

# Installation Odoo13 on CentOS8 with IPV6 and Let's Encrypt



Hauseigenes Apt-Repo: <https://apt.iteas.at>    

In this tutorial, we will learn how to install and configure Odoo 13 with Nginx as a reverse proxy on CentOS 8 server with IPV4 and IPV6.

## Requirements

- A Server running CentOS 8 with minimum 2 GB of RAM.
- A valid domain name pointed to your server IP. In this tutorial, we will use example.com domain..
- A root password is configured on the server.

## Getting Started

First, update the system and install EPEL repository with the following command:

```
dnf update
dnf install epel-release
```

Next, you will need to install some tools and dependencies needed to build the Odoo on your system. You can install all of them with the following command:

```
dnf install python36 python36-devel git gcc wget nodejs libxslt-devel bzip2-
devel openldap-devel libjpeg-devel freetype-devel
```

Once all the packages are installed, you can proceed to the next step.

## Create Odoo User

Next, you will need to create a new system user with name odoo and home directory /opt/odoo using the following command:

```
useradd -m -U -r -d /opt/odoo -s /bin/bash odoo
```

## Install and Configure PostgreSQL

Odoo uses PostgreSQL to store their data. So you will need to install PostgreSQL on your server. You can install it with the following command:

```
dnf install postgresql postgresql-server postgresql-contrib
```

Once installed, initialize the database with the following command:

```
/usr/bin/postgresql-setup initdb
```

You should get the following output:

```
* Initializing database in '/var/lib/pgsql/data'  
* Initialized, logs are in /var/lib/pgsql/initdb_postgresql.log
```

Next, start the PostgreSQL service and enable it to start after system reboot with the following command:

```
systemctl start postgresql && systemctl enable postgresql && systemctl status postgresql
```

Next, you will need to create a new PostgreSQL user with the same name as system user as shown below:

```
su - postgres -c "createuser -s odoo"
```

## Install Wkhtmltopdf

Next, you will need to install wkhtmltopdf tool in your system so that Odoo can print PDF reports. You can install it with the following command:

```
wget  
https://downloads.wkhtmltopdf.org/0.12/0.12.5/wkhtmltox-0.12.5-1.centos7.x86_64.rpm  
dnf localinstall wkhtmltox-0.12.5-1.centos7.x86_64.rpm  
dnf install compat-openssl10 libpng15
```

## Install and Configure Odoo 13

First, switch to the Odoo user with the following command:

```
su - odoo
```

Next, download the latest version of the Odoo 13 from the Git repository using the git command:

```
git clone https://www.github.com/odoo/odoo --depth 1 --branch 13.0  
/opt/odoo/odoo13
```

Next, create a new virtual environment for Odoo 13 instance with the following command:

```
cd /opt/odoo && python3 -m venv odoo13-venv
```

Next, activate the virtual environment with the following command:

```
source odoo13-venv/bin/activate
```

You should get the following output:

```
(odoo13-venv) [odoo@centos8 ~]$
```

Next, install all the required Python modules for Odoo 13 with the following command:

```
pip3 install -r odoo13/requirements.txt
```

Once all the required modules are installed, deactivate the virtual environment and exit from the Odoo user with the following command:

```
deactivate  
exit
```

Next, create a new directory to store the Odoo custom modules and Odoo logs:

```
mkdir /opt/odoo/odoo13-custom-addons && mkdir /var/log/odoo13 && touch  
/var/log/odoo13/odoo.log
```

Next, change the ownership of both directory to the odoo user with the following command:

```
chown -R odoo:odoo /opt/odoo/odoo13-custom-addons && chown -R odoo:odoo  
/var/log/odoo13/
```

Next, create a new configuration file for Odoo 13 using the following command:

```
nano /etc/odoo.conf
```

Add the following lines:

```
[options]  
admin_passwd = admin@123  
db_host = False  
db_port = False
```

```
db_user = odoo
db_password = False
xmlrpc_port = 8069
http_interface = ::
logfile = /var/log/odoo13/odoo.log
logrotate = True
addons_path = /opt/odoo/odoo13/addons,/opt/odoo/odoo13-custom-addons
```

## Create a Systemd Service file for Odoo 13

Next, you will need to create a new systemd unit file for Odoo 13 to manage the Odoo service. You can create it with the following command:

```
nano /etc/systemd/system/odoo13.service
```

Add the following lines:

```
[Unit]
Description=Odoo13
#Requires=postgresql-10.6.service
#After=network.target postgresql-10.6.service
[Service]
Type=simple
SyslogIdentifier=odoo13
PermissionsStartOnly=true
User=odoo
Group=odoo
ExecStart=/opt/odoo/odoo13-venv/bin/python3 /opt/odoo/odoo13/odoo-bin -c
/etc/odoo.conf
StandardOutput=journal+console
[Install]
WantedBy=multi-user.target
```

Save and close the file. Then, reload the systemd daemon, start Odoo, enable it at autostart and see the status with the following command:

```
systemctl daemon-reload && systemctl start odoo13 && systemctl enable odoo13
&& systemctl status odoo13
```

You should get the following output:

```
● odoo13.service - Odoo13
   Loaded: loaded (/etc/systemd/system/odoo13.service; enabled; vendor
  preset: disabled)
   Active: active (running) since Fri 2020-01-31 23:47:50 CET; 1 day 12h ago
 Main PID: 952 (python3)
    Tasks: 6 (limit: 24843)
   Memory: 378.0M
```

```
CGroup: /system.slice/odoo13.service
└─952 /opt/odoo/odoo13-venv/bin/python3 /opt/odoo/odoo13/odoo-bin
-c /etc/odoo.conf
```

By default, Odoo listens on port 8069. You can check it with the following command:

```
netstat -plntu | grep 8069
```

You should see the following output:

```
tcp6      0      0 :::8069          :::*              LISTEN
12787/python3
```

## Configure Nginx as a Reverse Proxy with Let's Encrypt for Odoo 13

Next, you will need to install and configure the Nginx as a reverse proxy for Odoo 13 instance. First, install the Nginx web server with the following command:

```
dnf install nginx mod_ssl
```

Once installed, create a new virtual host configuration file with the following command:

```
nano /etc/nginx/conf.d/odoo13.conf
```

```
upstream odoo {
    server [::1]:8069;
}

server {
    listen 80;
    listen [::]:80;
    server_name foo.example.com;
    include /etc/nginx/snippets/letsencrypt.conf;
    return 301 https://$host$request_uri;

    access_log /var/log/nginx/odoo13.access.log;
    error_log /var/log/nginx/odoo13.error.log;
}

server {
    listen 443 ssl http2;
    listen [::]:443 ssl http2;
    server_name foo.example.com;

    ssl_certificate /etc/letsencrypt/live/foo.example.com/fullchain.pem;
    ssl_certificate_key /etc/letsencrypt/live/foo.example.com/privkey.pem;
    ssl_trusted_certificate /etc/letsencrypt/live/foo.example.com/chain.pem;
    include /etc/nginx/snippets/ssl.conf;
    include /etc/nginx/snippets/letsencrypt.conf;
```

```
        location / {
            proxy_set_header X-Forwarded-Host $host;
            proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
            proxy_set_header X-Forwarded-Proto $scheme;
            proxy_set_header X-Real-IP $remote_addr;

            proxy_redirect off;
            proxy_pass http://odoo;
        }

location ~* /web/static/ {
    proxy_cache_valid 200 90m;
    proxy_buffering on;
    expires 864000;
    proxy_pass http://odoo;
}

    gzip_types text/css text/less text/plain text/xml application/xml
application/json application/javascript;
    gzip on;
}
```

For the initial setup you must comment out allo SSL entries in this file. After that edit the file /etc/nginx/nginx.conf, and replace the file with this:

```
user nginx;
worker_processes auto;
error_log /var/log/nginx/error.log;
pid /run/nginx.pid;

include /usr/share/nginx/modules/*.conf;

events {
    worker_connections 1024;
}

http {
    log_format main '$remote_addr - $remote_user [$time_local] "$request" '
        '$status $body_bytes_sent "$http_referer" '
        '"$http_user_agent" "$http_x_forwarded_for"';

    access_log /var/log/nginx/access.log main;

    sendfile on;
    tcp_nopush on;
    tcp_nodelay on;
    keepalive_timeout 65;
    types_hash_max_size 2048;
```

```
include          /etc/nginx/mime.types;
default_type     application/octet-stream;

include /etc/nginx/conf.d/*.conf;

server {
    listen        80 default_server;
    listen        [::]:80 default_server;
    server_name   _;
    root          /var/lib/letsencrypt;
    #return 301 https://$host$request_uri;

    include /etc/nginx/default.d/*.conf;

    error_page 404 /404.html;
    error_page 500 502 503 504 /50x.html;
}
}
```

Save and close the file when you are finished. Then, start the Nginx service and enable it to start after system reboot with the following command:

```
systemctl start nginx && systemctl enable nginx && systemctl status nginx
```

You should see the following output:

```
● nginx.service - The nginx HTTP and reverse proxy server
  Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; vendor
  preset: disabled)
  Active: active (running) since Fri 2020-01-31 23:47:51 CET; 1 day 12h ago
  Process: 998 ExecStart=/usr/sbin/nginx (code=exited, status=0/SUCCESS)
  Process: 987 ExecStartPre=/usr/sbin/nginx -t (code=exited,
  status=0/SUCCESS)
  Process: 969 ExecStartPre=/usr/bin/rm -f /run/nginx.pid (code=exited,
  status=0/SUCCESS)
  Main PID: 1007 (nginx)
  Tasks: 9 (limit: 24843)
  Memory: 22.9M
  CGroup: /system.slice/nginx.service
          └─1007 nginx: master process /usr/sbin/nginx
             └─1008 nginx: worker process
                └─1009 nginx: worker process
                   └─1010 nginx: worker process
                      └─1011 nginx: worker process
                         └─1012 nginx: worker process
                            └─1013 nginx: worker process
                               └─1014 nginx: worker process
                                  └─1015 nginx: worker process
```

```
Jän 31 23:47:51 erp systemd[1]: Starting The nginx HTTP and reverse proxy
server...
```

```
Jän 31 23:47:51 erp nginx[987]: nginx: the configuration file
/etc/nginx/nginx.conf syntax is ok
Jän 31 23:47:51 erp nginx[987]: nginx: configuration file
/etc/nginx/nginx.conf test is successful
Jän 31 23:47:51 erp systemd[1]: Started The nginx HTTP and reverse proxy
server.
```

## Configure Firewall

If you are behind a real firewall, it is a good idea to disable the firewall completely.

```
systemctl stop firewalld && systemctl disable firewalld && systemctl mask --
now firewalld && firewall-cmd --state
```

By default, SELinux is enabled in CentOS 8. So you will need to allow HTTP through SELinux. You can allow it with the following command:

```
setsebool -P httpd_can_network_connect on
```

## Install and configure Let's Encrypt

```
cd /root
wget https://dl.eff.org/certbot-auto
mv certbot-auto /usr/local/bin/certbot-auto
chown root /usr/local/bin/certbot-auto
chmod 0755 /usr/local/bin/certbot-auto
/usr/local/bin/certbot-auto certonly --agree-tos --email foo@example.com --
webroot -w /var/lib/letsencrypt/ -d foo.example.com
```

After setup is finished, comment in all SSL entries again, and restart Nginx. `systemctl restart nginx` Now it is easy to create some cronjob weekly to renew the certificate from Let's Encrypt automatically.

```
crontab -e
```

```
@weekly root test -x /usr/local/bin/certbot-auto -a \! -d
/run/systemd/system && perl -e 'sleep int(rand(3600))' &&
/usr/local/bin/certbot-auto -q renew --renew-hook "systemctl reload nginx"
```

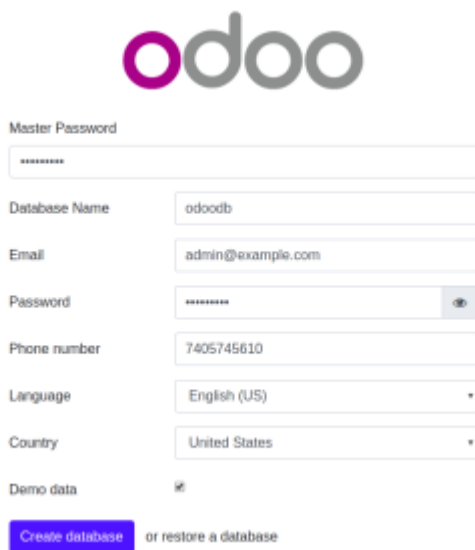
If you would like to test it you can do it with this simple command:

```
certbot-auto renew --dry-run
```

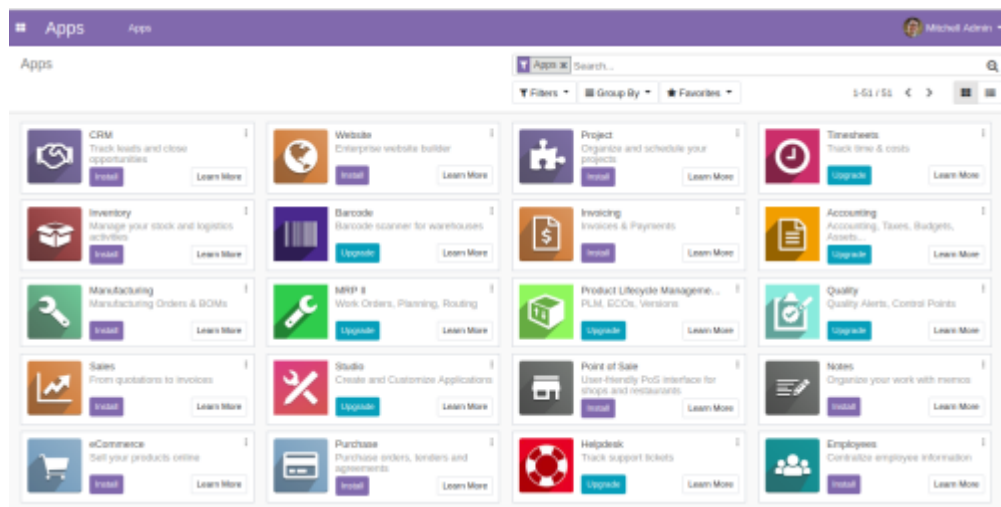


## Access Odoo 13 Web Interface

Now, Odoo 13 is installed and configured. It's time to access the Odoo 13 web interface. Open your web browser and type the URL <http://example.com>. You will be redirected to the following page:



Now, provide your Master Password, Database name, Email, Password, Country and click on the Create database button. You will be redirected to the Odoo 13 Administration page:



In the above tutorial, you learned how to install and configure Odoo 13 on CentOS 8 server. You also learned how to configure Nginx as a reverse proxy for Odoo 13. You can now customize your Odoo 13 instance as per your business needs.

## Update your Odoo over GIT

```
su - odoo
```

Next, download the latest version of the Odoo 13 from the Git repository using the git command:

```
cd /opt/odoo/odoo13
```

```
git pull
```

Next, create a new virtual environment for Odoo 13 instance with the following command:

```
cd /opt/odoo  
python3 -m venv odoo13-venv
```

Next, activate the virtual environment with the following command:

```
source odoo13-venv/bin/activate
```

You should get the following output:

```
(odoo13-venv) [odoo@centos8 ~]$
```

Next, update all the required Python modules for Odoo 13 with the following command:

```
pip3 install -r odoo13/requirements.txt
```

Once all the required modules are updated, deactivate the virtual environment and exit from the Odoo user with the following command:

```
deactivate  
exit
```

And last, restart Odoo.

## Some Source

Some Source is from here:

<https://www.howtoforge.com/tutorial/how-to-install-odoo-erp-13-on-centos-8>

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