Set up of dynamodb with postgresql

1. echo "deb http://apt.postgresql.org/pub/repos/apt/`lsb _release -cs`-pgdg main" | sudo tee /etc/apt/sources.list.d/pgdg.list

2. `wget --quiet -O - https://www.postgresql.org/media/keys/ACCC4CF8.asc | sudo apt-key add -`

3. `sudo apt-get update`

4. `sudo add-apt-repository ppa:timescale/timescaledb-ppa`

5. `sudo apt-get update`

6. comment—you can change 10 as 9.6 or 11 as your need of version

   `sudo apt install timescaledb-postgresql-10`

7. `go get github.com/timescale/timescaledb-tune/cmd/times`

8. Comment –   step 8 use if step 9 is not run

   `sudo apt install golang-go`

   `or`

   `sudo apt install gccgo-go`

9. `timescaledb-tune`

   Comment--   and then

   sudo service postgresql restart

10. comment-- may be needed file is

   `timescaledb-tune --quiet --yes --dry-run >> /path/to/postgresql.conf`

11. comment --this is used to make superuser to enter into the serveces

   `sudo -u postgres psql -c "ALTER USER postgres PASSWORD 'postgres';"`

12. sudo service postgresql restart

13. psql -U postgres -h localhost

14. CREATE database tutorialspoint

15. \c tutorialspoint

16. CREATE EXTENSION timescaledb;

Comment --NOW YOU TIMESCALE DB HAS BEEN CREATED

17. CREATE TABLE conditions (

```
  time         TIMESTAMPTZ        NOT NULL,
  location     TEXT               NOT NULL,
  temperature DOUBLE PRECISION   NULL,
  humidity     DOUBLE PRECISION   NULL
);
```

18. Now change PosteSQL to hypertable meand timescaledb

19. SELECT create_hypertable('conditions', 'time');

20. Inserting the query

 INSERT INTO conditions(time, location, temperature, humidity)

   VALUES (NOW(), 'office', 70.0, 50.0);

21. SELECT * FROM conditions ORDER BY time DESC LIMIT 100;

22. If you want to change the port of address of which is given default value

       Port=5432;

You can go to postgresql.conf file and then you can change the address of port
according to you

ubuntu@ip-172-31-24-47:~$ sudo service postgresql restart

ubuntu@ip-172-31-24-47:~$ pwd

/home/ubuntu

ubuntu@ip-172-31-24-47:~$ ls

go

ubuntu@ip-172-31-24-47:~$ cd /etc/

ubuntu@ip-172-31-24-47:/etc$ ls

```
ubuntu@ip-172-31-24-47:/etc$ cd postgresql

ubuntu@ip-172-31-24-47:/etc/postgresql$ ls

10

ubuntu@ip-172-31-24-47:/etc/postgresql$ cd 10

ubuntu@ip-172-31-24-47:/etc/postgresql/10$ ls

main

ubuntu@ip-172-31-24-47:/etc/postgresql/10$ cd main

ubuntu@ip-172-31-24-47:/etc/postgresql/10/main$ ls

conf.d  environment  pg_ctl.conf  pg_hba.conf  pg_ident.conf  postgresql.conf
start.conf

ubuntu@ip-172-31-24-47:/etc/postgresql/10/main$ sudo vi postgresql.conf


[1]+  Stopped                 sudo vi postgresql.conf

ubuntu@ip-172-31-24-47:/etc/postgresql/10/main$ cd..

cd..: command not found

ubuntu@ip-172-31-24-47:/etc/postgresql/10/main$ vi..

vi..: command not found

ubuntu@ip-172-31-24-47:/etc/postgresql/10/main$ cd \

ubuntu@ip-172-31-24-47:~$
```

ubuntu@ip-172-31-24-47:~$ **sudo timescaledb-tune**

Using postgresql.conf at this path:

/etc/postgresql/10/main/postgresql.conf

Is this correct? [(y)es/(n)o]: y

Writing backup to:

/tmp/timescaledb_tune.backup202003130158

shared_preload_libraries needs to be updated

Current:

#shared_preload_libraries = ''

Recommended:

shared_preload_libraries = 'timescaledb'

Is this okay? [(y)es/(n)o]: y

success: shared_preload_libraries will be updated

Tune memory/parallelism/WAL and other settings? [(y)es/(n)o]: y

Recommendations based on 983.69 MB of available memory and 1 CPUs for PostgreSQL
10

Memory settings recommendations

Current:

shared_buffers = 128MB

#effective_cache_size = 4GB

#maintenance_work_mem = 64MB

#work_mem = 4MB

Recommended:

shared_buffers = 251825kB

effective_cache_size = 755475kB

maintenance_work_mem = 125912kB

work_mem = 1259kB

Is this okay? [(y)es/(s)kip/(q)uit]: y

success: memory settings will be updated

WAL settings recommendations

Current:

#wal_buffers = -1

#min_wal_size = 80MB

#max_wal_size = 1GB

Recommended:

wal_buffers = 7554kB

min_wal_size = 4GB

max_wal_size = 8GB

Is this okay? [(y)es/(s)kip/(q)uit]: s

warning: WAL settings left alone, but still need tuning

Miscellaneous settings recommendations

Current:

#default_statistics_target = 100

#random_page_cost = 4.0

#checkpoint_completion_target = 0.5

#max_locks_per_transaction = 64

#autovacuum_max_workers = 3

#autovacuum_naptime = 1min

#effective_io_concurrency = 1

Recommended:

default_statistics_target = 500

random_page_cost = 1.1

checkpoint_completion_target = 0.9

max_locks_per_transaction = 64

autovacuum_max_workers = 10

autovacuum_naptime = 10

effective_io_concurrency = 200

Is this okay? [(y)es/(s)kip/(q)uit]: y

success: miscellaneous settings will be updated

Saving changes to: /etc/postgresql/10/main/postgresql.conf

ubuntu@ip-172-31-24-47:~$ sudo service postgresql restart
ubuntu@ip-172-31-24-47:~$ psql -U postgres -h localhost
Password for user postgres:

psql (10.12 (Ubuntu 10.12-0ubuntu0.18.04.1))

SSL connection (protocol: TLSv1.3, cipher: TLS_AES_256_GCM_SHA384, bits: 256, compression: off)

Type "help" for help.

postgres=# \c my_db

SSL connection (protocol: TLSv1.3, cipher: TLS_AES_256_GCM_SHA384, bits: 256, compression: off)

You are now connected to database "my_db" as user "postgres".

my_db=# CREATE EXTENSION timescaledb;

WARNING:

WELCOME TO

```
 _____ _                             _      _____
|_   _(_)                           | |    |  _ \___  \
  | |  _ _ __ ___   ___  ___  ___ __ _| | ___| | | | / /
  | | | | '_ ` _ \ / _ \/ __|/ __/ _` | |/ _ \ | | |  __ \
  | | | | | | | | |  __/\__ \ (_| (_| | |  __/ |/ /| | / /
  |_| |_|_| |_| |_|\___||___/\___\__,_|_|\___|___/ \____/
```

          Running version 1.6.0

For more information on TimescaleDB, please visit the following links:

 1. Getting started: https://docs.timescale.com/getting-started

 2. API reference documentation: https://docs.timescale.com/api

 3. How TimescaleDB is designed: https://docs.timescale.com/introduction/archite
cture

Note: TimescaleDB collects anonymous reports to better understand and assist our
users.

For more information and how to disable, please see our docs https://docs.timesc
aledb.com/using-timescaledb/telemetry.

CREATE EXTENSION

my_db=# CREATE TABLE conditn(

my_db(# time TIMESTAMPTZ NOT NULL,

my_db(# location TEXT NOT NULL,

my_db(# temperature DOUBLE PRECISION NULL,

```
my_db(# humidity DOUBLE PRECISION NULL

my_db(# );

CREATE TABLE

my_db=# SELECT create_hypertable('conditn','time');

 create_hypertable

----------------------

 (1,public,conditn,t)

(1 row)


my_db=# INSERT INTO conditn(time,location,temperature,humidity) VALUES(NOW(),'office',40.5,65.0);

INSERT 0 1

my_db=# INSERT INTO conditn(time,location,temperature,humidity) VALUES(NOW(),'office',41.5,67.0);

INSERT 0 1

my_db=# SELECT * FROM conditions ORDER BY time DESC LIMIT 100;

ERROR:  relation "conditions" does not exist

LINE 1: SELECT * FROM conditions ORDER BY time DESC LIMIT 100;

              ^

my_db=# SELECT * FROM conditn ORDER BY time DESC LIMIT 100;

         time          | location | temperature | humidity

-------------------------------+----------+-------------+----------

 2020-03-13 02:07:53.477698+00 | office   |      41.5 |      67

 2020-03-13 02:07:40.210341+00 | office   |      40.5 |      65

(2 rows)

My_db=#
```

$ **CREATE EXTENSION IF NOT EXISTS timescaledb CASCADE;**

FATAL: extension "timescaledb" must be preloaded

HINT: Please preload the timescaledb library via shared_preload_libraries.

This can be done by editing the config file at: /etc/postgresql/10/main/postgresql.conf

and adding 'timescaledb' to the list in the shared_preload_libraries config.

    # Modify postgresql.conf:

    shared_preload_libraries = 'timescaledb'

Another way to do this, if not preloading other libraries, is with the command:

    echo "shared_preload_libraries = 'timescaledb'" >> /etc/postgresql/10/main/postgresql.conf

(Will require a database restart.)

If you REALLY know what you are doing and would like to load the library without preloading, you can disable this check with:

    SET timescaledb.allow_install_without_preload = 'on';

SSL connection has been closed unexpectedly

The connection to the server was lost. Attempting reset: Succeeded.

SSL connection (protocol: TLSv1.3, cipher: TLS_AES_256_GCM_SHA384, bits: 256, compression: off)

Confige file

/etc/postgresql/10/main/postgresql.conf

Node js installation

1. sudo apt-get install npm

2. sudo apt-get install nodejs

sudo apt-get install nodejs

Reading package lists... Done

Building dependency tree

Reading state information... Done

The following additional packages will be installed:

  libc-ares2 libhttp-parser2.7.1 nodejs-doc

The following NEW packages will be installed:

  libc-ares2 libhttp-parser2.7.1 nodejs nodejs-doc

0 upgraded, 4 newly installed, 0 to remove and 32 not upgraded.

Need to get 5606 kB of archives.

After this operation, 24.7 MB of additional disk space will be used.

Do you want to continue? [Y/n] y

Get:1 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 nodejs-doc all 8.10.0~dfsg-2ubuntu0.4 [752 kB]

Get:2 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 libc-ares2 amd64 1.14.0-1 [37.1 kB]

Get:3 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic/main amd64 libhttp-parser2.7.1 amd64 2.7.1-2 [20.6 kB]

Get:4 http://us-west-2.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 nodejs amd64 8.10.0~dfsg-2ubuntu0.4 [4796 kB]

Fetched 5606 kB in 0s (55.9 MB/s)

Selecting previously unselected package nodejs-doc.

(Reading database ... 99453 files and directories currently installed.)

Preparing to unpack .../nodejs-doc_8.10.0~dfsg-2ubuntu0.4_all.deb ...

Unpacking nodejs-doc (8.10.0~dfsg-2ubuntu0.4) ...

Selecting previously unselected package libc-ares2:amd64.

Preparing to unpack .../libc-ares2_1.14.0-1_amd64.deb ...

Unpacking libc-ares2:amd64 (1.14.0-1) ...

Selecting previously unselected package libhttp-parser2.7.1:amd64.

Preparing to unpack .../libhttp-parser2.7.1_2.7.1-2_amd64.deb ...

Unpacking libhttp-parser2.7.1:amd64 (2.7.1-2) ...

Selecting previously unselected package nodejs.

Preparing to unpack .../nodejs_8.10.0~dfsg-2ubuntu0.4_amd64.deb ...

Unpacking nodejs (8.10.0~dfsg-2ubuntu0.4) ...

Setting up nodejs-doc (8.10.0~dfsg-2ubuntu0.4) ...

Setting up libhttp-parser2.7.1:amd64 (2.7.1-2) ...

Setting up libc-ares2:amd64 (1.14.0-1) ...

Setting up nodejs (8.10.0~dfsg-2ubuntu0.4) ...

update-alternatives: using /usr/bin/nodejs to provide /usr/bin/js (js) in auto mode

Processing triggers for man-db (2.8.3-2ubuntu0.1) ...

Processing triggers for libc-bin (2.27-3ubuntu1) ...