

↳ Instalación de : 'postgresql' :

```
# systemctl enable --now firewalld.service
# firewall-cmd --permanent --add-service=postgresql
# firewall-cmd --reload

# yum update -y
# yum install epel-release centos-release-scl -y
# yum update -y
# yum install rh-python36 git lsof gcc wget nodejs-less libxslt-devel bzip2-
devel openldap-devel libjpeg-devel freetype-devel -y

# wget https://yum.postgresql.org/11/redhat/rhel-7-x86_64/pgdg-centos11-11-
2.noarch.rpm
# yum install pgdg-centos11-11-2.noarch.rpm -y
# rm pgdg-centos11-11-2.noarch.rpm --force
# yum update -y

# yum install postgresql11-server.x86_64 postgresql11-contrib.x86_64
postgresql11-devel.x86_64 -y
```

↳ Configuración de : 'postgresql' y clonado de 'odoo' :

```
[root@srv1 ~]# firewall-cmd --permanent --add-port={5432,8069,8070}/tcp
[root@srv1 ~]# firewall-cmd --permanent --add-port=8072/tcp
[root@srv1 ~]# firewall-cmd --reload
[root@srv1 ~]# firewall-cmd --list-ports
123/udp 6996-7800/tcp 8069/tcp 8070/tcp 8071/tcp 5432/tcp 8072/tcp
[root@srv1 ~]# firewall-cmd --list-services
ssh dhcpv6-client ntp postgresql

[root@srv1 ~]# mkdir /odoo
[root@srv1 ~]# useradd -U -r -d /odoo -s /bin/bash odoo
[root@srv1 ~]# chown odoo:odoo -R /odoo
[root@srv1 ~]# su - odoo
Last login: Tue Apr 16 18:25:41 CEST 2019 on pts/1
-bash-4.2$ pwd
/odoo
-bash-4.2$ git clone https://www.github.com/odoo/odoo --depth 1 --branch 12.0 odoo12
-bash-4.2$ ls
odoo12
-bash-4.2$ mkdir /odoo/odoo12/{8069,8070}/
-bash-4.2$ ls /odoo/odoo12/
8069 8070 addons CONTRIBUTING.md COPYRIGHT debian doc LICENSE MANIFEST.in
odoo odoo-bin README.md requirements.txt setup setup.cfg setup.py
-bash-4.2$ exit
logout

[root@srv1 ~]# mkdir /pgsql/data/ -p
[root@srv1 ~]# chmod 0750 /pgsql/data/
```

```
[root@srv1 ~]# chown postgres:postgres -R /pgsql/data/

[root@srv1 ~]# vim /usr/lib/systemd/system/postgresql-11.service
...
Environment=PGDATA=/pgsql/data/
...

[root@srv1 ~]# systemctl daemon-reload

[root@srv1 ~]# su - postgres
Last login: Thu Apr 11 12:17:40 CEST 2019 on pts/0
-bash-4.2$ /usr/pgsql-11/bin/initdb -D /pgsql/data/
-bash-4.2$ cd /pgsql/data/
-bash-4.2$ vim /pgsql/data/pg_hba.conf
...
host all all 192.168.10.0/24 trust
...
-bash-4.2$ vim /pgsql/data/postgresql.conf
...
listen_addresses = '*'
port = 5432
log_directory = '/var/log/postgresql-11/'
...
-bash-4.2$
-bash-4.2$ exit

[root@srv1 ~]# mkdir -p /var/log/postgresql-11/
[root@srv1 ~]# chown postgres:postgres -R /var/log/postgresql-11/

[root@srv1 ~]# systemctl enable --now postgresql-11.service
Created symlink from /etc/systemd/system/multi-user.target.wants/postgresql-11.service to
/usr/lib/systemd/system/postgresql-11.service.
[root@srv1 ~]# cp /etc/systemd/system/multi-user.target.wants/postgresql-11.service
/etc/systemd/system/postgresql-11.service
[root@srv1 ~]# vim /etc/systemd/system/postgresql-11.service
...
# include /usr/lib/systemd/system/postgresql-11.service
Environment=PGDATA=/pgsql/data/
...

[root@srv1 ~]# systemctl daemon-reload
[root@srv1 ~]# systemctl restart postgresql-11.service
[root@srv1 ~]# systemctl status postgresql-11.service
[root@srv1 ~]# systemctl status postgresql-11.service
● postgresql-11.service - PostgreSQL 11 database server
   Loaded: loaded (/etc/systemd/system/postgresql-11.service; enabled; vendor preset:
disabled)
   Stopped: failed (Result: bad; vendor preset: disabled)
```

```
...
[root@srv1 ~]# netstat -lntp
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
...
tcp      0      0 192.168.10.151:5432    0.0.0.0:*               LISTEN      8505/postmaster
...
```

```
[root@srv1 ~]# su - postgres -c "createuser -s odoo -p 5432"
```

```
[root@srv1 ~]# psql -h 192.168.10.151 -U postgres -p 5432
```

→ o tambien:

```
[root@srv1 ~]# su - postgres -c "psql -h 192.168.10.151 -U postgres -p 5432"
```

```
psql (11.2)
Type "help" for help.
```

```
postgres=# \du
```

Role name	List of roles Attributes	Member of
odoo	Superuser, Create role, Create DB	{}
postgres	Superuser, Create role, Create DB, Replication, Bypass RLS	{}

↘ Instalación de 'odoo12' ==> 8069 / 8070 :

```
[root@srv1 ~]# yum install https://downloads.wkhtmltopdf.org/0.12/0.12.5/wkhtmltox-0.12.5-1.centos7.x86\_64.rpm -y
```

```
[root@srv1 ~]# npm install -g less less-plugin-clean-css //Para Compatibilidad odoo10//
```

↘ Instancia 01 → instancia-test 01 8069.cfg

```
[root@srv1 ~]# su - odoo
```

```
-bash-4.2$ ls
```

```
odoo12
```

```
-bash-4.2$ cd odoo12/8069/
```

```
-bash-4.2$ scl enable rh-python36 bash
```

```
bash-4.2$ python3.6 -m venv odoo12_8069-venv
```

```
bash-4.2$ source odoo12_8069-venv/bin/activate
```

```
(odoo12_8069-venv) bash-4.2$ pip install --upgrade pip
```

```
(odoo12_8069-venv) bash-4.2$ pip3.6 install wheel num2words phonenumbers pycopg2-binary
```

```
watchdog xlwt phonenumbers
```

```
(odoo12_8069-venv) bash-4.2$ python --version
```

```
Python 3.6.3
```

```
(odoo12_8069-venv) bash-4.2$ which python
```

```
/odoo/odoo12/8069/odoo12_8069-venv/bin/python
```

```
(odoo12_8069-venv) bash-4.2$ pip3.6 install -r /odoo/odoo12/requirements.txt
(odoo12_8069-venv) bash-4.2$ createdb test_01_8069 -p 5432
```

→ **Generamos Fichero de Configuración** → **instancia-test_01_8069.cfg** :

```
(odoo12_8069-venv) bash-4.2$ python3.6 /odoo/odoo12/odoo-bin -d test_01_8069 --addons-
path=/odoo/odoo12/addons/ -p 8069 --save -c instancia-test_01_8069.cfg -i base --stop-after-
init --db_port=5432 --db_host=192.168.10.151 --workers=0 --db-filter=^test_01_8069$ --http-
port=8069
```

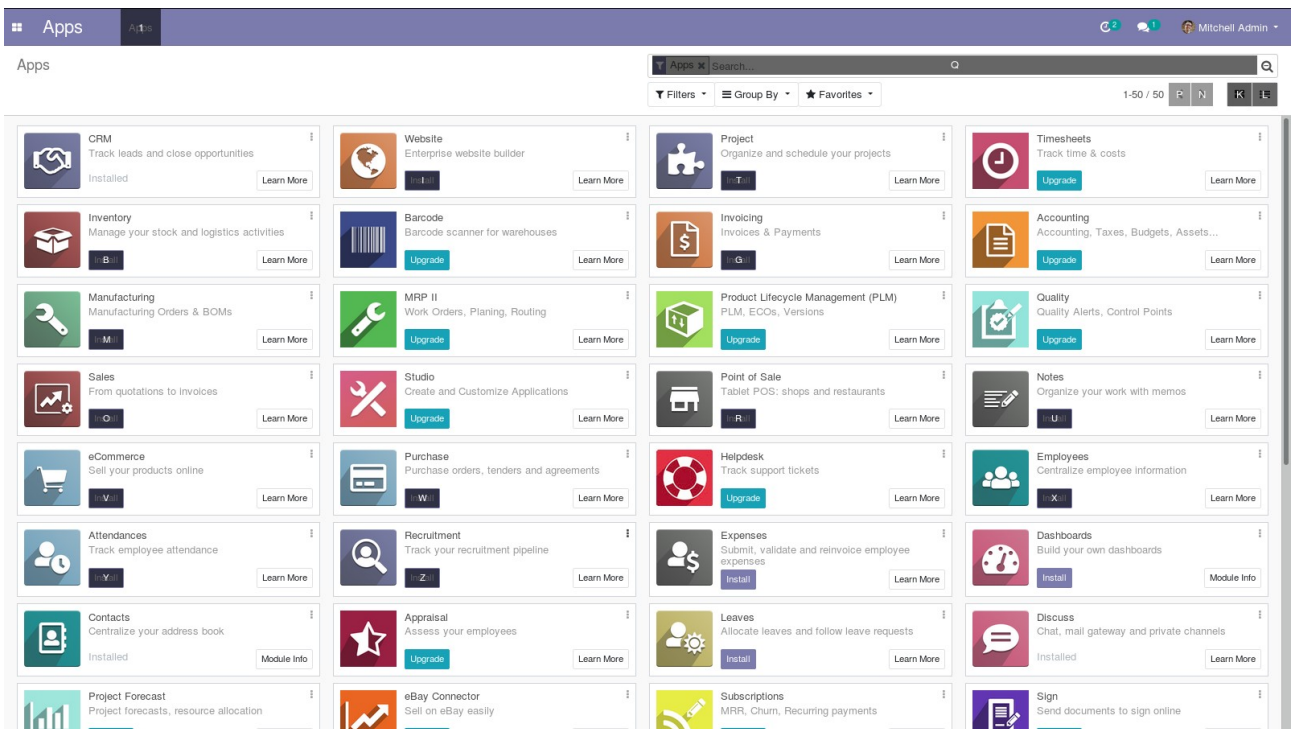
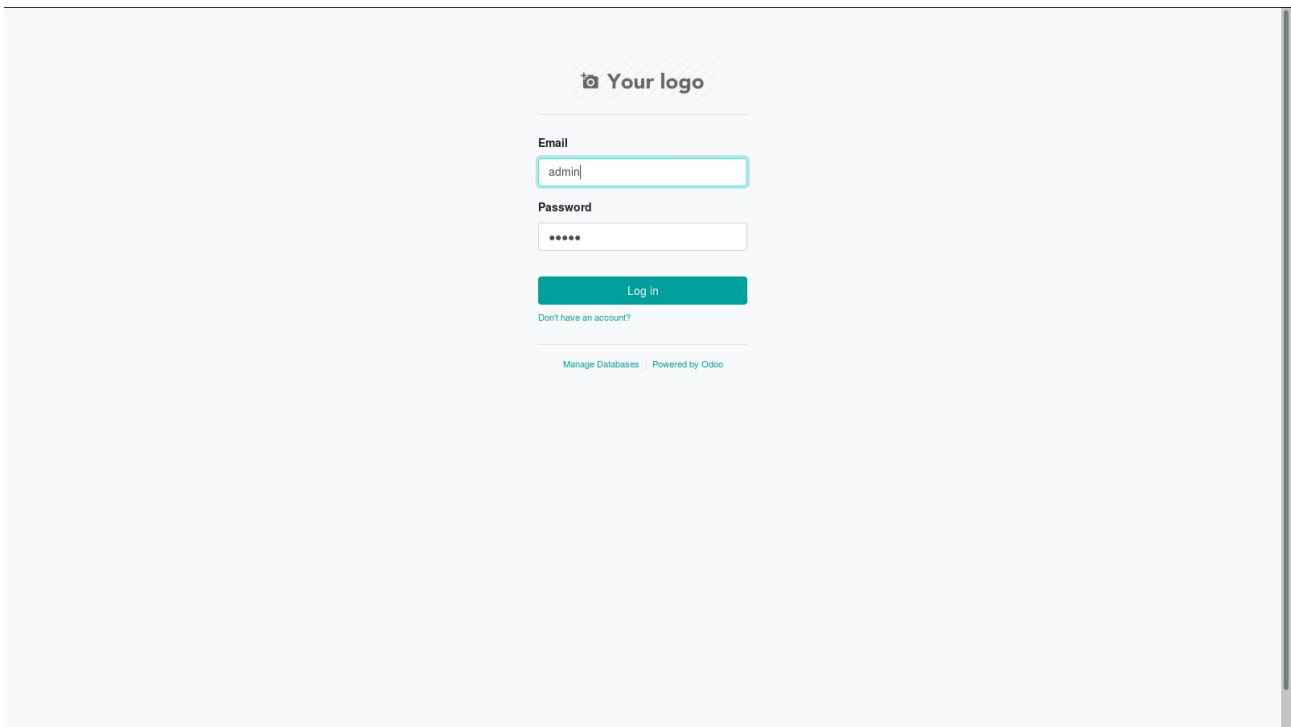
```
(odoo12_8069_5432-venv) bash-4.2$ ls
```

```
instancia-test_01_8069.cfg odoo12_8069-venv // 'Buena práctica' que el fichero de
configuración .cfg se situe dentro del entorno
virtual → odoo12_8069-venv -NO AQUÍ- //
```

→ **Aplicamos Fichero de Configuración** → **instancia-test_01_8069.cfg** :

```
(odoo12_8069-venv) bash-4.2$ python3.6 /odoo/odoo12/odoo-bin -c instancia-test_01_8069.cfg
2019-04-17 11:31:09,616 12158 INFO ? odoo: Odoo version 12.0
2019-04-17 11:31:09,616 12158 INFO ? odoo: Using configuration file at
/odoo/odoo12/8069/instancia-test_01_8069.cfg
2019-04-17 11:31:09,616 12158 INFO ? odoo: addons paths:
['/odoo/.local/share/Odoo/addons/12.0', '/odoo/odoo12/addons', '/odoo/odoo12/odoo/addons']
2019-04-17 11:31:09,617 12158 INFO ? odoo: database: default@192.168.10.151:5432
2019-04-17 11:31:09,726 12158 INFO ? odoo.addons.base.models.ir_actions_report: Will use the
Wkhtmltopdf binary at /usr/local/bin/wkhtmltopdf
2019-04-17 11:31:09,867 12158 INFO ? odoo.service.server: HTTP service (werkzeug) running on
srv1.enermol.lan:8069
2019-04-17 11:31:09,880 12158 INFO test_01_8069 odoo.modules.loading: loading 1 modules...
2019-04-17 11:31:09,902 12158 INFO test_01_8069 odoo.modules.loading: 1 modules loaded in
0.02s, 0 queries
2019-04-17 11:31:09,922 12158 INFO test_01_8069 odoo.modules.loading: loading 29 modules...
2019-04-17 11:31:10,227 12158 INFO test_01_8069 odoo.modules.loading: 29 modules loaded in
0.30s, 0 queries
2019-04-17 11:31:10,492 12158 INFO test_01_8069 odoo.modules.loading: Modules loaded.
```

<http://192.168.10.151:8069/>



<CTRL>c

```
(odoo12_8069-venv) bash-4.2$ deactivate && exit
exit
-bash-4.2$ exit
logout
```

↳ Instancia 02 → instancia-test_02_8070.cfg

```
[root@srv1 ~]# su - odoo
Last login: Fri Apr 12 11:30:36 CEST 2019 on pts/0
-bash-4.2$ pwd
/odoo
-bash-4.2$ ls
odoo12
-bash-4.2$ cd odoo12/8070/
-bash-4.2$ scl enable rh-python36 bash
bash-4.2$ python3.6 -m venv odoo12_8070-venv
bash-4.2$ source odoo12_8070-venv/bin/activate
(odoo12_8070-venv) bash-4.2$ pip install --upgrade pip
(odoo12_8070-venv) bash-4.2$ pip3.6 install wheel num2words phonenumbers pycogp2-binary
watchdog xlwt phonenumbers
(odoo12_8070-venv) bash-4.2$ pip3.6 install -r /odoo/odoo12/requirements.txt
(odoo12_8070-venv) bash-4.2$ createdb test_02_8070 -p 5432
```

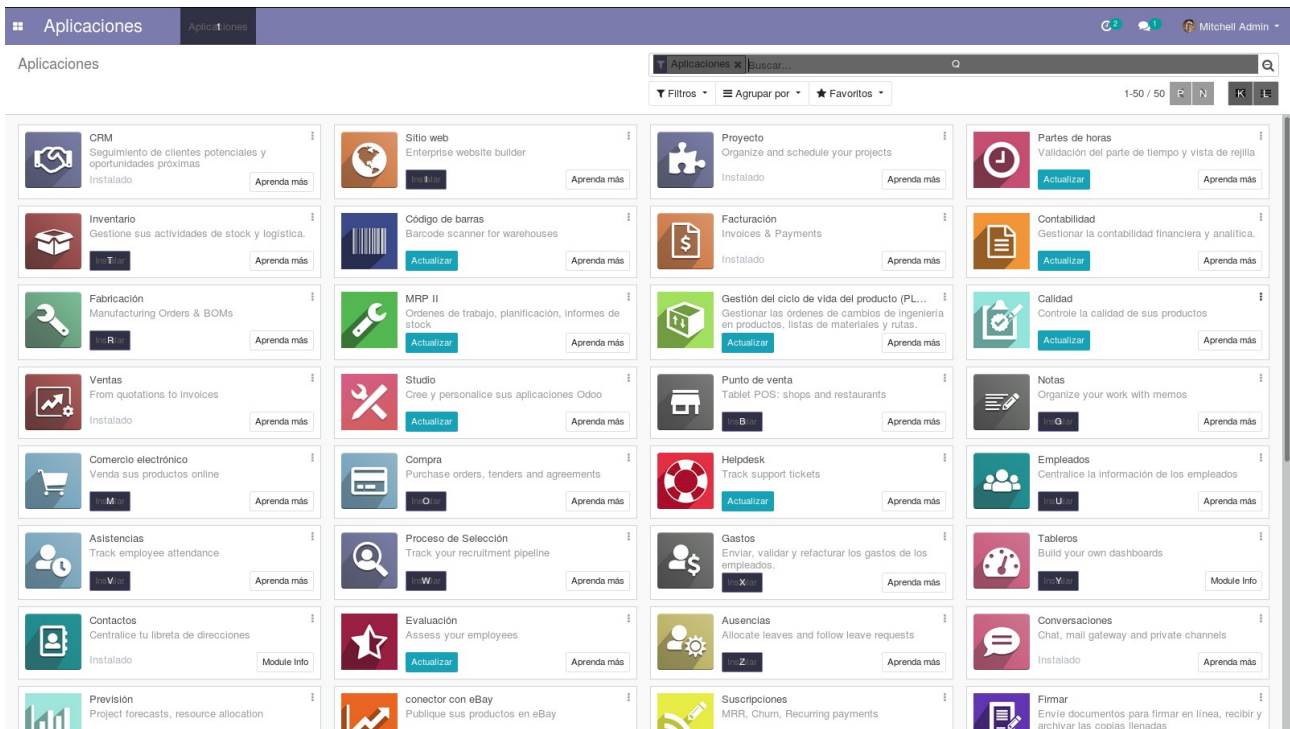
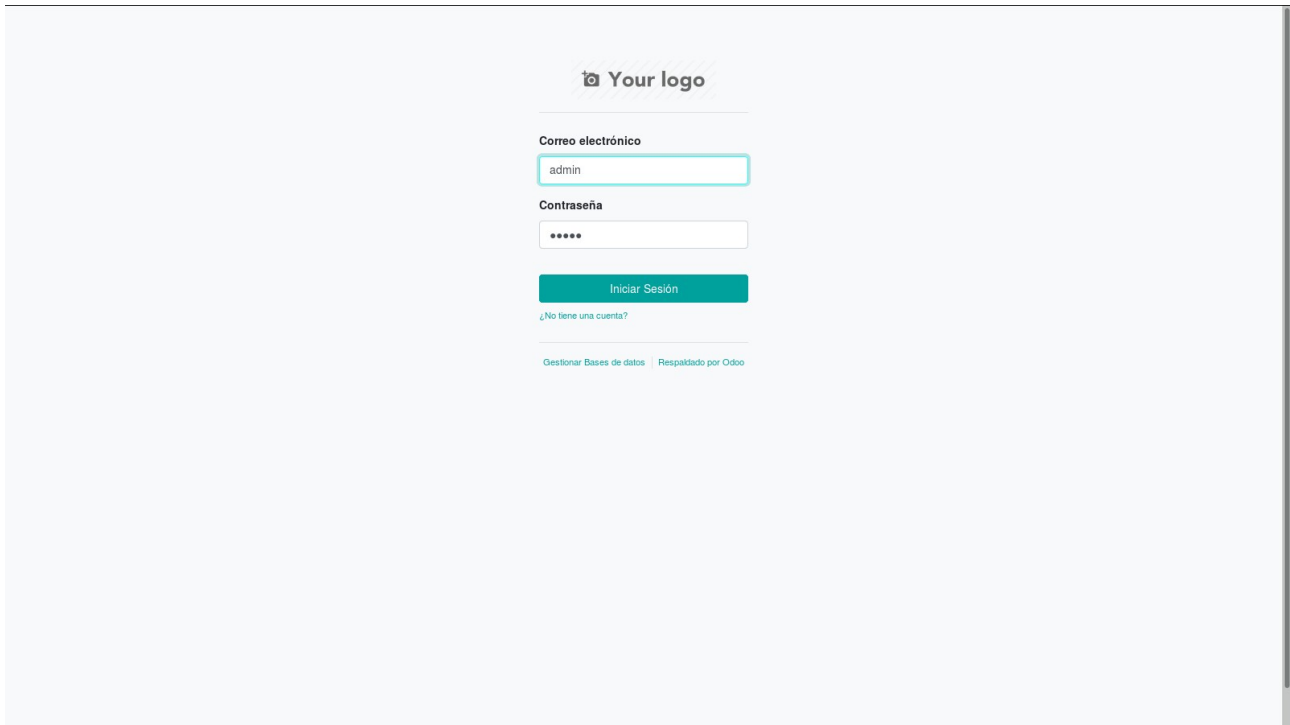
→ Generamos Fichero de Configuración → instancia-test_02_8070.cfg :

```
(odoo12_8070-venv) bash-4.2$ python3.6 /odoo/odoo12/odoo-bin -d test_02_8070 --addons-
path=/odoo/odoo12/addons/ -p 8070 --save -c instancia-test_02_8070.cfg -i base --stop-after-
init --db_port=5432 --db_host=192.168.10.151 --workers=0 --db-filter=test_02_8070 --http-
port=8070
(odoo12_8070-venv) bash-4.2$ ls
instancia-test_02_8070.cfg odoo12_8070-venv // 'Buena práctica' que el fichero de
configuración .cfg se situe dentro del entorno
virtual → odoo12_8070-venv -NO AQUÍ- //
```

→ Aplicamos Fichero de Configuración → instancia-test_02_8070.cfg :

```
(odoo12_8070-venv) bash-4.2$ python3.6 /odoo/odoo12/odoo-bin -c instancia-test_02_8070.cfg
2019-04-17 11:40:13,643 12293 INFO ? odoo: Odoo version 12.0
2019-04-17 11:40:13,644 12293 INFO ? odoo: Using configuration file at
/odoo/odoo12/8070/instancia-test_02_8070.cfg
2019-04-17 11:40:13,644 12293 INFO ? odoo: addons paths:
['/odoo/.local/share/Odoo/addons/12.0', '/odoo/odoo12/addons', '/odoo/odoo12/odoo/addons']
2019-04-17 11:40:13,644 12293 INFO ? odoo: database: default@192.168.10.151:5432
2019-04-17 11:40:13,752 12293 INFO ? odoo.addons.base.models.ir_actions_report: Will use the
Wkhtmltopdf binary at /usr/local/bin/wkhtmltopdf
2019-04-17 11:40:13,909 12293 INFO ? odoo.service.server: HTTP service (werkzeug) running on
srv1.enermol.lan:8070
2019-04-17 11:40:13,923 12293 INFO test_02_8070 odoo.modules.loading: loading 1 modules...
2019-04-17 11:40:13,944 12293 INFO test_02_8070 odoo.modules.loading: 1 modules loaded in
0.02s, 0 queries
2019-04-17 11:40:13,966 12293 INFO test_02_8070 odoo.modules.loading: loading 40 modules...
2019-04-17 11:40:14,339 12293 INFO test_02_8070 odoo.modules.loading: 40 modules loaded in
0.37s, 0 queries
2019-04-17 11:40:14,790 12293 INFO test_02_8070 odoo.modules.loading: Modules loaded.
```

<http://192.168.10.151:8070>



<CTRL>c

```
(odoo12_8070-venv) bash-4.2$ deactivate && exit
exit
-bash-4.2$ exit
logout
```

→ **Odoo como servicio** → [instancia-test_01_8069.cfg](#) :

```
[root@srv1 ~]# vim /etc/systemd/system/odoo12_8069.service
[Unit]
Description=odoo12 postgres: 5432 odoo: 8069
Requires=postgresql-11.service
After=network.target postgresql-11.service

[Service]
Type=simple
SyslogIdentifier=odoo12_8069
PermissionsStartOnly=true
User=odoo
Group=odoo

ExecStart=/usr/bin/scl enable rh-python36 --
/odoo/odoo12/8069/odoo12_8069-venv/bin/python3 /odoo/odoo12/odoo-bin -c
/odoo/odoo12/8069/instancia-test_01_8069.cfg

StandardOutput=journal+console

[Install]
WantedBy=multi-user.target
```

→ **Odoo como servicio** → [instancia-test_02_8070.cfg](#) :

```
[root@srv1 ~]# vim /etc/systemd/system/odoo12_8070.service

[Unit]
Description=odoo12 postgres: 5432 odoo: 8070
Requires=postgresql-11.service
After=network.target postgresql-11.service

[Service]
Type=simple
SyslogIdentifier=odoo12_8070
PermissionsStartOnly=true
User=odoo
Group=odoo
```



```
ExecStart=/usr/bin/scl enable rh-python36 --  
/odoo/odoo12/8070/odoo12_8070-venv/bin/python3 /odoo/odoo12/odoo-bin -c  
/odoo/odoo12/8070/instancia-test_02_8070.cfg
```

```
StandardOutput=journal+console
```

```
[Install]
```

```
WantedBy=multi-user.target
```

```
[root@srv1 ~]# systemctl daemon-reload
```

```
[root@srv1 ~]# mkdir /var/log/odoo12_8069/
```

```
[root@srv1 ~]# mkdir /var/log/odoo12_8070/
```

```
[root@srv1 ~]# chown odoo:odoo -R /var/log/odoo12_8069/
```

```
[root@srv1 ~]# chown odoo:odoo -R /var/log/odoo12_8070/
```

```
[root@srv1 ~]# systemctl start odoo12_8069.service
```

```
[root@srv1 ~]# systemctl start odoo12_8070.service
```

↳ **Ejemplo de fichero de Configuración** → [instancia-test_01_8069.cfg](#):

```
[root@srv1 ~]# cat /odoo/odoo12/8069/instancia-test_01_8069.cfg
```

```
[options]
```

```
addons_path = /odoo/odoo12/addons
```

```
admin_passwd = $pbkdf2-sha512$25000$dk8JEY3wVso5p9S6V8rZ2w$vn3c17aiGR64s4DDRBD/  
xg9NyNoczaF88ycghuUHEYodwADOKPsp38MNPBsQxUyFBoF9VuvawDxn4RXJOMAsIg
```

```
csv_internal_sep = ,
```

```
data_dir = /odoo/.local/share/Odoo
```

```
db_host = 192.168.10.151
```

```
db_maxconn = 64
```

```
db_name = test_01_8069
```

```
db_password = False
```

```
db_port = 5432
```

```
db_sslmode = prefer
```

```
db_template = template0
```

```
db_user = False
```

```
dbfilter = .* ↳ Recomendable para database 'single' aunque mejor → '= db_name'
```

```
demo = {}
```

```
email_from = False
```

```
geoip_database = /usr/share/GeoIP/GeoLite2-City.mmdb
```

```
http_enable = True
```

```
http_interface =
```

```
http_port = 8069
```

```
import_partial =
```

```
limit_memory_hard = 2684354560
```

```
limit_memory_soft = 2147483648
```

```
limit_request = 8192
limit_time_cpu = 60
limit_time_real = 120
limit_time_real_cron = -1
list_db = True
log_db = False
log_db_level = warning
log_handler = :INFO
log_level = info
logfile = /var/log/odoo12_8069/odoo12_8069.log
logrotate = False
longpolling_port = 8072
max_cron_threads = 2
osv_memory_age_limit = 1.0
osv_memory_count_limit = False
pg_path = None
pidfile = False
proxy_mode = False
reportgz = False
server_wide_modules = base,web
smtp_password = False
smtp_port = 25
smtp_server = localhost
smtp_ssl = False
smtp_user = False
syslog = False
test_enable = False
test_file = False
test_tags = None
translate_modules = ['all']
unaccent = False
without_demo = False
workers = 0
```

```
[root@srv1 ~]# systemctl enable postgresql-11.service odoo12_8069.service
odoo12_8070.service
[root@srv1 ~]# systemctl restart postgresql-11.service odoo12_8069.service
odoo12_8070.service
[root@srv1 ~]# systemctl is-active postgresql-11.service odoo12_8069.service
odoo12_8070.service
active
active
active
```

[↘ Instanciado Múltiple de servicios 'systemd' ↘ Pacemaker :](#)

```
[root@srv1 ~]# systemctl disable postgresql-11.service odoo12_8069.service
```

odoo12_8070.service

```
[root@srv1 ~]# vim /etc/systemd/system/postgresql-11.service
```

```
...
```

```
Requires=odoo12_8069.service
```

```
Requires=odoo12_8070.service
```

```
...
```

```
[root@srv1 ~]# vim /etc/systemd/system/odoo12_8069.service
```

```
...
```

```
# Mejor deshabilitar para 'Pacemaker'.
```

```
# Requires=postgresql-11.service
```

```
After=network.target postgresql-11.service
```

```
...
```

```
[root@srv1 ~]# vim /etc/systemd/system/odoo12_8070.service
```

```
...
```

```
# Mejor deshabilitar para 'Pacemaker'.
```

```
# Requires=postgresql-11.service
```

```
After=network.target postgresql-11.service
```

```
...
```

```
[root@srv1 ~]# systemctl daemon-reload
```

```
[root@srv1 ~]# systemctl stop postgresql-11.service odoo12_8069.service odoo12_8070.service
```

```
[root@srv1 ~]# systemctl is-active postgresql-11.service odoo12_8069.service
```

```
odoo12_8070.service
```

```
unknown
```

```
unknown
```

```
unknown
```

```
[root@srv1 ~]# systemctl start postgresql-11.service
```

```
[root@srv1 ~]# systemctl is-active postgresql-11.service odoo12_8069.service
```

```
odoo12_8070.service
```

```
active
```

```
active
```

```
active
```

```
[root@srv1 ~]# systemctl stop postgresql-11.service
```

```
[root@srv1 ~]# systemctl is-active postgresql-11.service odoo12_8069.service
```

```
odoo12_8070.service
```

```
unknown
```

```
unknown
```

```
unknown
```

```
[root@srv1 ~]# systemctl start odoo12_8069.service
```

```
[root@srv1 ~]# systemctl is-active postgresql-11.service odoo12_8069.service
```

```
odoo12_8070.service
```

```
active
```

active

active

```
[root@srv1 ~]# systemctl list-dependencies postgresql-11.service
```

```
postgresql-11.service
```

```
● └─odoo12_8069.service
```

```
● └─odoo12_8070.service
```

```
● └─system.slice
```

```
● └─basic.target
```

```
● └─rhel-dmesg.service
```

```
● └─selinux-policy-migrate-local-changes@targeted.service
```

```
● └─paths.target
```

```
...
```

REFERENCIAS:

<https://www.odoo.com/documentation/10.0/reference/cmdline.html>

https://odoo-development.readthedocs.io/en/latest/admin/about_longpolling.html

<https://www.stevenrombauts.be/2019/01/run-multiple-instances-of-the-same-systemd-unit/>

<http://alesnosek.com/blog/2016/12/04/controlling-a-multi-service-application-with-systemd/>

<https://www.linode.com/docs/quick-answers/linux-essentials/introduction-to-systemctl/>

https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/7/html/system_administrators_guide/sect-managing_services_with_systemd-targets

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