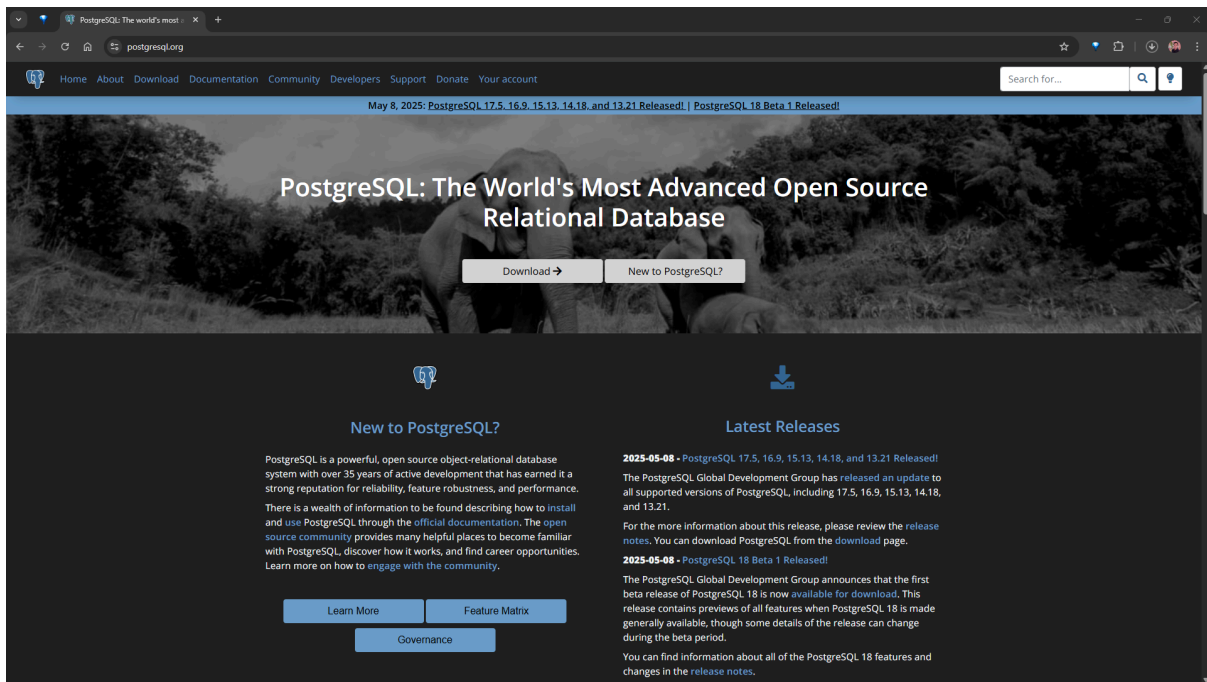
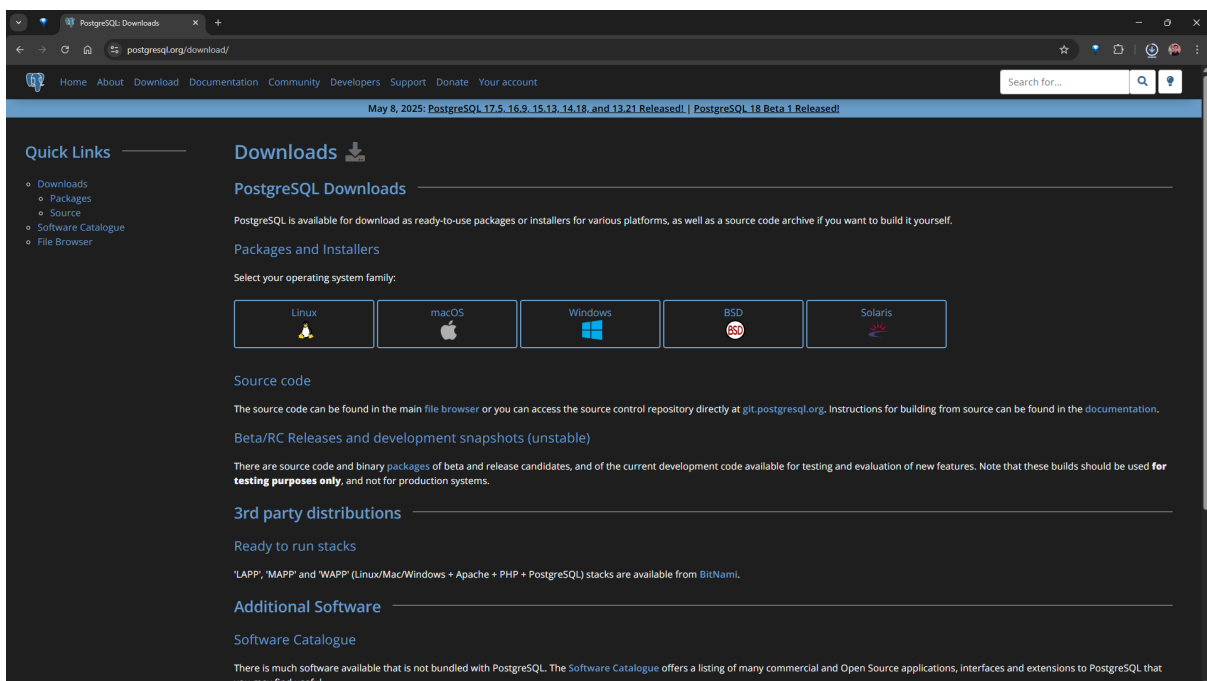


# POSTGRES SETUP + BASICS

<https://www.postgresql.org/>



<https://www.postgresql.org/download/>



Windows : <https://www.postgresql.org/download/windows/>

Mac : <https://www.postgresql.org/download/macosx/>

PostgreSQL Windows installers

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May 8, 2025: PostgreSQL 17.5, 16.9, 15.13, 14.18, and 13.21 Released! | PostgreSQL 18 Beta 1 Released!

## Quick Links

- Downloads
  - Packages
  - Source
- Software Catalogue
- File Browser

## Windows installers

### Interactive installer by EDB

Download the installer certified by EDB for all supported Postgres versions.

**Note!** This installer is hosted by EDB and not on the PostgreSQL community servers. If you have issues with the website it's hosted on, please contact [webmaster@enterprisedb.com](mailto:webmaster@enterprisedb.com).

This installer includes:

- The PostgreSQL server
- pgAdmin, a graphical tool for managing and developing your databases
- StackBuilder, a package manager for downloading and installing additional PostgreSQL tools and drivers. Stackbuilder includes management, integration, migration, replication, geospatial, connectors and other tools.

This installer can run in graphical or silent install modes.

The Windows installer is designed to be a straightforward, fast way to get up and running with Postgres. In the unlikely event that you have issues with the installer, please report them on the [Installer Github page](#). Issues with the installed packages should be reported to the appropriate project directly.

Advanced users can also download a [zip archive](#) of the binaries, without the installer. This download is intended for users who wish to include Postgres as part of another application installer.

### Platform support

The installers are tested by EDB on the following platforms. They can generally be expected to run on other comparable versions, for example, desktop releases of Windows:

Postgres Version	64 Bit Windows Platforms
17	2022, 2019
16	2022, 2019
15	2019, 2016
14	2019, 2016
13	2019, 2016
12	2019, 2016, 2012 R2

EDB Open-Source, Enterprise

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## Download PostgreSQL

Open source PostgreSQL packages and installers from EDB

PostgreSQL Version	Linux x86-64	Linux x86-32	Mac OS X	Windows x86-64	Windows x86-32
17.5	<a href="https://www.postgresql.org/">postgresql.org</a>	<a href="https://www.postgresql.org/">postgresql.org</a>			Not supported
16.9	<a href="https://www.postgresql.org/">postgresql.org</a>	<a href="https://www.postgresql.org/">postgresql.org</a>			Not supported
15.13	<a href="https://www.postgresql.org/">postgresql.org</a>	<a href="https://www.postgresql.org/">postgresql.org</a>			Not supported
14.18	<a href="https://www.postgresql.org/">postgresql.org</a>	<a href="https://www.postgresql.org/">postgresql.org</a>			Not supported
13.21	<a href="https://www.postgresql.org/">postgresql.org</a>	<a href="https://www.postgresql.org/">postgresql.org</a>			Not supported

**Note:** EDB no longer provides Linux installers for PostgreSQL 11 and later versions, and users are encouraged to use the [platform-native packages](#). Version 10.x and below will be supported until their [end of life](#). For more information, please see this [blog post on Platform Native EDB Packages for Linux Users](#).

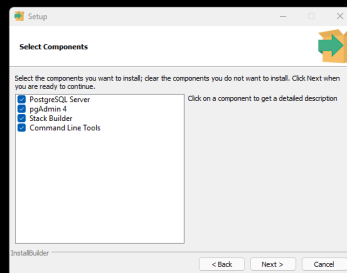
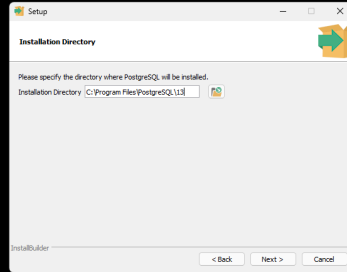
[PostgreSQL Installation Guide](#)

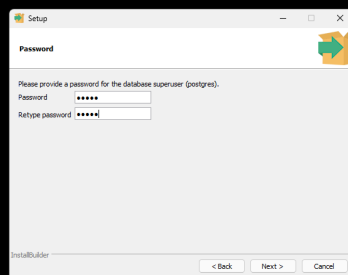
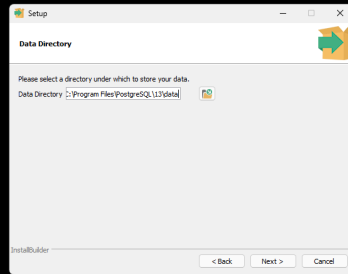
[EDB PostgreSQL Language Pack Guide](#)

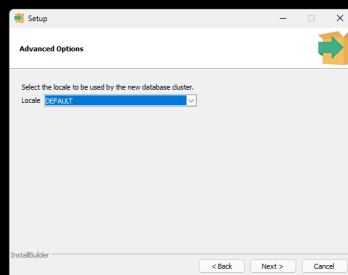
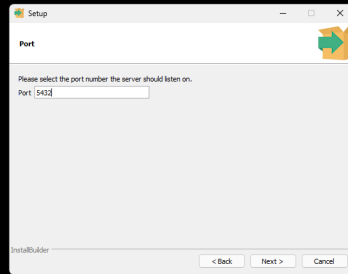
PostgreSQL is the world's most advanced open source database and the fourth most popular database. In development for more than 20 years, PostgreSQL is managed by a well-organized and highly principled and experienced open source community. It is an object-oriented database that is fully ACID compliant and highly extensible, enabling the community to add new features and capabilities as workload demands evolved.

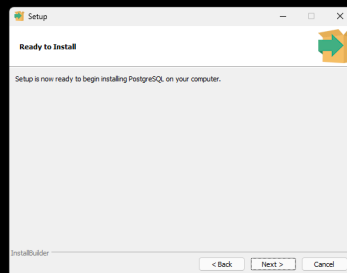
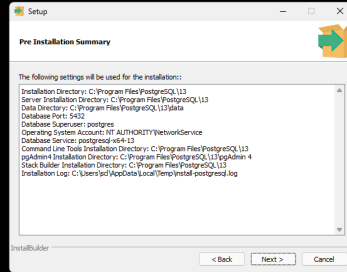
Because of its extensibility, PostgreSQL offers a wide variety of built-in [PostgreSQL data types](#) including JSON, XML, HSTORE (key-value), Geo-spatial (PostGIS), IPv6; flexible indexing, featuring composite indexes, GiST, SP-GiST, GIN; full Text Search, online index reorganization; background workers such as a managed process known as Mongress, which accepts MongoDB queries to interface with Postgres data; a contrib module interface: pgcrypto (data encryption), pg\_trgm (find 'similar' data), HSTORE (schema-less data); and extensive SQL support.

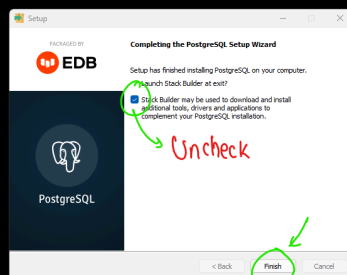
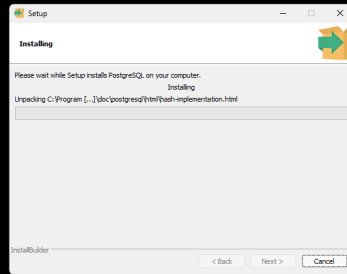








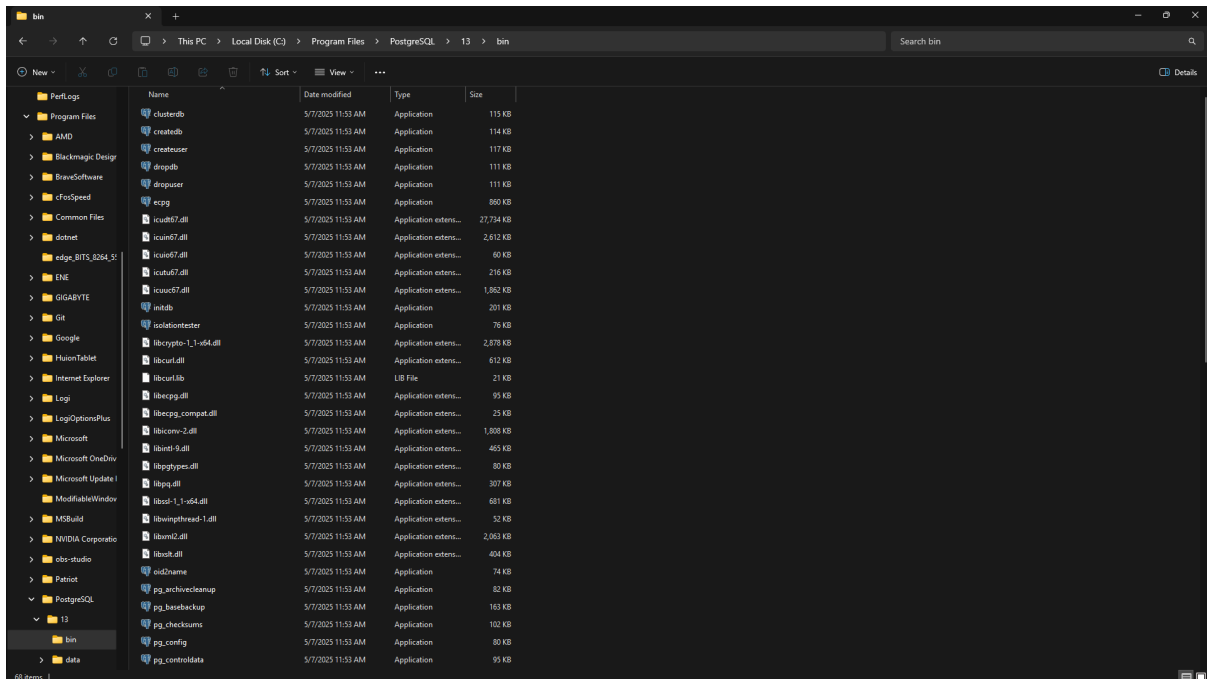






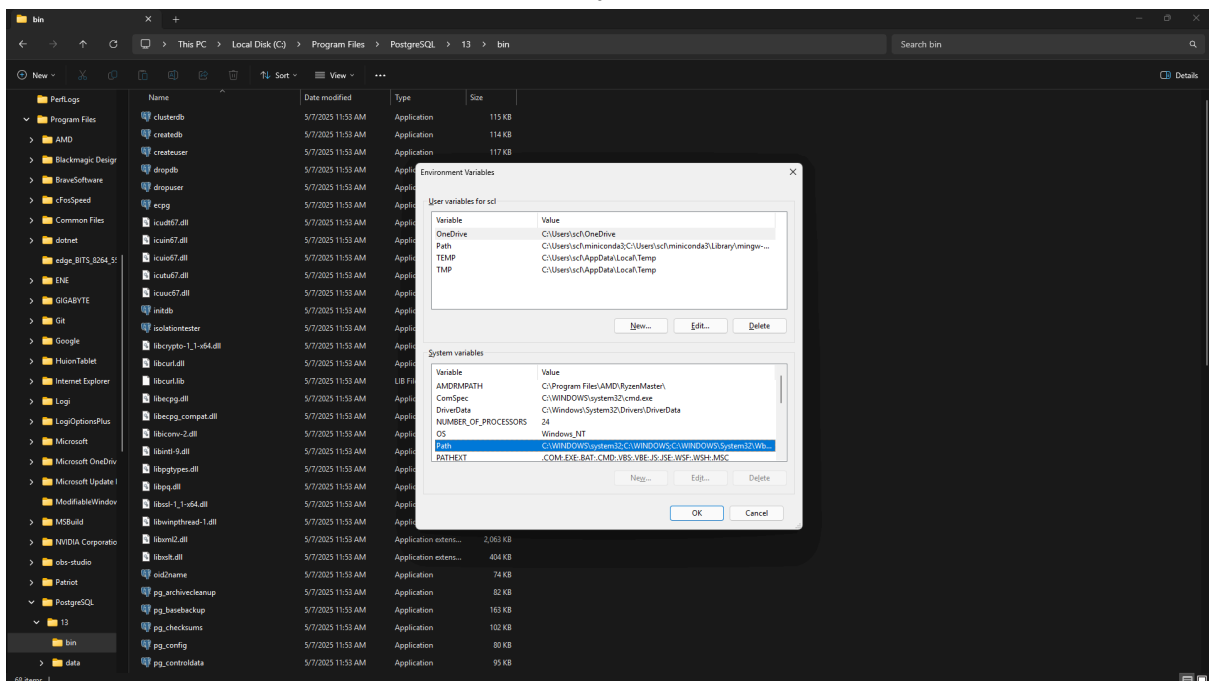
# SET ENVIRONMENT VARIABLES

Go to installation path : C:\Program Files\PostgreSQL\13\bin



Copy path : C:\Program Files\PostgreSQL\13\bin

Add this path to User Variables / System variables > Path and set path



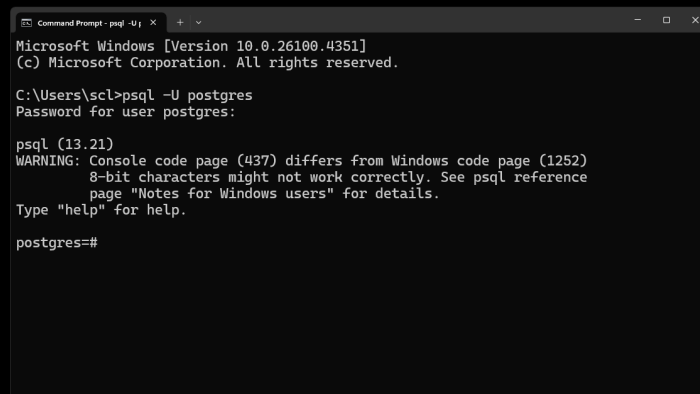
To test installation : Open terminal > psql -U postgres



```
Command Prompt
Microsoft Windows [Version 10.0.26100.4351]
(c) Microsoft Corporation. All rights reserved.

C:\Users\scl>psql -U postgres
```

Write the password you set before and press enter



```
Command Prompt - psql -U postgres
Microsoft Windows [Version 10.0.26100.4351]
(c) Microsoft Corporation. All rights reserved.

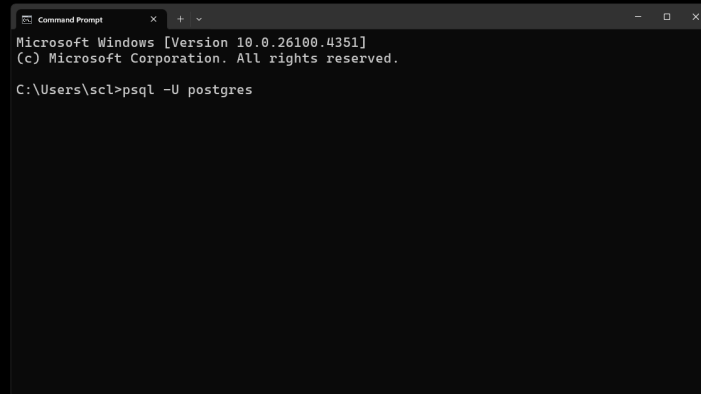
C:\Users\scl>psql -U postgres
Password for user postgres:

psql (13.21)
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

postgres=#
```

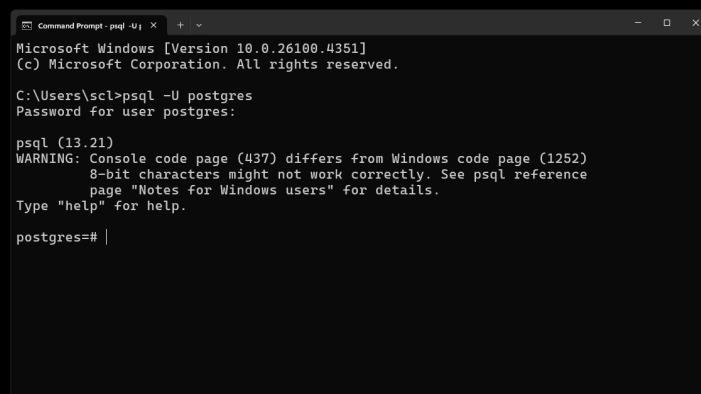
Installation Successful.

## START BASIC



```
Command Prompt
Microsoft Windows [Version 10.0.26100.4351]
(c) Microsoft Corporation. All rights reserved.

C:\Users\scl>psql -U postgres
```



```
Command Prompt - psql -Uj
Microsoft Windows [Version 10.0.26100.4351]
(c) Microsoft Corporation. All rights reserved.

C:\Users\scl>psql -U postgres
Password for user postgres:

psql (13.21)
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

postgres=# |
```

Check current user : **SELECT current\_user;**

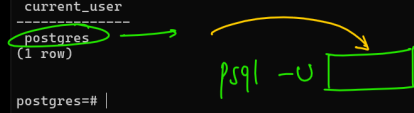
```
Command Prompt - postgresql - U1 x + v
Microsoft Windows [Version 10.0.26100.4351]
(c) Microsoft Corporation. All rights reserved.

C:\Users\scl>psql -U postgres
Password for user postgres:

psql (13.21)
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

postgres=# SELECT current_user;
 current_user
-----
 postgres
(1 row)

postgres=#
```



To list all user with roles in the db system: **\du**

```
Command Prompt - postgresql - U1 x + v
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

postgres=# SELECT current_user;
 current_user
-----
 postgres
(1 row)

postgres=# \du
List of roles
Role name | Attributes | Member of
-----
 postgres | Superuser, Create role, Create DB, Replication, Bypass RLS | {}

postgres=#
```

To list all user with roles + more info in the db system: **\du+**

```
Command Prompt - psql -U postgres
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

postgres=# SELECT current_user;
 current_user
-----
 postgres
(1 row)

postgres=# \du
               List of roles
Role name | Attributes | Member of
-----+-----+-----
 postgres | Superuser, Create role, Create DB, Replication, Bypass RLS | {}

postgres=# \du+
               List of roles
Role name | Attributes | Member of | Description
-----+-----+-----+-----
 postgres | Superuser, Create role, Create DB, Replication, Bypass RLS | {} |

postgres=#
```

Check Tables in the Current Database : **\dt**

To list all tables, views, and sequences : **\d**

To list tables in all schemas : **\dt \*.\***

How to Check Table Schema (Description of a Table) : **\d**

To quit : **\q**

Information about your current connection : **\conninfo**

```
Command Prompt - psql -U postgres
C:\Users\scl>psql -U postgres
Password for user postgres:

psql (13.21)
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

postgres=# \conninfo
You are connected to database "postgres" as user "postgres" on host "localhost" (address "::1") at port "5432".
postgres=#
```

## Current connected database : \conninfo

```
Command Prompt - psql -U j
C:\Users\scl>psql -U postgres
Password for user postgres:

psql (13.21)
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

postgres=# \conninfo
You are connected to database "postgres" as user "postgres" on host "localhost" (address "::1") at port "5432".
postgres=# SELECT current_database();
 current_database
-----
 postgres
(1 row)

postgres=# |
```

## CREATING NEW USER, NEW DATABASE

Create new user : **CREATE USER test WITH PASSWORD 'test123';**

Create New database and make test as owner : **CREATE DATABASE demo1 OWNER test;**

```
Command Prompt - psql -U j
C:\Users\scl>psql -U postgres
Password for user postgres:

psql (13.21)
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

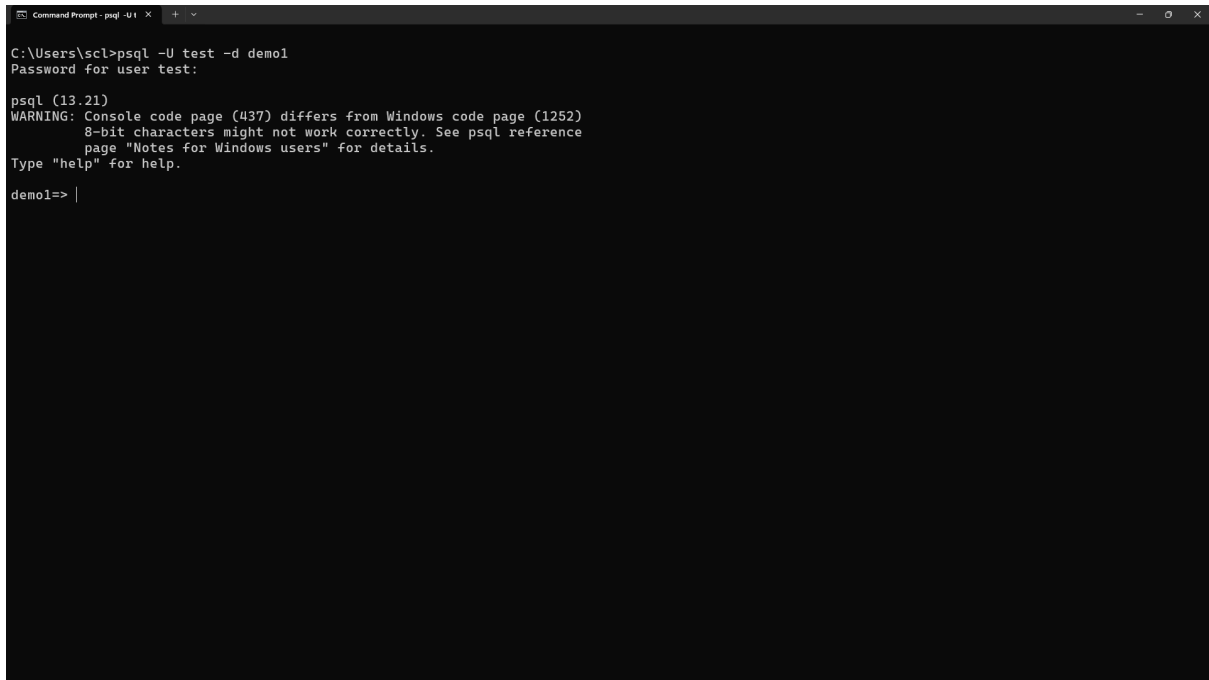
postgres=# \conninfo
You are connected to database "postgres" as user "postgres" on host "localhost" (address "::1") at port "5432".
postgres=# SELECT current_database();
 current_database
-----
 postgres
(1 row)

postgres=# CREATE USER test WITH PASSWORD 'test123';
CREATE ROLE
postgres=# \du+
          List of roles
Role name | Attributes | Member of | Description
-----+-----+-----+-----
postgres | Superuser, Create role, Create DB, Replication, Bypass RLS | {} | 
test     |              | {} | 

postgres=# CREATE DATABASE demo1 OWNER test;
CREATE DATABASE
postgres=# \du+
          List of roles
Role name | Attributes | Member of | Description
-----+-----+-----+-----
postgres | Superuser, Create role, Create DB, Replication, Bypass RLS | {} | 
test     |              | {} | 

postgres=#
```

Verify user **test** can access **demo1**  
Command : **psql -U test -d demo1**



```
C:\Users\scl>psql -U test -d demo1
Password for user test:

psql (13.21)
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.
demo1=> |
```

If you don't specify a database using the **-d** option, **psql** attempts to connect to a database that has the same name as the username you provided.

Download .sql file from here :

Github repo : <https://github.com/lerocha/chinook-database>

SQL dump file :

[https://github.com/lerocha/chinook-database/releases/download/v1.4.5/Chinook\\_PostgreSql.sql](https://github.com/lerocha/chinook-database/releases/download/v1.4.5/Chinook_PostgreSql.sql)

**This will create a Database, Create Multiple Table**

**Step 1 : \q**

**Step 2 : psql -U postgres**

**Step 3 : update line 25 CREATE DATABASE chinook OWNER test;**

**Step 4 : Open .sql with vscode > Select utf-8 at right bottom and open with Western (Windows 1252), now select Western (Windows 1252) at bottom right and this time save with utf-8**

**Step 5 : \i C:/Users/scl/Downloads/Chinook\_PostgreSql.sql**

**Step 6 : psql -U test -d chinook**

**Step 7 (Optional) : If database create on user postgres and we want user test to have all access then GRANT ALL PRIVILEGES ON DATABASE chinook TO test;**

```
Command Prompt - psql -U t x + v
C:\Users\scl>psql -U test -d chinook
Password for user test:

psql (13.21)
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

chinook=> \conninfo
You are connected to database "chinook" as user "test" on host "localhost" (address "::1") at port "5432".
chinook=> \dt
      List of relations
Schema |      Name      | Type | Owner
-----+-----+-----+-----
public | album          | table | postgres
public | artist         | table | postgres
public | customer       | table | postgres
public | employee       | table | postgres
public | genre          | table | postgres
public | invoice        | table | postgres
public | invoice_line   | table | postgres
public | media_type     | table | postgres
public | playlist       | table | postgres
public | playlist_track | table | postgres
public | track          | table | postgres
(11 rows)

chinook=>
```

## INFO OF TABLE (\dt)

```
Command Prompt - psql -U t x + v
public | invoice_line | table | postgres
public | media_type  | table | postgres
public | playlist    | table | postgres
public | playlist_track | table | postgres
public | track       | table | postgres
(11 rows)

chinook=> \dt customer
      List of relations
Schema |      Name      | Type | Owner
-----+-----+-----+-----
public | customer       | table | postgres
(1 row)

chinook=> \dt album
      List of relations
Schema |      Name      | Type | Owner
-----+-----+-----+-----
public | album          | table | postgres
(1 row)

chinook=> \dt playlist
      List of relations
Schema |      Name      | Type | Owner
-----+-----+-----+-----
public | playlist       | table | postgres
(1 row)

chinook=> \dt employee
      List of relations
Schema |      Name      | Type | Owner
-----+-----+-----+-----
public | employee       | table | postgres
(1 row)

chinook=> |
```



## SCHEMA OF TABLE (\d)

```

Command Prompt - pgsql - U1 X
(1 row)

chinook=> \dt employee
List of relations
Schema | Name | Type | Owner
-----+-----+-----+-----
public | employee | table | postgres
(1 row)

chinook=> \d employee
Table "public.employee"
Column | Type | Collation | Nullable | Default
-----+-----+-----+-----+-----
employee_id | integer | | not null |
last_name | character varying(20) | | not null |
first_name | character varying(20) | | not null |
title | character varying(30) | | |
reports_to | integer | | |
birth_date | timestamp without time zone | | |
hire_date | timestamp without time zone | | |
address | character varying(70) | | |
city | character varying(40) | | |
state | character varying(40) | | |
country | character varying(40) | | |
postal_code | character varying(10) | | |
phone | character varying(24) | | |
fax | character varying(24) | | |
email | character varying(60) | | |
Indexes:
    "employee_pkey" PRIMARY KEY, btree (employee_id)
    "employee_reports_to_idx" btree (reports_to)
Foreign-key constraints:
    "employee_reports_to_fkey" FOREIGN KEY (reports_to) REFERENCES employee(employee_id)
Referenced by:
    TABLE "customer" CONSTRAINT "customer_support_rep_id_fkey" FOREIGN KEY (support_rep_id) REFERENCES employee(employee_id)
    TABLE "employee" CONSTRAINT "employee_reports_to_fkey" FOREIGN KEY (reports_to) REFERENCES employee(employee_id)

chinook=> |

```

### Permissions

**P1 : GRANT ALL PRIVILEGES ON DATABASE chinook TO test;**  
**IT grants CONNECT, CREATE, TEMPORARY**

**P2 : GRANT ALL PRIVILEGES ON ALL TABLES IN SCHEMA public TO test;**  
**IT grants SELECT, INSERT, UPDATE, DELETE, TRUNCATE, REFERENCES, and TRIGGER**

**P3 : GRANT ALL PRIVILEGES ON ALL SEQUENCES IN SCHEMA public TO test;**

### BASIC SQL COMMANDS

**READ : SELECT \* FROM Artist;**

**READ : SELECT \* FROM Artist LIMIT 5;**

**READ from Specific Columns (1) : SELECT Artist\_Id, Name FROM Artist;**

**READ from Specific Columns (2) : SELECT Title, Artist\_Id FROM Album;**

**CONDITIONAL READ (WHERE clause) (1) : SELECT \* FROM Artist WHERE Name = 'Queen';**

**CONDITIONAL READ (WHERE clause) (2) : SELECT Name, Milliseconds FROM Track WHERE  
 Milliseconds > 300000;**

**CONDITIONAL READ (WHERE clause) (3) : SELECT First\_Name, Last\_Name, Country FROM Customer  
 WHERE Country = 'Canada' OR Country = 'USA';**

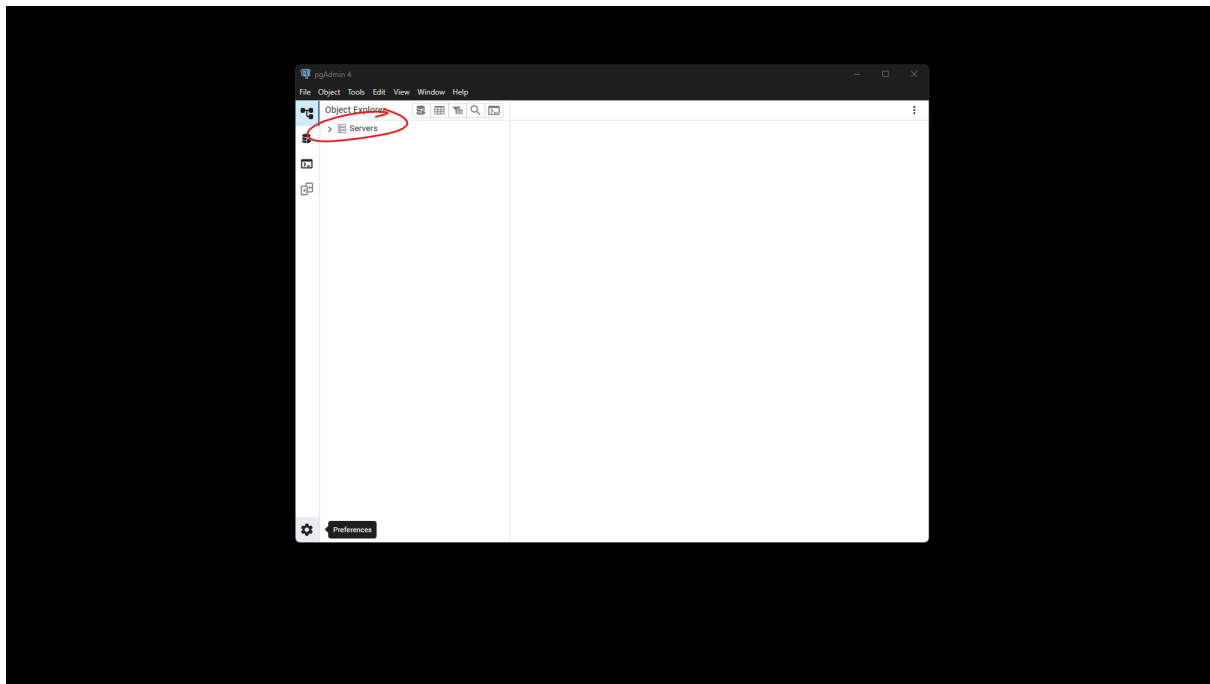
```
Command Prompt - psql -U 1 x + v
C:\Users\scl>psql -U test -d chinook
Password for user test:

psql (13.21)
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

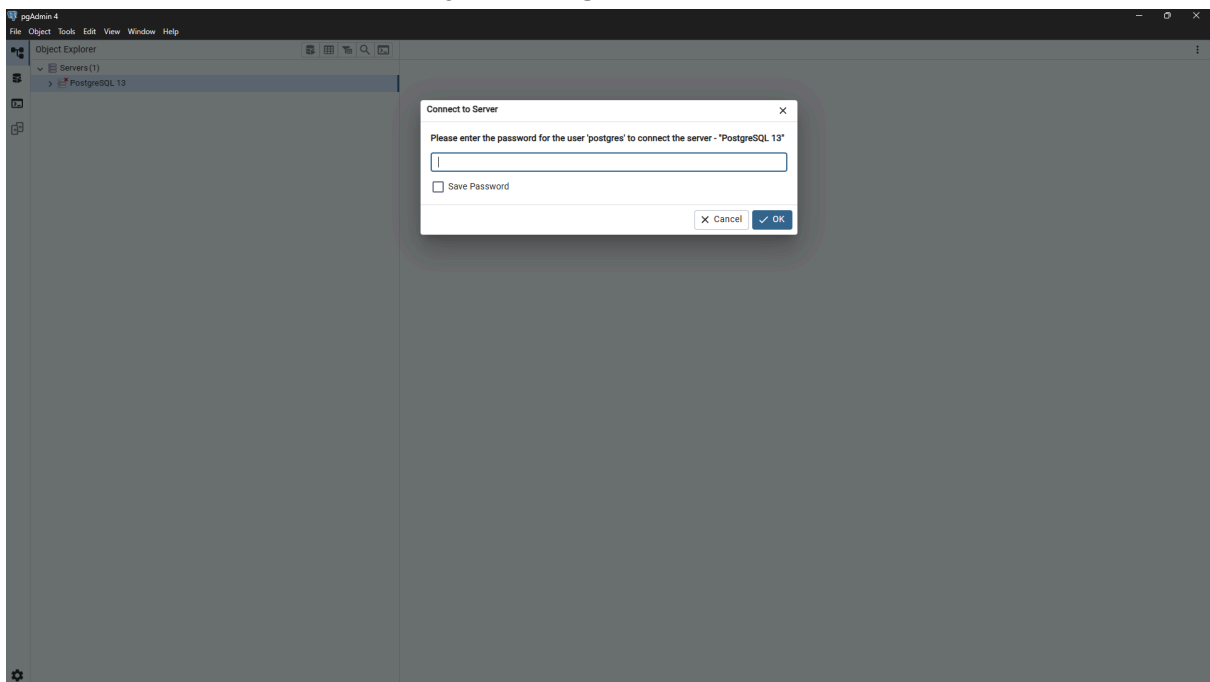
chinook=> SELECT * FROM Artist;
 artist_id | name
-----
1 | AC/DC
2 | Accept
3 | Aerosmith
4 | Alanis Morissette
5 | Alice In Chains
6 | Antônio Carlos Jobim
7 | Apocalyptica
8 | Audioslave
9 | BackBeat
10 | Billy Cobham
11 | Black Label Society
12 | Black Sabbath
13 | Body Count
14 | Bruce Dickinson
15 | Buddy Guy
16 | Caetano Veloso
17 | Chico Buarque
18 | Chico Science & Nação Zumbi
19 | Cidade Negra
20 | Clãudio Zoli
21 | Various Artists
22 | Led Zeppelin
23 | Frank Zappa & Captain Beefheart
24 | Marcos Valle
25 | Milton Nascimento & Bebeto
26 | Azymuth
27 | Gilberto Gil
28 | João Gilberto
```

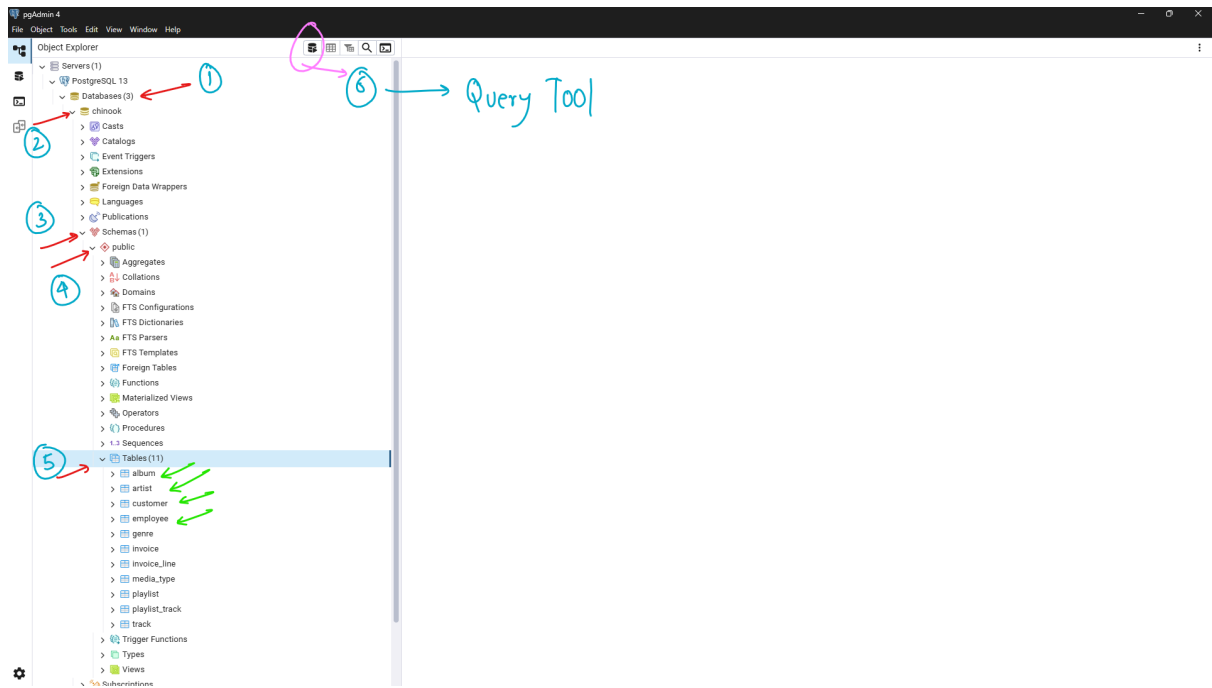
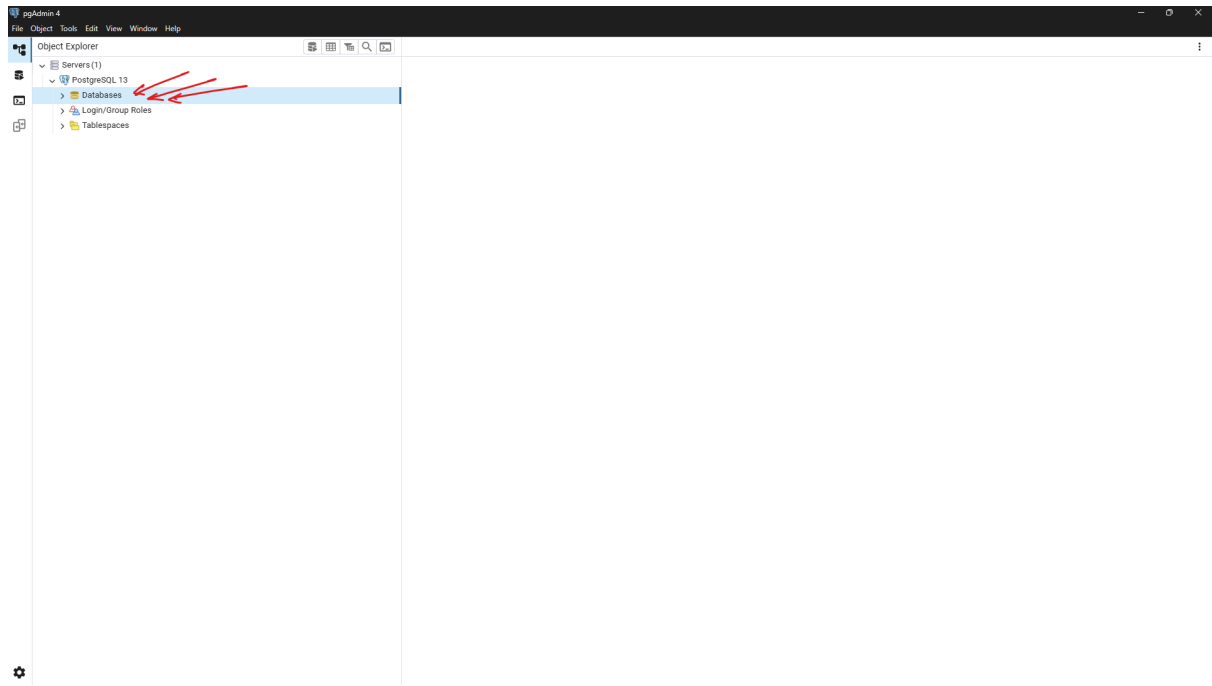
----- WITH UI -----  
**pgAdmin 4**





**Enter your postgres user password**





pgAdmin 4

Object Explorer

Servers (1)

PostgreSQL 13

Databases (3)

chinook

Catalogs

Event Triggers

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Publications

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public

Aggregates

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Domains

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FTS Dictionaries

FTS Parsers

FTS Templates

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album

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album\_id

title

artist\_id

Constraints

Indexes

RLS Policies

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customer

employee

genre

invoice

Query

Query History

1 select \* from album;

Scratch Pad X

Data Output

Messages

Notifications

Showing rows: 1 to 347 Page No: 1 of 1

	album_id [PK] integer	title character varying (160)	artist_id integer
1	1	For Those About To Rock We Salute You	1
2	2	Balls to the Wall	2
3	3	Restless and Wild	2
4	4	Let There Be Rock	1
5	5	Big Ones	3
6	6	Jagged Little Pill	4
7	7	Facelift	5
8	8	Warner 25 Anos	6
9	9	Plays Metalica By Four Cellos	7
10	10	Audioslave	8
11	11	Out Of Exile	8
12	12	Backbeat Soundtrack	9
13	13	The Best Of Billy Cobham	10
14	14	Alcohol Fueled Breerfally Live! [Disc 1]	11

Total rows: 347 Query complete 00:00:00.066

CRLF Ln 1, Col 21

output

THANKYOU