

# Bases de datos 2023-1

## Práctica 1: Bitácora



5 de septiembre de 2022

### Reporte de instalación:

1. *Sistema operativo y versión:* GNU linux 5.19.5-zen (zen kernel)
2. *Distribución:* Arch linux
3. *Versión de la instalación:* psql (PostgreSQL) 14.5
4. *Tiempo requerido:* 15min
5. *Paso a Paso:*  
Primero busqué los paquetes correspondientes en los repos de Arch. Me tuve que asegurar de que postgresql-contrib no era necesario para la instalación.

Luego actualice el sistema:

**sudo pacman -Syu**

```
angelalk ~/ActiveSemester/Databases/lab/p1   sudo pacman -Syu
[sudo] password for angelalk:
:: Synchronizing package databases...
core                               156.2 KiB   27.3 KiB/s 00:06 [#####] 100%
extra                             1844.6 KiB   3.99 MiB/s 00:00 [#####] 100%
community                        6.9 MiB     9.37 MiB/s 00:01 [#####] 100%
multilib                         175.9 KiB   1135 KiB/s 00:00 [#####] 100%
:: Starting full system upgrade...
resolving dependencies...
looking for conflicting packages...

Packages (36) abseil-cpp-20220623.1-1  alsa-card-profiles-1:0.3.57-1  bluez-5.65-3  bluez-libs-5.65-3  chromium-105.0.5195.102-1
ffmpeg-2:5.1.1-1  glib2-2.72.3-3  gnupg-2.2.39-1  grub-2:2.06.r322.gd9b4638c5-4  less-1:608-1  lib32-systemd-251.4-1.1
libaccounts-glib-1.26-1  libdrm-2.4.113-2  libheif-1.13.0-2  libsoup3-3.0.8-1  libssh-0.10.2-1
linux-zen-5.19.6.zen1-1  lz4-1:1.9.4-1  pcrc-8.45-2  pipewire-1:0.3.57-1  pipewire-jack-1:0.3.57-1  poppler-22.09.0-1
poppler-glib-22.09.0-1  poppler-qt5-22.09.0-1  protobuf-21.5-1  python-cachecontrol-1.0.12-1-1
python-inspektr-0.4.0-2  python-protobuf-21.5-1  python-statuptools-1:62.3.4-1  python-validate-pyproject-0.10.1-1
rust-analyzer-20220829-2  tailscale-1.30.0-1  tree-sitter-0.20.7-1  ttc-iosevka-16.1.0-1  wxwidgets-common-3.2.0-6
wxwidgets-gtk3-3.2.0-6

Total Download Size: 356.96 MiB
Total Installed Size: 981.58 MiB
Net Upgrade Size: 8.14 MiB

:: Proceed with installation? [Y/n]
:: Retrieving packages...
linux-zen-5.19.6.zen1-1-x86_64           185.8 MiB  10.7 MiB/s 00:17 [#####] 100%
chromium-105.0.5195.102-1-x86_64        83.9 MiB  10.9 MiB/s 00:08 [#####] 100%
ttc-iosevka-16.1.0-1-any                 29.2 MiB   9.55 MiB/s 00:03 [#####] 100%
ffmpeg-2:5.1.1-1-x86_64                 11.1 MiB  10.1 MiB/s 00:01 [#####] 100%
tailscale-1.30.0-1-x86_64                6.9 MiB   9.48 MiB/s 00:01 [#####] 100%
grub-2:2.06.r322.gd9b4638c5-4-x86_64    6.8 MiB   9.32 MiB/s 00:01 [#####] 100%
```

Instalé los paquetes:

**sudo pacman -S postgresql pgadmin4**

```

angelalk ~/ActiveSemester/Databases/FBD-2023-1/Practica01 ▸ sudo pacman -S postgresql pgadmin4
[sudo] password for angelalk:
resolving dependencies...
looking for conflicting packages...

Packages (2) pgadmin4-4.38-4 postgresql-14.5-1
Total Installed Size: 174.51 MiB

:: Proceed with installation? [Y/n]
(2/2) checking keys in keyring [=====] 100%
(2/2) checking package integrity [=====] 100%
(2/2) loading package files [=====] 100%
(2/2) checking for file conflicts [=====] 100%
(2/2) checking available disk space [=====] 100%
:: Processing package changes...
(1/2) installing postgresql [=====] 100%
Optional dependencies for postgresql
 python: for PL/Python 3 support [installed]
 perl: for PL/Perl support [installed]
 tcl: for PL/Tcl support
 postgresql-oid-upgrade: upgrade from previous major version using pg_upgrade
 logrotate: rotates system logs automatically
(2/2) installing pgadmin4 [=====] 100%
:: Running post-transaction hooks...
(1/6) Creating system user accounts...
(2/6) Reloading system manager configuration...
(3/6) Creating temporary files...
(4/6) Arming ConditionNeedsUpdate...
(5/6) Updating icon theme caches...
(6/6) Updating the desktop file MIME type cache...
angelalk ~/ActiveSemester/Databases/FBD-2023-1/Practica01 ▸

```

Cambiar a usuario de postgres:  
**sudo -iu postgres**

Comando para iniciar cluster de postgres:  
**initdb -D /var/lib/postgres/data**

```

angelalk ~/ActiveSemester/Databases/FBD-2023-1/Practica01 ▸ sudo -iu postgres
[postgres@copper ~]$ initdb -D /var/lib/postgres/data
The files belonging to this database system will be owned by user "postgres".
This user must also own the server process.

The database cluster will be initialized with locale "en_US.UTF-8".
The default database encoding has accordingly been set to "UTF8".
The default text search configuration will be set to "english".

Data page checksums are disabled.

creating directory /var/lib/postgres/data ... ok
creating subdirectories ... ok
selecting dynamic shared memory implementation ... posix
selecting default max_connections ... 100
selecting default shared_buffers ... 128MB
selecting default time zone ... America/Mexico_City
creating configuration files ... ok
running bootstrap script ... ok
performing post-bootstrap initialization ... ok
syncing data to disk ... ok

initdb: warning: enabling "trust" authentication for local connections
You can change this by editing pg_hba.conf or using the option -A, or
--auth-local and --auth-host, the next time you run initdb.

Success. You can now start the database server using:

    pg_ctl -D /var/lib/postgres/data -l logfile start

[postgres@copper ~]$

```

Activamos el servicio de postgres:  
**sudo systemctl enable --now postgresql.service**

```

angelalk ~/ActiveSemester/Databases/FBD-2023-1/Practica01 ▸ systemctl status postgresql.service
● postgresql.service - PostgreSQL database server
   Loaded: loaded (/usr/lib/systemd/system/postgresql.service; enabled; preset: disabled)
   Active: inactive (dead)

angelalk ~/ActiveSemester/Databases/FBD-2023-1/Practica01 ▸ sudo systemctl enable --now postgresql.service
angelalk ~/ActiveSemester/Databases/FBD-2023-1/Practica01 ▸ systemctl status postgresql.service
● postgresql.service - PostgreSQL database server
   Loaded: loaded (/usr/lib/systemd/system/postgresql.service; enabled; preset: disabled)
   Active: active (running) since Sun 2022-09-04 14:11:50 CDT; 3s ago
     Process: 2776 ExecStartPre=usr/bin/postgresql-check-db-dir ${PGROOT}/data (code=exited, status=0/SUCCESS)
    Main PID: 2778 (postgres)
       Tasks: 7 (limit: 1377)
      Memory: 15.3M
         CPU: 171ms
    CGroup: /system.slice/postgresql.service
            └─2778 /usr/bin/postgres -D /var/lib/postgres/data
              └─2780 "postgres: checkpoint "
                └─2781 "postgres: background writer "
                  └─2782 "postgres: walwriter "
                    └─2783 "postgres: autovacuum launcher "
                      └─2784 "postgres: stats collector "
                        └─2785 "postgres: logical replication launcher "

angelalk ~/ActiveSemester/Databases/FBD-2023-1/Practica01 ▸

```

Desde el usuario de postgres entramos al cliente y cambiamos la contraseña:  
**psql**  
**ALTER USER postgres WITH PASSWORD 'notmyrealpassword';**

## 6. Comentarios y problemas:

El paquete **postgresql-contrib** no tiene equivalente en Arch, al parecer lo que tiene ya lo satisface el paquete de postgres.

En Arch tienes que correr un comando para iniciar el cluster y luego activar el servicio de postgres, casi me equivoco.

