

LiveSQL, PostgreSQL Installation

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1. Oracle LiveSQL (FreeSQL)

2. PostgreSQL

What is Oracle LiveSQL?

- <https://freesql.com/>
- Free, browser-based SQL environment (no local DB install)
- Run SQL & PL/SQL in a hosted Oracle Database
- Great for labs, demos, and sharing runnable scripts
- Not ideal for: production workloads, long-running jobs
- **An Oracle account is required to create or modify tables.**

What is Oracle LiveSQL?

The screenshot shows the Oracle LiveSQL interface. The left sidebar has a red border around the 'Navigator' section, which contains 'My Schema' dropdowns for 'Tables' and 'Search objects'. The main area is a 'SQL Worksheet' with a red border, showing a code editor with the placeholder 'SQL Worksheet: The main editor where you write and edit SQL queries'. Above the editor are buttons for 'Run Current Statement' (single arrow) and 'Run Script' (double arrow). The bottom of the worksheet has tabs for 'Query result', 'Script output', 'DBMS output', 'Explain Plan', and 'SQL history', with 'Query result' selected. A red box highlights the 'Query Result' section below, which displays the message 'Query Result: Displays the output of your executed query (result rows, messages, and execution status)'. The top right features a 'Library' section with a red border, showing a search bar and two tutorial cards: 'SQL Macros - Creating parameteris...' and 'How to Make Reusable SQL Pattern...'. The top navigation bar includes 'FreeSQL', 'Worksheet', 'Library', 'Connect with Java', 'Help and Feedback', and 'Sign Out'.

Navigator: Shows your schema objects that you created

SQL Worksheet: The main editor where you write and edit SQL queries

Query Result: Displays the output of your executed query (result rows, messages, and execution status)

Run Current Statement (▶): Executes only the SQL statement at the cursor

Run Script (▶▶): Executes the entire script in the worksheet

Library

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Tutorial

SQL Macros - Creating parameteris...

This tutorial explains how to create a parameterized view using SQL Macros. The examples use the built-in sales history schema so there are no setup steps.

Created 5 years ago

0 likes 1.3K executions

Script

How to Make Reusable SQL Pattern...

An overview of how to combine SQL pattern matching with SQL macros to create reusable code fragments.

Created 5 years ago

4 likes 0 executions

What is Oracle LiveSQL?

Example Screen

The screenshot shows the Oracle LiveSQL interface. The top navigation bar includes 'FreeSQL', 'Worksheet' (selected), 'Library', '23ai', 'Connect to the Database', 'Help and Feedback', and 'Sign Out'. The left sidebar has 'Navigator' selected, showing 'My Schema' (selected) and 'Tables' (selected). A search bar 'Search objects' is also present. The main area is titled '[SQL Worksheet]*' and contains a SQL editor with the following code:

```
1 CREATE TABLE DEPT (
2   DEPTNO NUMBER(2) CONSTRAINT PK_DEPT PRIMARY KEY,
3   DNAME VARCHAR2(14),
4   LOC VARCHAR2(13)
5 );
```

Below the editor, tabs for 'Query result', 'Script output' (selected), 'DBMS output', 'Explain Plan', and 'SQL history' are visible. The 'Script output' tab shows the executed SQL command and its response:

```
SQL> CREATE TABLE DEPT (
  DEPTNO NUMBER(2) CONSTRAINT PK_DEPT PRIMARY KEY,
  DNAME VARCHAR2(14),
  LOC VARCHAR2(13)...
Show more...
```

The response indicates the table was created successfully:

```
Table DEPT created.
```

Execution details are shown at the bottom:

```
Elapsed: 00:00:00.025
```

What is PostgreSQL?



- PostgreSQL is a free, open-source **relational database management system (RDBMS)**.
- It supports **SQL** and follows **ACID** principles for reliable data storage and transactions.
- It is widely used in industry and academia for applications ranging from small projects to large-scale systems.
- It offers rich features such as **indexes, constraints, views and extensions**.

What is Docker?

- **Docker** is a platform for packaging and running software in **containers**.
- Containers bundle an application with its dependencies, so it runs **consistently across difference environments**.
- Docker makes setup fast and repeatable, without installing complex software directly on your machine.
- It is commonly used for development, testing, and deployment workflows.

Install Docker and PostgreSQL

- Download and install Docker Desktop: <https://www.docker.com/products/docker-desktop/>
- Copy & paste below commands to download and start PostgreSQL in a Docker container.

```
$ docker pull postgres:16
$ docker run --name pg-lab \
-e POSTGRES_USER=lab \
-e POSTGRES_PASSWORD=1234 \
-e POSTGRES_DB=db \
-d postgres:16
$ docker exec -it pg-lab psql -U lab -d db
```

```
(base) [kyong] ~Desktop docker pull postgres:16
16: Pulling from library/postgres
ec2a79bda533: Pull complete
0c71b46e8c99: Pull complete
15b2fd756711: Pull complete
1fd242339bc8: Pull complete
aa19b916d154: Pull complete
8cbeed11a99d: Pull complete
107ddec246f8: Pull complete
73df170eac42: Pull complete
eaa471b9c1c5: Pull complete
a47938761da3: Pull complete
2ae15a201602: Pull complete
b5f374a236c0: Pull complete
26b9f2cade02: Pull complete
8bb8fef25c32: Pull complete
7b60fee80be: Download complete
ae4d81614315: Download complete
Digest: sha256:056b54f00419b49289227ab12d09df508543883f407fe9935a2cec430ef8aa8d
Status: Downloaded newer image for postgres:16
docker.io/library/postgres:16
(base) [kyong] ~Desktop docker run --name pg-lab \
> -e POSTGRES_USER=lab \
> -e POSTGRES_PASSWORD=1234 \
> -e POSTGRES_DB=db \
> -d postgres:16
32a99faeedc358d4dcfb6fb3eb7236a3de78cf2484a2a0bec81169e3056f0e04
(base) [kyong] ~Desktop docker exec -it pg-lab psql -U lab -d db
psql (16.11 (Debian 16.11-1.pgdg13+1))
Type "help" for help.
```

db=#

Screenshot

Run PostgreSQL

- how to exit: type “exit” (postgres=# exit)
- Test sql
 - postgres=# SELECT version();
- Commands
 - \h: help
 - \dt: list of tables
 - \du: user roles
 - \q: quit
 - run command with + (ex: \dt+) for more details