

Database Installation Guide: MongoDB & PostgreSQL

This guide provides instructions for installing both MongoDB and PostgreSQL on an Ubuntu system.

Part 1: Install MongoDB (Community Edition)

These steps are for installing MongoDB 7.0 on Ubuntu 22.04 (Jammy Jellyfish).

1. Import the MongoDB GPG Key

First, install gnupg and curl if you don't have them:

```
sudo apt-get install gnupg curl
```

Then, import the MongoDB public GPG key:

```
curl -fsSL  
[https://www.mongodb.org/static/pgp/server-7.0.asc](https://www.mongodb.org/static/pgp/server-7.0.asc) | \  
  sudo gpg -o /usr/share/keyrings/mongodb-server-7.0.gpg \  
  --dearmor
```

2. Create a List File for MongoDB

This tells apt where to find the MongoDB packages.

```
echo "deb [ arch=amd64,arm64 signed-by=/usr/share/keyrings/mongodb-server-7.0.gpg ]  
[https://repo.mongodb.org/apt/ubuntu](https://repo.mongodb.org/apt/ubuntu)  
jammy/mongodb-org/7.0 multiverse" | \  
  sudo tee /etc/apt/sources.list.d/mongodb-org-7.0.list
```

3. Update Package Lists and Install

Reload your local package database and then install the MongoDB packages:

```
sudo apt-get update  
sudo apt-get install -y mongodb-org
```

4. Start and Verify MongoDB

Start the MongoDB service and (optionally) enable it to start on boot.

```
sudo systemctl start mongod  
sudo systemctl status mongod
```

To enable it to start automatically when your system boots:

```
sudo systemctl enable mongod
```

5. Connect to MongoDB

You can connect to your local database using the MongoDB Shell:

```
mongosh
```

Part 2: Install PostgreSQL

These steps install PostgreSQL from Ubuntu's default repositories, which is the simplest and most common method.

1. Update and Install PostgreSQL

Refresh your package lists and install the postgresql package and the postgresql-contrib package (which adds extra utilities):

```
sudo apt-get update  
sudo apt-get install -y postgresql postgresql-contrib
```

2. Start and Verify PostgreSQL

The service should start automatically after installation. You can check its status:

```
sudo systemctl status postgresql
```

If it's not running, you can start it manually:

```
sudo systemctl start postgresql.service
```

3. Access the PostgreSQL Prompt

PostgreSQL creates a default user named `postgres`. You can access the `psql` command-line prompt by running `psql` as that user:

```
sudo -u postgres psql
```

To exit the `psql` prompt, type:

```
\q
```