

# Project Documentation Developer's Manual

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PROJECT TITLE - **“PostgreSQL Data Server migration within heterogeneous environment.”**

Project duration- 1 June 2018 -18 June 2018

Organisation- Bhaskaracharya Institute for Space Applications and Geoinformatics. Gandhinagar.

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- **About the code-:** First a list of databases which is to be transferred is created.
- If the database already exists in remote server, then that database is dropped from remote server.
- A new database with same name is created in remote server.
- Then the database to be transferred is backed up and restored to the new database using some functionalities of PostgreSQL like pg\_dump, psql.
- A log file is created at end of process which includes information about the name of database transferred or errors that occurred (if any).
- The code is stored in .bat format and executed on command prompt.

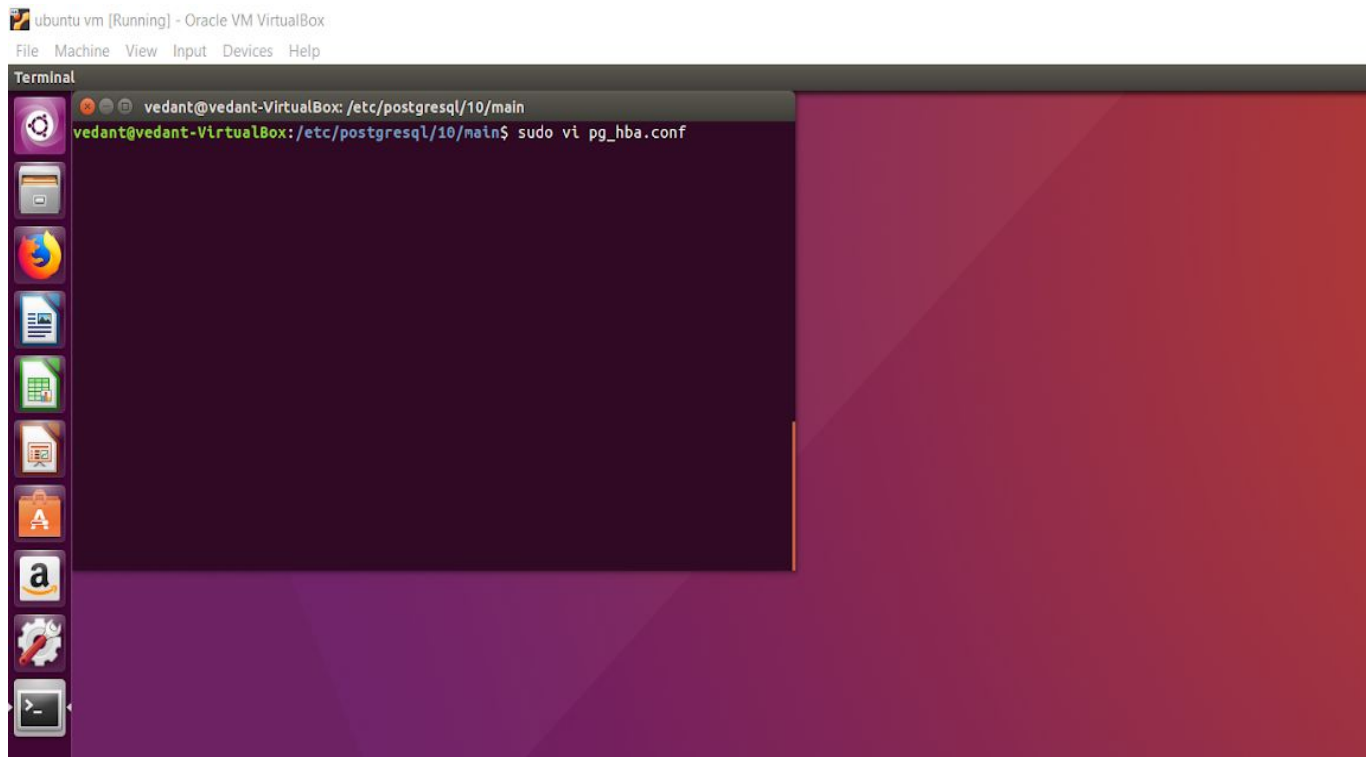
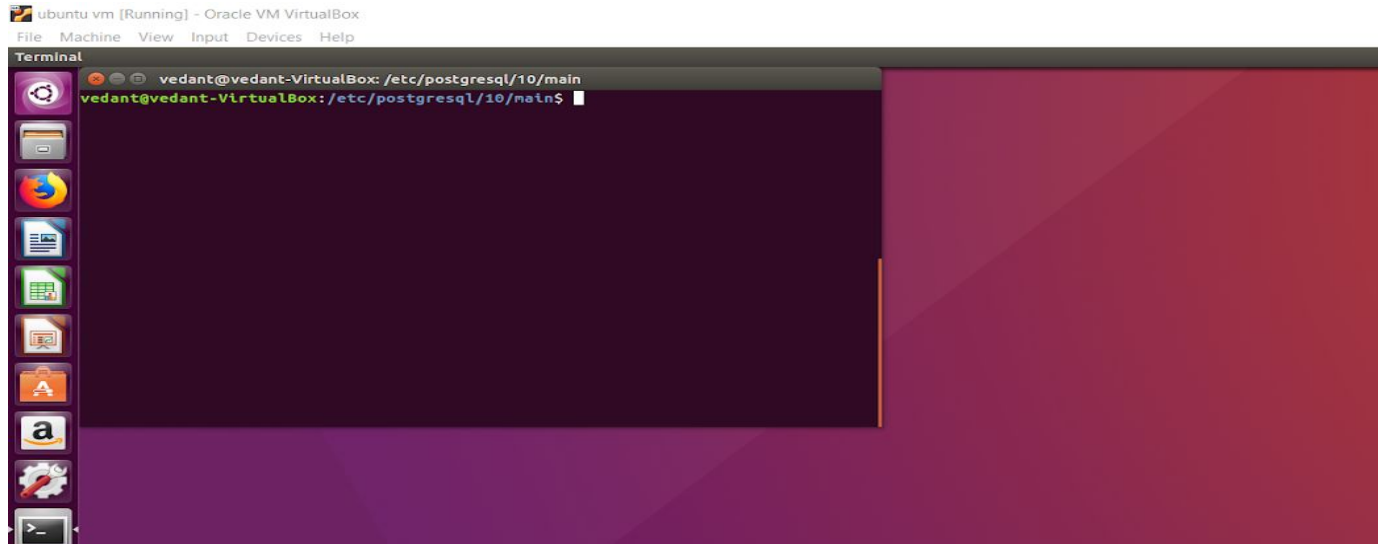
**\*Point to note-** Ensure that proper connection is authorized by both the servers towards each other.

- If there exists any connectivity issue you can sort it out by following the below mentioned steps.

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1-In Ubuntu OS open the terminal. Change the directory using the command to /etc/postgresql/10/main.



-Then type the command `sudo vi pg_hba.conf` and press enter. You will see the screen as shown below.

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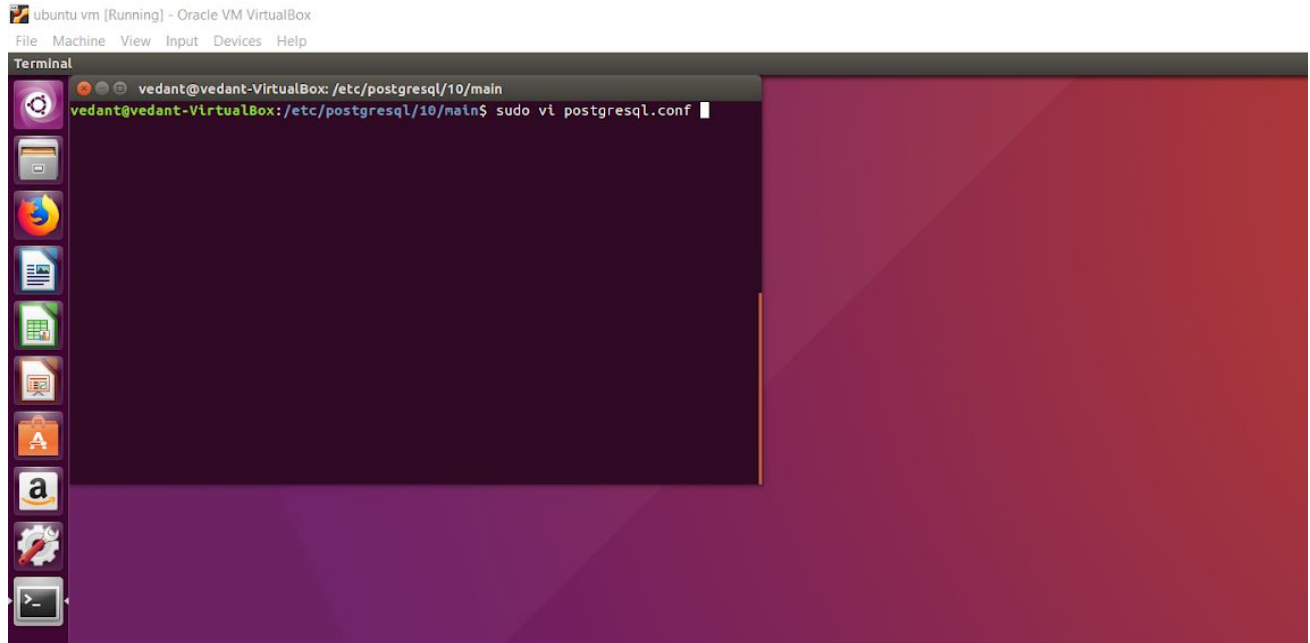
```
vedant@vedant-VirtualBox: /etc/postgresql/10/main
# DO NOT DISABLE!
# If you change this first entry you will need to make sure that the
# database superuser can access the database using some other method.
# Noninteractive access to all databases is required during automatic
# maintenance (custom daily cronjobs, replication, and similar tasks).
#
# Database administrative login by Unix domain socket
local    all             postgres                                peer
#
# TYPE      DATABASE        USER            ADDRESS                 METHOD
# "local" is for Unix domain socket connections only
local    all             all              peer
# IPv4 local connections:
host     all             all             127.0.0.1/32            md5
# IPv6 local connections:
host     all             all             ::1/128                 md5
# Allow replication connections from localhost, by a user with the
# replication privilege.
local    replication      all             peer
host     replication      all             127.0.0.1/32            md5
host     replication      all             ::1/128                 md5
host     all              all             0.0.0.0/0               md5
100,16-41      Bot
```

```
vedant@vedant-VirtualBox: /etc/postgresql/10/main
# If external_pid_file is not explicitly set, no extra PID file is written.
external_pid_file = '/var/run/postgresql/10-main.pid' # write
an extra PID file                                     # (change requires restart)
#-----
# CONNECTIONS AND AUTHENTICATION
#-----
# - Connection Settings -
listen_addresses = '*' # what IP address(es) to listen on;
                        # comma-separated list of addresses;
                        # defaults to 'localhost'; use '*' for a
                        # (change requires restart)
port = 5432            # (change requires restart)
max_connections = 100  # (change requires restart)
#superuser_reserved_connections = 3 # (change requires restart)
unix_socket_directories = '/var/run/postgresql' # comma-separated list of direct
ories                  60,1      7%
```

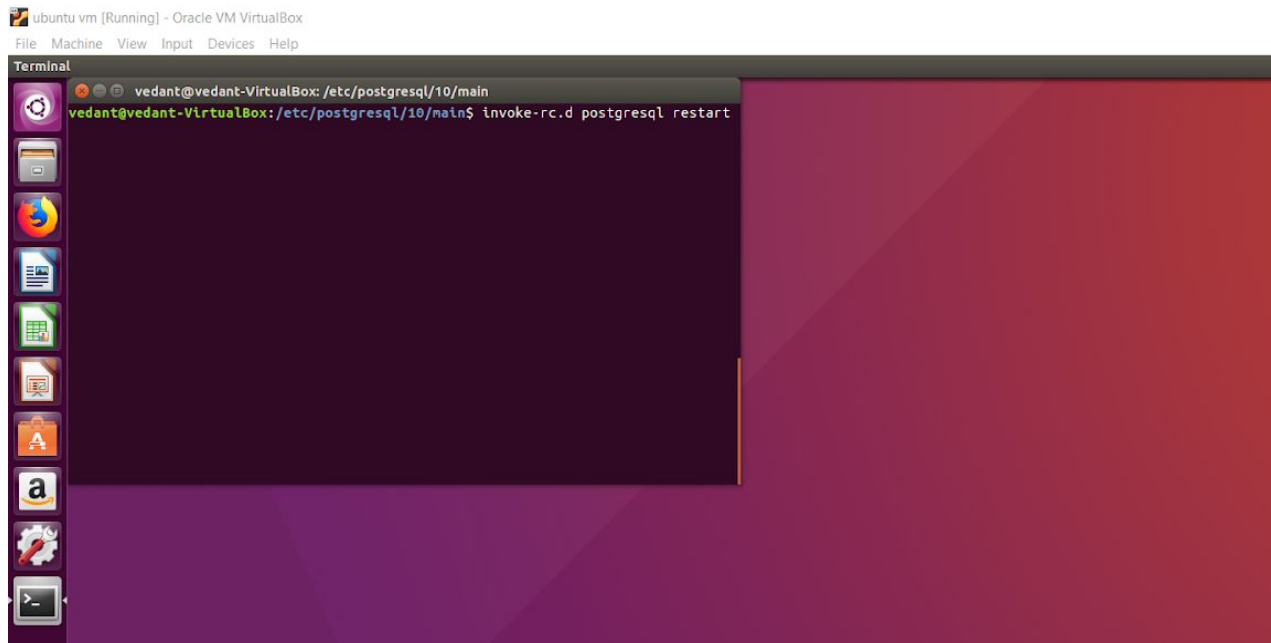
-Slide down and check the network configuration settings ,edit and then configure using the command `sudo vi postgresql.conf` as shown below.

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- Then restart using the command `invoke-rc.d postgresql restart` as shown below.



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Follow the same type of connection settings for windows directory: C:/"Program Files"/PostgreSQL/10/data.

**Error**- If an error occurs in transfer of data due to poor connectivity or any other reason, it shows error and terminates. You need to do the transfer again.

**Future Scope** - Gradual update.