Installation required for the auto mail project

**1 . Download the PostgreSQL on Linux server.**

Ubuntu includes PostgreSQL by default. To install PostgreSQL on Ubuntu, use the apt (or other apt-driving) command:

**STEP 1 . installation for postgresql**

Code : sudo apt install postgresql

sudo systemctl status PostgreSQL

**STEP 2: Create a PostgreSQL User and Database**

* Switch to the postgres user

sudo -u postgres

psql

* Create a new user and database

CREATE USER ##yourusername WITH PASSWORD '#YOURPASSWORD';

CREATE DATABASE ##YOURDATABASENAME;

GRANT ALL PRIVILEGES ON DATABASE ##YOURDATABASENAME TO ##yourusername ;

\q

Example :

CREATE USER remoteuser WITH PASSWORD 'StrongP@ssw0rd';

CREATE DATABASE remotedb;

GRANT ALL PRIVILEGES ON DATABASE remotedb TO remoteuser;

\q

**STEP 3: Configure PostgreSQL to Accept Remote Connections**

1. Edit postgresql.conf to listen on all IPs

sudo nano /etc/postgresql/\*/main/postgresql.conf

find there

#listen\_addresses = 'localhost'

Change it to:

listen\_addresses = '\*'

then save and exit

Edit pg\_hba.conf to Allow Remote Connections

sudo nano /etc/postgresql/\*/main/pg\_hba.conf

At the bottom, add:

# Allow all IPs (use cautiously, see note below)

host all all 0.0.0.0/0 md5

🔐 Important: For security, replace 0.0.0.0/0 with a specific IP or CIDR block (e.g., 192.168.1.100/32) if possible.

**STEP** **4. Restart PostgreSQL**

sudo systemctl restart postgresql

**2 . Now we need to install the pgadmin4 for the web to run the postgresql. so we will download the pgadmin4 for the Linux world.**

run the following commands:

#Setup the repository

# Install the public key for the repository (if not done previously):

curl -fsS https://www.pgadmin.org/static/packages\_pgadmin\_org.pub | sudo gpg --dearmor -o /usr/share/keyrings/packages-pgadmin-org.gpg

# Create the repository configuration file:

sudo sh -c 'echo "deb [signed-by=/usr/share/keyrings/packages-pgadmin-org.gpg] https://ftp.postgresql.org/pub/pgadmin/pgadmin4/apt/$(lsb\_release -cs) pgadmin4 main" > /etc/apt/sources.list.d/pgadmin4.list && apt update'

# Install pgAdmin

# Install for both desktop and web modes:

sudo apt install pgadmin4

# Install for desktop mode only:

sudo apt install pgadmin4-desktop

# Install for web mode only:

sudo apt install pgadmin4-web

# Configure the webserver, if you installed pgadmin4-web:

sudo /usr/pgadmin4/bin/setup-web.sh

**You can now start using pgAdmin4 in web mode at** [**http://127.0.0.1/pgadmin4**](http://127.0.0.1/pgadmin4)

**3. Schedule a cron job for a specific file.**

**1 . First, open the crontab editor:**

**crontab –e**

Add a cron job, for example, running every day at 5 AM:

**0 5 \* \* \* python3 /path/to/pthonfile.py**

Save and exit the editor.

**2. Set Postfix as the MTA**

sudo apt update

sudo apt install postfix

sudo systemctl enable postfix

sudo systemctl start postfix

After install, verify Postfix is running:

systemctl status postfix

If not running, start it:

sudo systemctl start postfix

**3. Install mailutils (provides mail command)**

sudo apt install mailutils

Make sure script is executable:

chmod +x /path/to/python.py

**To see the error we have the command this is as follows:**

**grep cron /var/log/syslog**

**So this is the final configuration now we see what is the error occurred if there is any then solve these accordingly**

**THANK YOU**