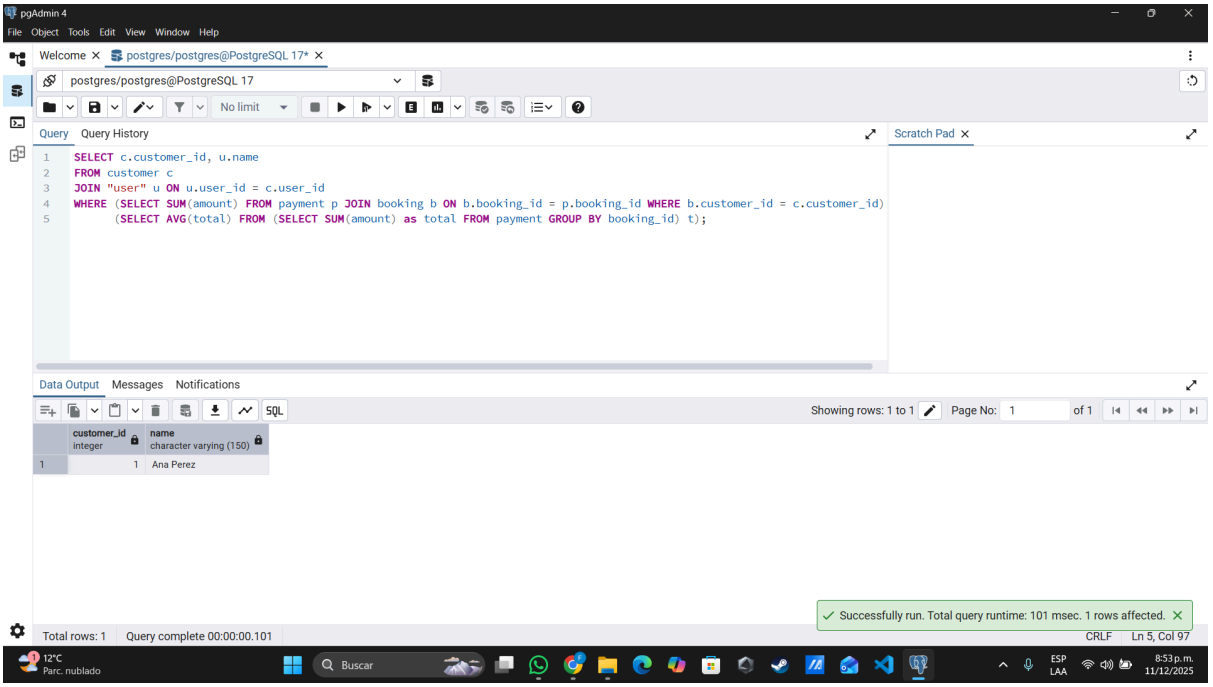


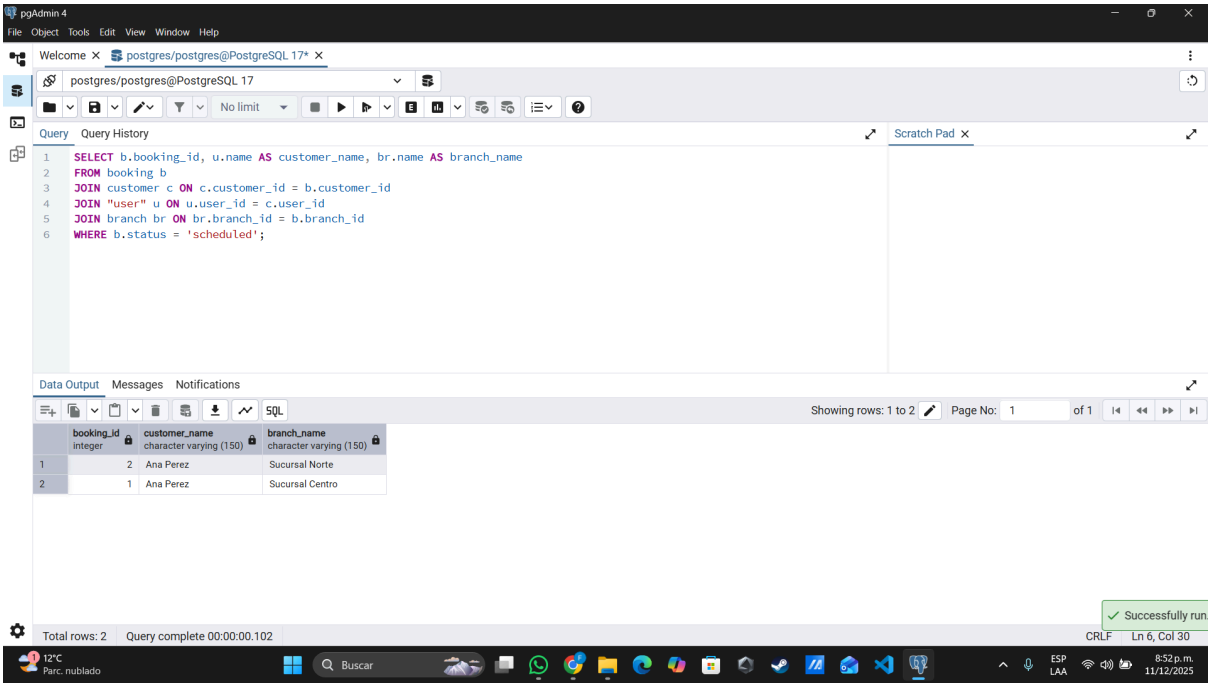


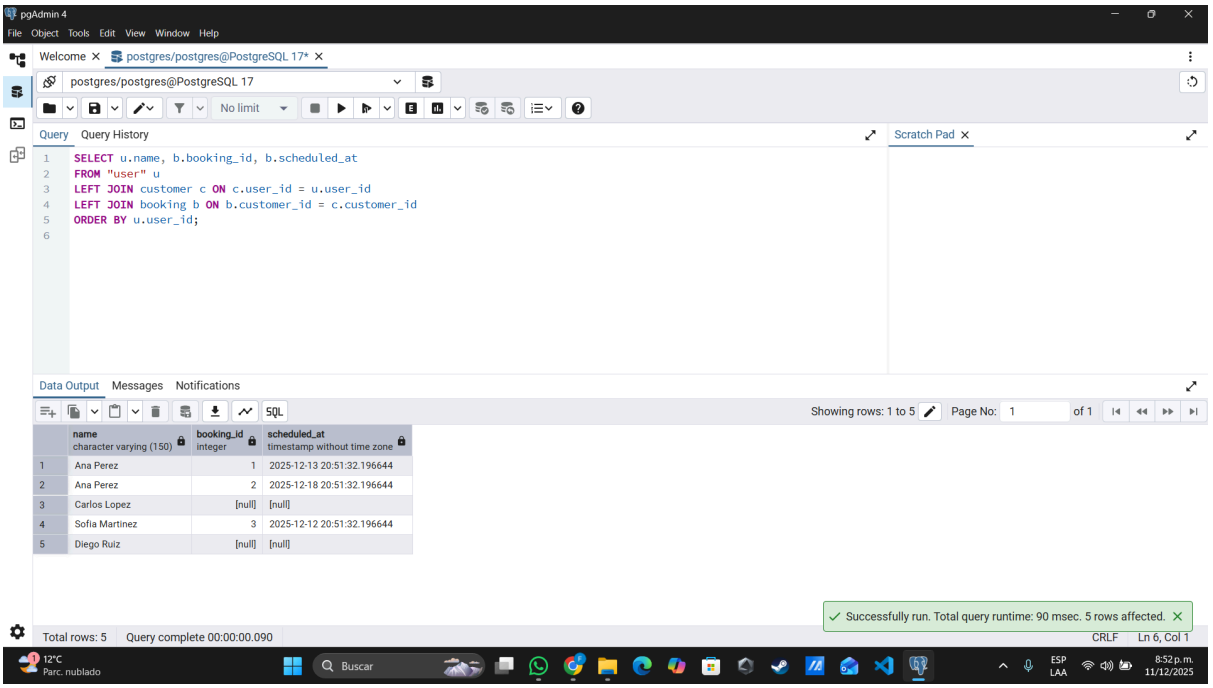
/sql/queries_avanzadas.sql

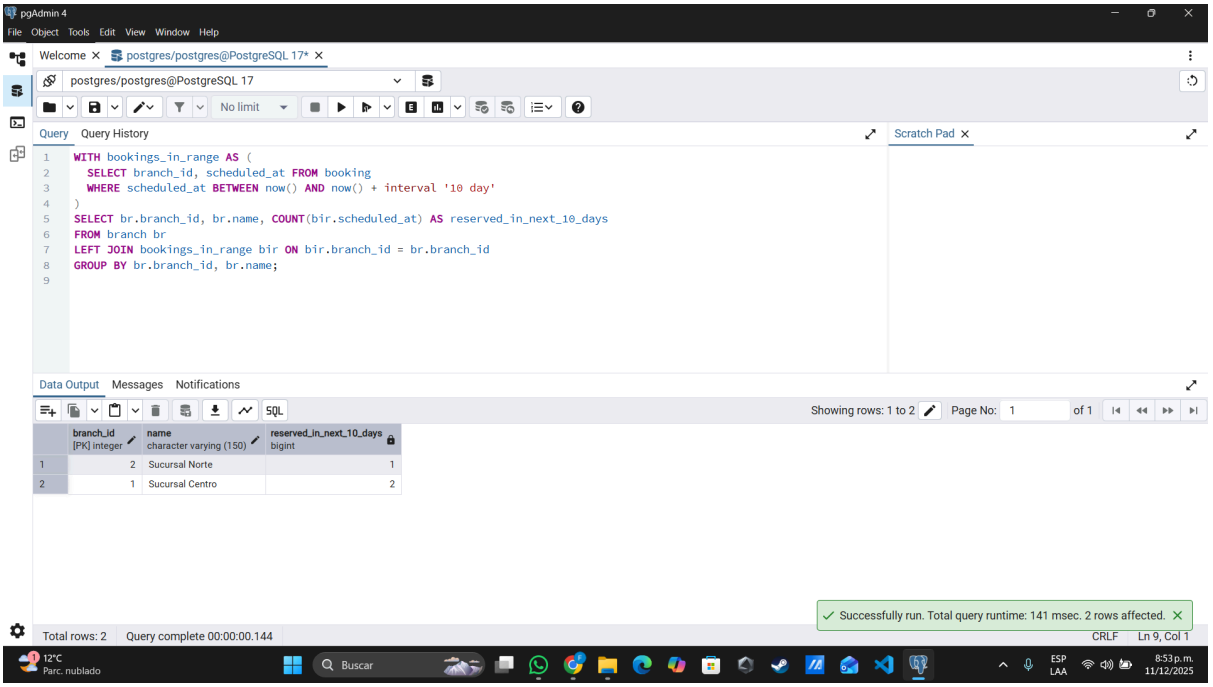

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
SELECT s.service_id, s.name, p.payment_id
FROM service s
FULL OUTER JOIN booking_service bs ON bs.service_id = s.service_id
FULL OUTER JOIN booking b ON b.booking_id = bs.booking_id
FULL OUTER JOIN payment p ON p.booking_id = b.booking_id;
Data Output
Messages
Notifications
SQL
Showing rows: 1 to 4
Page No: 1
of 1
service_id integer
name character varying (150)
payment_id integer
1 3 Revisión general 1
2 1 Cambio de aceite 1
3 2 Alineación 2
4 [null] [null] [null]
Successfully run. Total query runtime: 94 msec. 4 rows affected.
Total rows: 4
Query complete 00:00:00.094
CRLF
Ln 5, Col 58
12°C
Parc. nublado
Buscar
ESP
LAA
8:53 p. m.
11/12/2025

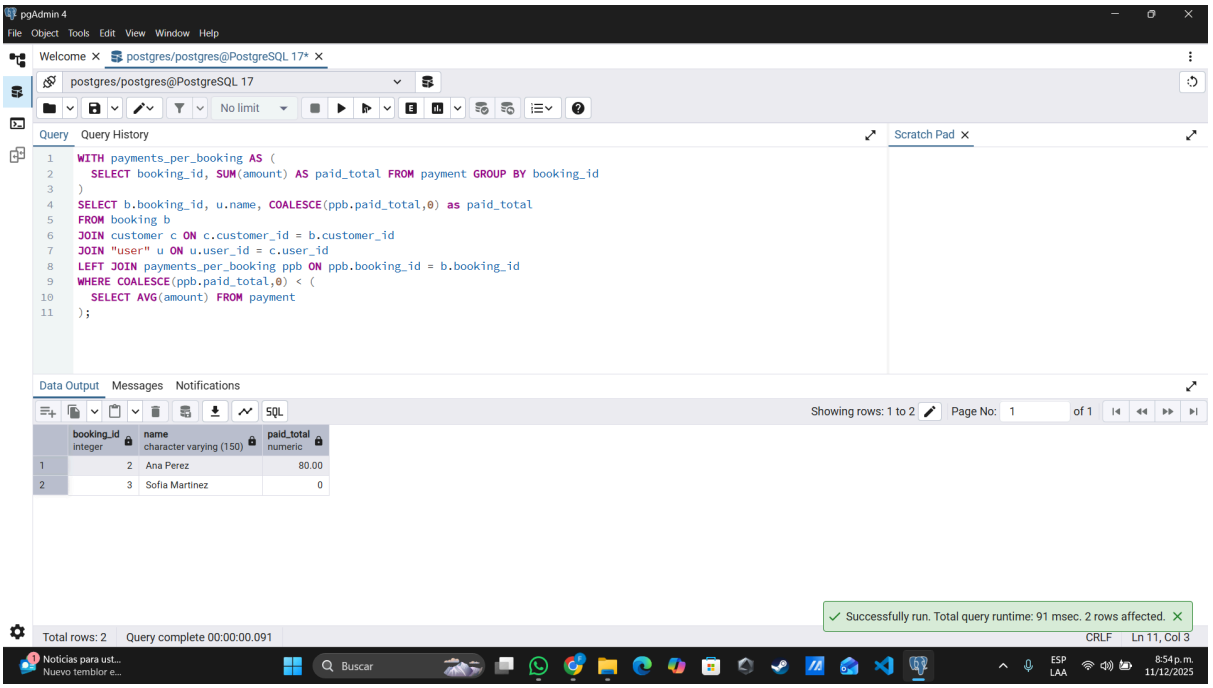

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
SELECT br.branch_id, br.name, SUM(p.amount) AS total
FROM payment p
JOIN booking b ON b.booking_id = p.booking_id
JOIN branch br ON br.branch_id = b.branch_id
GROUP BY br.branch_id, br.name
HAVING SUM(p.amount) > 100;
Data Output
Messages
Notifications
SQL
Showing rows: 1 to 1
Page No: 1
of 1
branch_id [PK] integer
name character varying (150)
total numeric
1 1 Sucursal Centro 105.00
Successfully run. Total query runtime: 410 msec. 1 rows affected.
Total rows: 1
Query complete 00:00:00.410
CRLF
Ln 6, Col 28
12°C
Parc. nublado
Buscar
ESP
LAA
8:53 p. m.
11/12/2025


pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
SELECT c.customer_id, u.name
FROM customer c
JOIN "user" u ON u.user_id = c.user_id
WHERE (SELECT SUM(amount) FROM payment p JOIN booking b ON b.booking_id = p.booking_id WHERE b.customer_id = c.customer_id)
(SELECT AVG(total) FROM (SELECT SUM(amount) as total FROM payment GROUP BY booking_id) t);
Data Output
Messages
Notifications
SQL
Showing rows: 1 to 1
Page No: 1
of 1
customer_id integer
name character varying (150)
1
Ana Perez
Successfully run. Total query runtime: 101 msec. 1 rows affected.
Total rows: 1
Query complete 00:00:00.101
CRLF
Ln 5, Col 97
12°C
Parc. nublado
Buscar
ESP
LAA
8:53 p. m.
11/12/2025

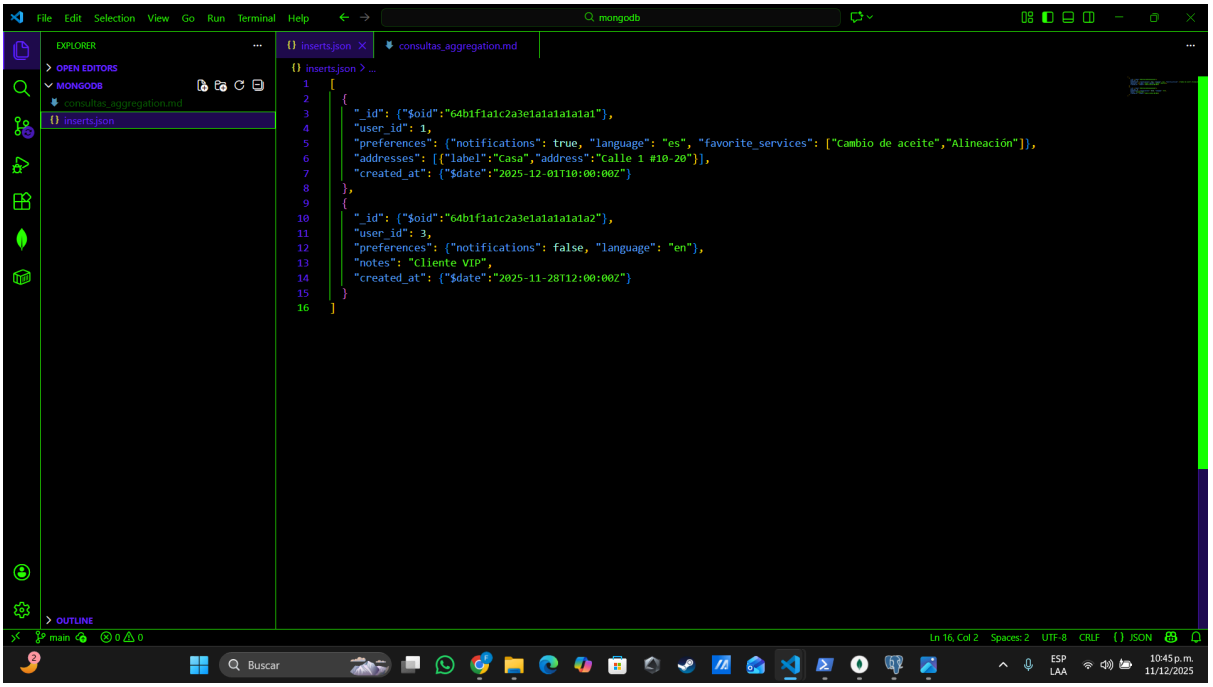

pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
SELECT b.booking_id, u.name AS customer_name, br.name AS branch_name
FROM booking b
JOIN customer c ON c.customer_id = b.customer_id
JOIN "user" u ON u.user_id = c.user_id
JOIN branch br ON br.branch_id = b.branch_id
WHERE b.status = 'scheduled';
Data Output
Messages
Notifications
SQL
Showing rows: 1 to 2
Page No: 1
of 1
booking_id integer
customer_name character varying (150)
branch_name character varying (150)
1 2 Ana Perez Sucursal Norte
2 1 Ana Perez Sucursal Centro
Successfully run.
Total rows: 2
Query complete 00:00:00.102
CRLF
Ln 6, Col 30
12°C
Parc. nublado
Buscar
ESP
LAA
8:52 p. m.
11/12/2025


pgAdmin 4
File Object Tools Edit View Window Help
Welcome
postgres/postgres@PostgreSQL 17*
postgres/postgres@PostgreSQL 17
No limit
Query
Query History
Scratch Pad
SELECT u.name, b.booking_id, b.scheduled_at
FROM "user" u
LEFT JOIN customer c ON c.user_id = u.user_id
LEFT JOIN booking b ON b.customer_id = c.customer_id
ORDER BY u.user_id;
Data Output
Messages
Notifications
SQL
Showing rows: 1 to 5
Page No: 1
of 1
name character varying (150)
booking_id integer
scheduled_at timestamp without time zone
1 Ana Perez 1 2025-12-13 20:51:32.196644
2 Ana Perez 2 2025-12-18 20:51:32.196644
3 Carlos Lopez [null] [null]
4 Sofia Martinez 3 2025-12-12 20:51:32.196644
5 Diego Ruiz [null] [null]
Successfully run. Total query runtime: 90 msec. 5 rows affected.
Total rows: 5
Query complete 00:00:00.090
CRLF
Ln 6, Col 1
12°C
Parc. nublado
Buscar
ESP
LAA
8:52 p. m.
11/12/2025

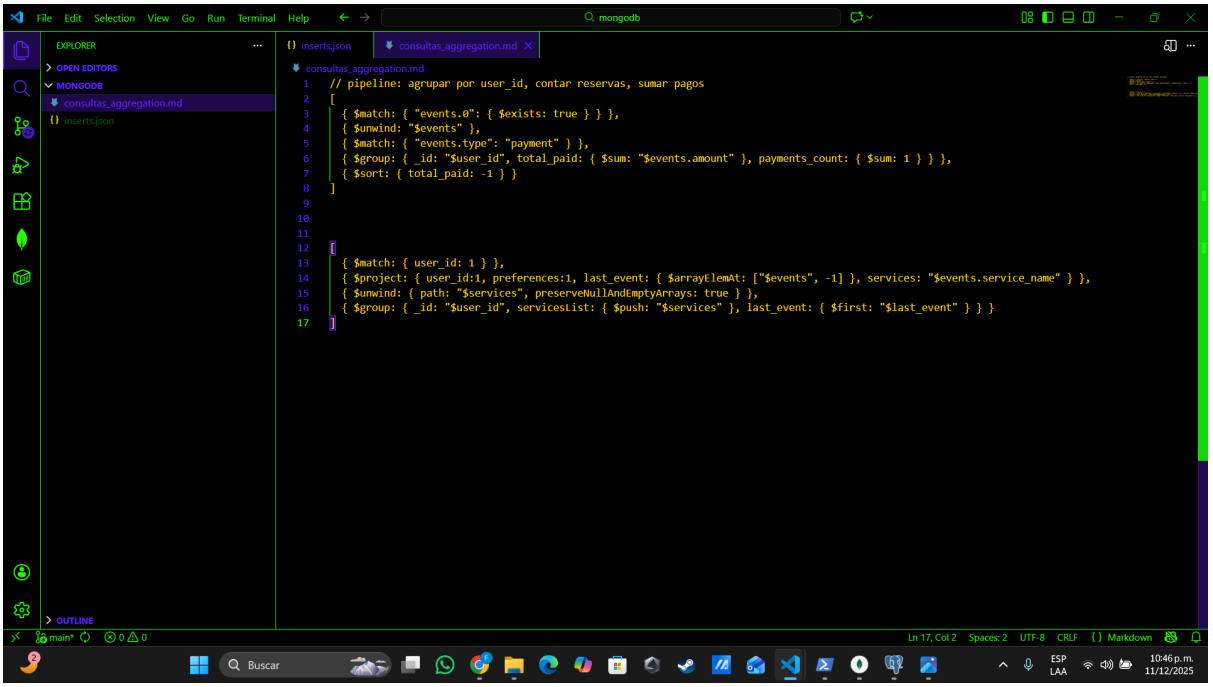




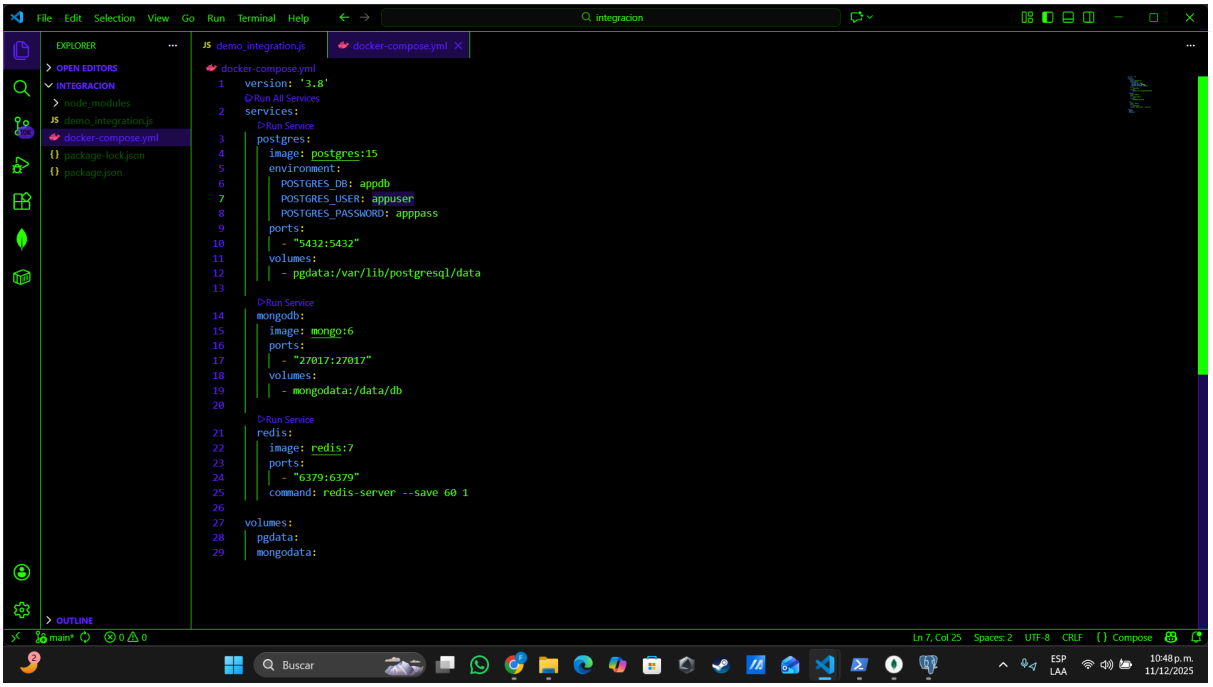
/mongodb/inserts.json



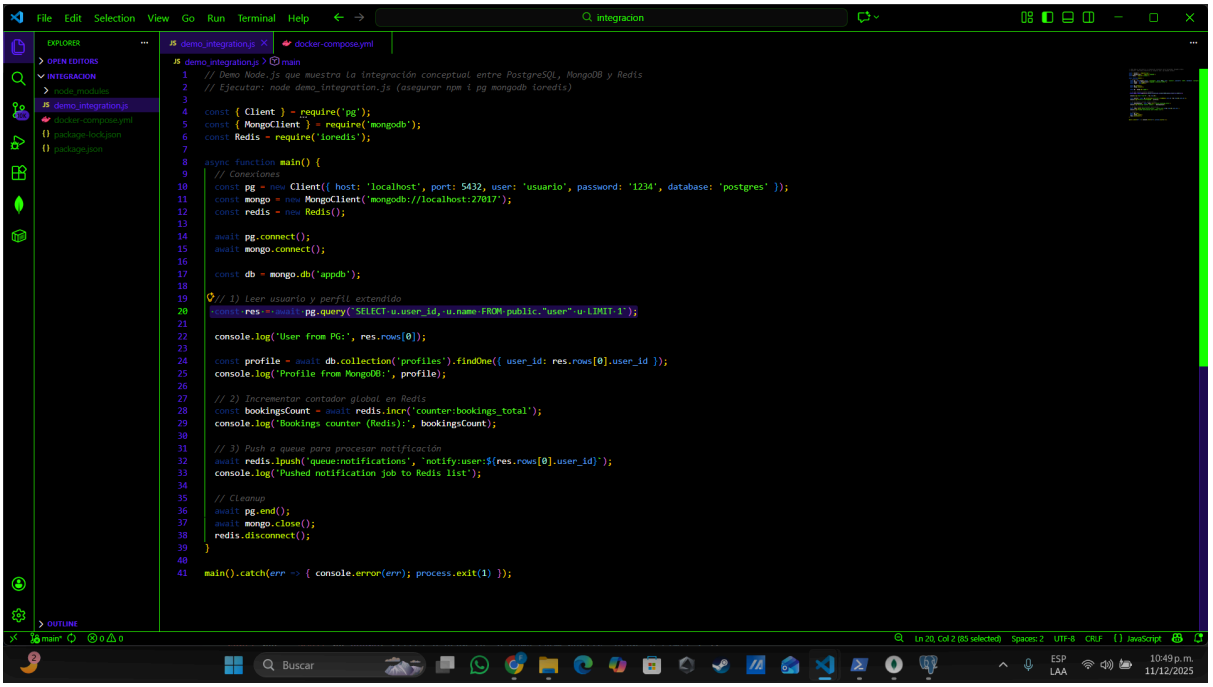
/mongodb/consultas_aggregation.md



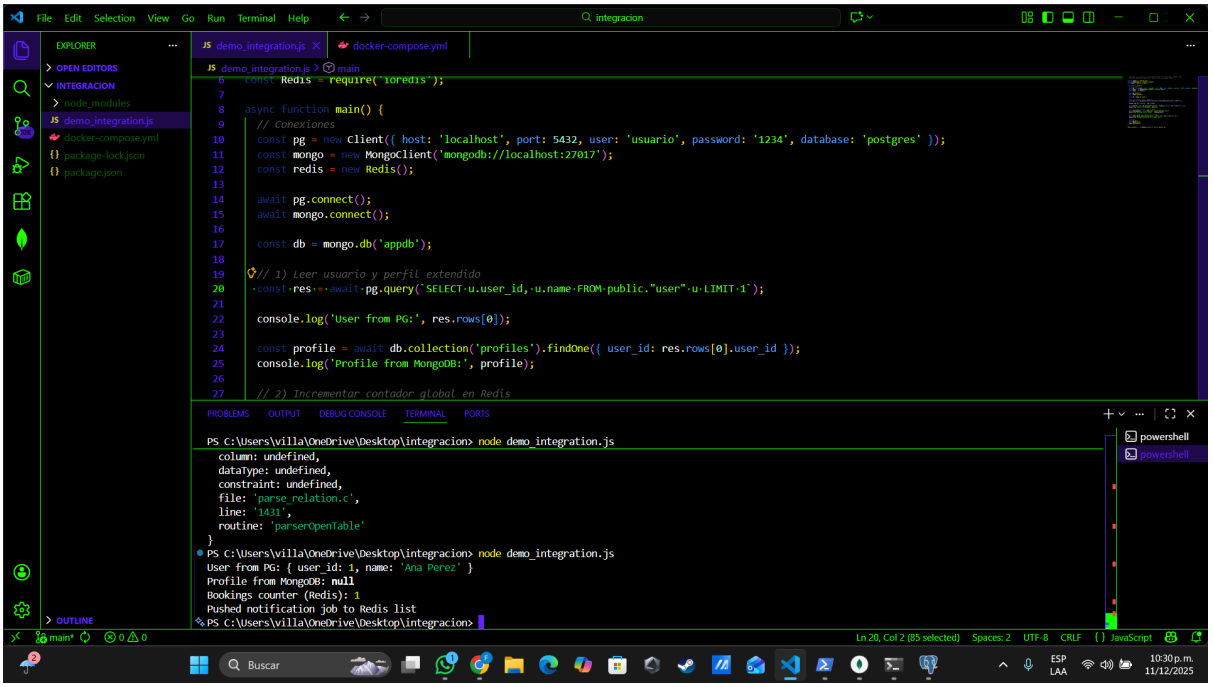
/integracion/docker-compose.yml



/integracion/demo_integration.js



CAPTURA FINAL FUNCIONAMIENTO AL 100%


File Edit Selection View Go Run Terminal Help
integracion
EXPLORER
OPEN EDITORS
INTEGRACION
node_modules
demo_integration.js
docker-compose.yml
package-lock.json
package.json
OUTLINE
demo_integration.js
docker-compose.yml
demo_integration.js > main
const Redis = require("ioredis");
async function main() {
// Conexiones
const pg = new Client({ host: 'localhost', port: 5432, user: 'usuario', password: '1234', database: 'postgres' });
const mongo = new MongoClient('mongodb://localhost:27017');
const redis = new Redis();
await pg.connect();
await mongo.connect();
const db = mongo.db('appdb');
// 1) Leer usuario y perfil extendido
const res = await pg.query(`SELECT u.user_id, u.name FROM public."user" u LIMIT 1`);
console.log('User from PG:', res.rows[0]);
const profile = await db.collection('profiles').findOne({ user_id: res.rows[0].user_id });
console.log('Profile from MongoDB:', profile);
// 2) Incrementar contador global en Redis
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\villa\OneDrive\Desktop\integracion> node demo_integration.js
column: undefined,
dataType: undefined,
constraint: undefined,
file: 'parse_relation.c',
line: '1431',
routine: 'parserOpenTable'
}
PS C:\Users\villa\OneDrive\Desktop\integracion> node demo_integration.js
User from PG: { user_id: 1, name: 'Ana Perez' }
Profile from MongoDB: null
Bookings counter (Redis): 1
Pushed notification job to Redis list
PS C:\Users\villa\OneDrive\Desktop\integracion>
powershell
powershell
main*
Ln 20, Col 2 (85 selected)
Spaces: 2
UTF-8
CRLF
JavaScript
Buscar
ESP
LAA
10:30 p. m.
11/12/2025