Projek DOS

Apache Superset CentOS

Install Apache Superset - Centos 9

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1. Update System and Install Dependencies

```
sudo dnf -y update

sudo dnf -y install gcc gcc-c++ libffi-devel python3-devel python3-pip python3-wheel \
                    openssl-devel cyrus-sasl-devel openldap-devel
```

2. Create Application Directory

```
mkdir -p /home/myuser/application/superset

cd /home/myuser/application/superset
```

3. Create Python Virtual Environment

```
cd /home/myuser/application/superset

python3 -m venv venv

source venv/bin/activate
```

Upgrade base tools:

```
pip install --upgrade pip setuptools wheel
```

4. Install Apache Superset and Gunicorn

```
pip install apache_superset gunicorn gevent
```

5. Install Database Driver & Others

For PostgreSQL:

```
pip install psycopg2-binary
```

For exporting PDF:

```
pip install pillow
```

6. Superset Configuration File

Create database & user in PostgreSQL:

```
psql -U postgres -d postgres -h localhost -W
```

Password: postgres

```
postgres=# CREATE DATABASE superset;

CREATE DATABASE

postgres=# CREATE USER superset WITH PASSWORD 'superset';
```

CREATE ROLE

postgres=# GRANT ALL PRIVILEGES ON DATABASE superset TO superset;

GRANT

postgres=#

```
psql (13.20)
Type "help" for help.

postgres=# \l
                                    List of databases
    Name    |    Owner     | Encoding |   Collate   |    Ctype    |       Access privileges
------------+--------------+----------+-------------+-------------+-------------------------------
 airflow_pg | postgres     | UTF8     | en_US.UTF-8 | en_US.UTF-8 | =Tc/postgres                +
            |              |          |             |             | postgres=CTc/postgres       +
            |              |          |             |             | airflow_user=CTc/postgres
 db_migrate | migrate_user | UTF8     | en_US.UTF-8 | en_US.UTF-8 | =Tc/migrate_user            +
            |              |          |             |             | migrate_user=CTc/migrate_user
 postgres   | postgres     | UTF8     | en_US.UTF-8 | en_US.UTF-8 |
 superset   | postgres     | UTF8     | en_US.UTF-8 | en_US.UTF-8 | =Tc/postgres                +
            |              |          |             |             | postgres=CTc/postgres       +
            |              |          |             |             | superset=CTc/postgres
 template0  | postgres     | UTF8     | en_US.UTF-8 | en_US.UTF-8 | =c/postgres                 +
            |              |          |             |             | postgres=CTc/postgres
 template1  | postgres     | UTF8     | en_US.UTF-8 | en_US.UTF-8 | =c/postgres                 +
            |              |          |             |             | postgres=CTc/postgres
(6 rows)
```

```
postgres=# \c superset
Password:
You are now connected to database "superset" as user "postgres".
superset=# \dt
                  List of relations
 Schema |            Name             | Type  |  Owner
--------+-----------------------------+-------+----------
 public | ab_group                    | table | superset
 public | ab_group_role               | table | superset
 public | ab_permission               | table | superset
 public | ab_permission_view          | table | superset
 public | ab_permission_view_role     | table | superset
 public | ab_register_user            | table | superset
 public | ab_role                     | table | superset
 public | ab_user                     | table | superset
 public | ab_user_group               | table | superset
 public | ab_user_role                | table | superset
 public | ab_view_menu                | table | superset
 public | alembic_version             | table | superset
 public | annotation                  | table | superset
 public | annotation_layer            | table | superset
 public | cache_keys                  | table | superset
 public | css_templates               | table | superset
 public | dashboard_roles             | table | superset
 public | dashboard_slices            | table | superset
 public | dashboard_user              | table | superset
 public | dashboards                  | table | superset
 public | database_user_oauth2_tokens | table | superset
```

Generate a secret key:
openssl rand -base64 42

Example output:

r4K8OIfasdawD+dSFasdasasdasfasdNasdGhYpiLDCbcetasdaFhE

Create file:

/home/myuser/application/superset/superset_config.py

Content:
import os

SECRET_KEY = os.getenv("SUPERSET_SECRET_KEY",
"PUT_THE_SECRET_KEY_IN_HERE")

SQLALCHEMY_DATABASE_URI = "postgresql://superset:superset@127.0.0.1:5432/superset"

WTF_CSRF_ENABLED = True

---

7. Initialize Superset

Activate venv:
cd /home/myuser/application/superset

source venv/bin/activate

export SUPERSET_CONFIG_PATH=/home/myuser/application/superset/superset_config.py

export FLASK_APP=superset

export SUPERSET_SECRET_KEY=$(openssl rand -base64 42)

Run initialization commands:
Initialize DB

superset db upgrade

Create admin user

superset fab create-admin \

--username admin \

--firstname Admin \

--lastname User \

--email admin@example.com \

--password 'admin'

Create default roles and permissions

superset init

8. Create systemd Service for Superset

Create shell script:

touch /home/myuser/script/run_superset.sh

chmod +x /home/myuser/script/run_superset.sh

vi /home/myuser/script/run_superset.sh

Content:

```
#!/bin/bash
# Activate Superset virtual environment
source /home/myuser/application/superset/venv/bin/activate

# Set Flask app for Superset
export FLASK_APP=superset
export SUPERSET_HOME=/home/myuser/application/superset
export SUPERSET_CONFIG_PATH=/home/myuser/application/superset/superset_config.py
# Optional: Kill any existing process on port 8088
PORT=8088
PID=$(lsof -ti:$PORT)
if [ ! -z "$PID" ]; then
  echo "Port $PORT in use by PID $PID, killing..."
  kill -9 $PID
fi
# Start Superset
exec superset run -h 0.0.0.0 -p 8088 --with-threads
```

Create systemd service file:

sudo vi /etc/systemd/system/superset.service

Content:

```
[Unit]
Description=Apache Superset
After=network.target postgresql.service
Requires=postgresql.service

[Service]
User=administrator
Group=administrator
WorkingDirectory=/home/myuser/application/superset
Environment="PATH=/home/myuser/application/superset/venv/bin:/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin"
ExecStart=/bin/bash /home/myuser/script/run_superset.sh
Restart=always
RestartSec=5s
[Install]
WantedBy=multi-user.target
```

Reload and enable service:

```
sudo systemctl daemon-reload
sudo systemctl enable superset
sudo systemctl status superset
sudo systemctl start superset
```

```
[administrator@doslabs ~]$ sudo systemctl status superset
● superset.service - Apache Superset
     Loaded: loaded (/etc/systemd/system/superset.service; enabled; preset: disabled)
     Active: active (running) since Fri 2025-08-29 21:58:53 WIB; 22h ago
   Main PID: 1989 (superset)
      Tasks: 13 (limit: 48639)
     Memory: 527.8M
        CPU: 4min 46.482s
     CGroup: /system.slice/superset.service
             └─1989 /home/administrator/application/superset/venv/bin/python3 /home/administrator/

Aug 30 20:11:20 doslabs bash[1989]: 2025-08-30 20:11:20,071:INFO:werkzeug:180.254.78.144 - - [30/A
Aug 30 20:11:20 doslabs bash[1989]: 2025-08-30 20:11:20,641:INFO:werkzeug:180.254.78.144 - - [30/A
Aug 30 20:11:20 doslabs bash[1989]: 2025-08-30 20:11:20,669:INFO:werkzeug:180.254.78.144 - - [30/A
Aug 30 20:11:20 doslabs bash[1989]: 2025-08-30 20:11:20,677:INFO:werkzeug:180.254.78.144 - - [30/A
Aug 30 20:11:20 doslabs bash[1989]: 2025-08-30 20:11:20,683:INFO:werkzeug:180.254.78.144 - - [30/A
Aug 30 20:11:21 doslabs bash[1989]: 2025-08-30 20:11:21,039:INFO:werkzeug:180.254.78.144 - - [30/A
Aug 30 20:11:21 doslabs bash[1989]: 2025-08-30 20:11:21,095:INFO:werkzeug:180.254.78.144 - - [30/A
Aug 30 20:11:21 doslabs bash[1989]: 2025-08-30 20:11:21,116:INFO:werkzeug:180.254.78.144 - - [30/A
Aug 30 20:11:21 doslabs bash[1989]: 2025-08-30 20:11:21,713:INFO:werkzeug:180.254.78.144 - - [30/A
Aug 30 20:11:22 doslabs bash[1989]: 2025-08-30 20:11:22,020:INFO:werkzeug:180.254.78.144 - - [30/A
[administrator@doslabs ~]$
```

---

9. Open Firewall (if needed)

`sudo firewall-cmd --add-port=8088/tcp --permanent`

`sudo firewall-cmd --reload`

10. Verify Installation

Check health endpoint:
`curl -s http://localhost:8088/health`

Expected output:
`OK`

Check Superset Server http://your_ip:8088