DOCKER PROJECT : IIEC RISE TRAINING APRIL 2020

BY: BHANVI MENGHANI

DOCKER INTO OWNCLOUD

Tired of file sharing/sync/cloud services like iCloud and Dropbox? Maybe you want to have more control over your own assets. Why don't you run your own service using ownCloud?

This brief demo will guide you how to run your ownCloud on any server with Containers

Lets first grab some basics. About what is docker and own cloud

Docker

Docker Inc. was founded by Solomon Hykes and Sebastien Pahl .Docker is a set of platform as a service products that uses OS-level virtualization to deliver software in packages called containers. Containers are isolated from one another and bundle their own software, libraries and configuration files; they can communicate with each other through well-defined channels.

Own cloud

ownCloud is a self-hosted file sync and share server. It provides access to your data through a web interface, sync clients or WebDAV while providing a platform to view, sync and share across devices easily — all under your control.

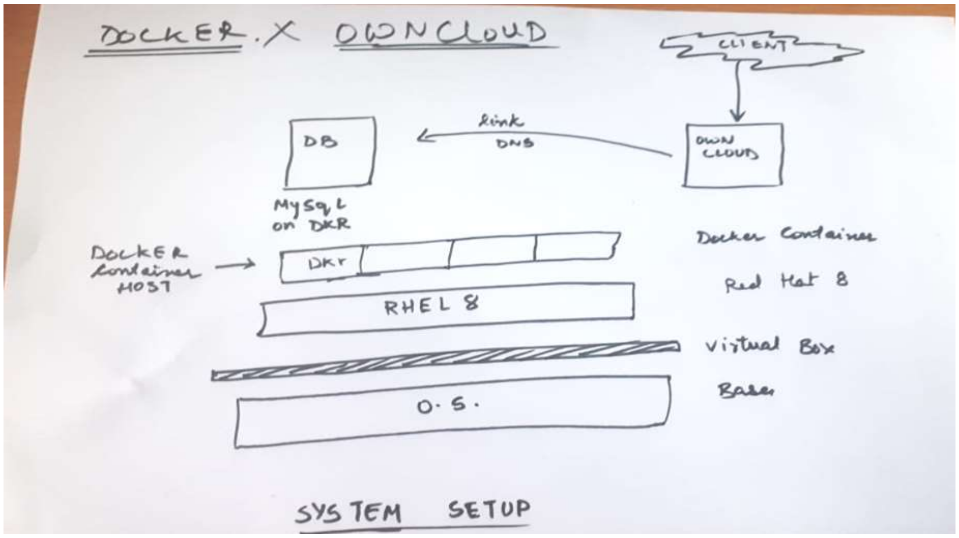
ownCloud’s open architecture is extensible via a simple but powerful API for applications and plugins and it works with any storage**.**

Set up for project

Following is the description of the set up I used for building the project:

1. Oracal Virtual Box
2. RedHat Linux RHEL8
3. Docker
4. Mysql
5. Owncloud

Side note: use Bridge Adapter in Networks if Running on Virtual Machine



Pre requistics / installation

1. Installing red hat : refer to the IIEC rise you tube vedios by vimal sir: https://www.youtube.com/watch?v=8Q83qs2MAVA&list=PLAi9X1uG6jZ2b1mUmrUcc_aEoc8tfss8e&index=3

2. Installing docker : refer to the IIEC rise you tube vedios by vimal sir: https://www.youtube.com/watch?v=NPgXHA41-YM&t=7617s

3. Yum configuration commands : https://www.youtube.com/watch?v=DPyohwkqvHo&list=PLAi9X1uG6jZ2b1mUmrUcc_aEoc8tfss8e&index=15

4. Setting docker compose:

   https://www.youtube.com/watch?v=3Kn6_b-1mK4&list=PLAi9X1uG6jZ30QGz7FZ55A27jPeY8EwkE

Environment setup commands:

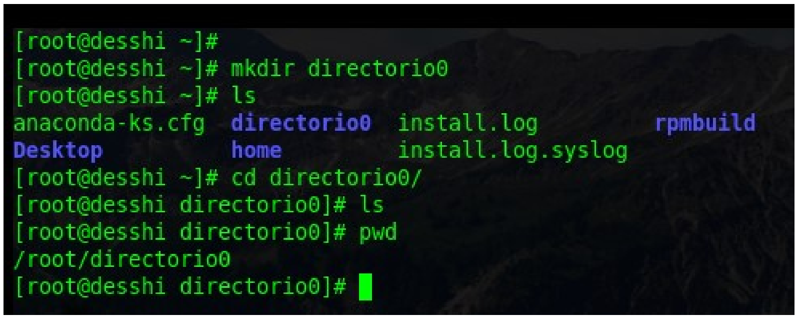
The following table explains the basic commands to make sure that we do not make any silly errors

SR NO.	REQUIRMENT	COMMAND
1.	To prevent any firewall intereptions	systemctl stop firewalld
2.	To connect to web server	systemctl start httpd
3.	To start the docker servvices	systemctl start docker
4.	To remove any previous containers	Docker rm <cont. id>

Project assembly :

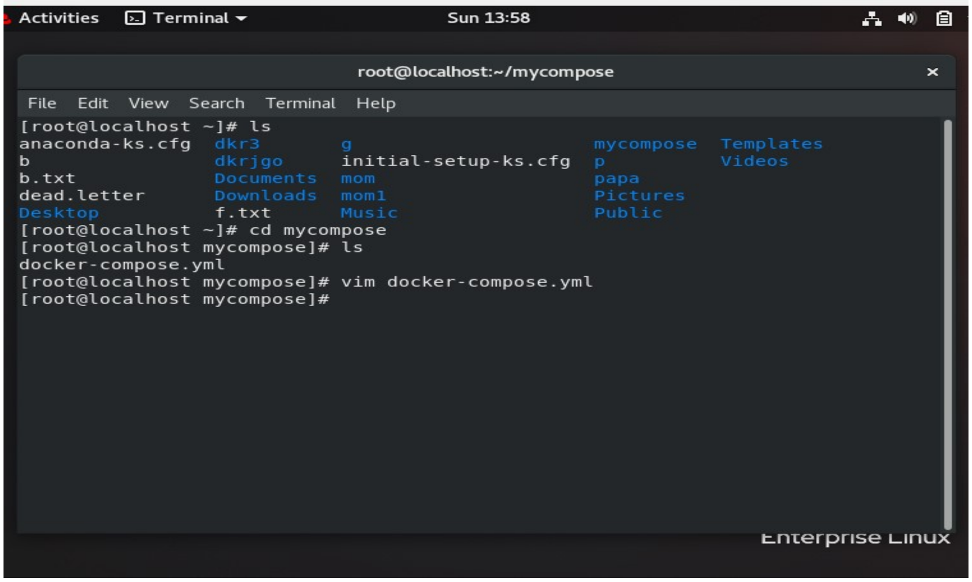
Once the environment of redhat 8 and docker and mysql is set up we can start with our project oriented development:

1. Make a directory in your root folder , go into that directory



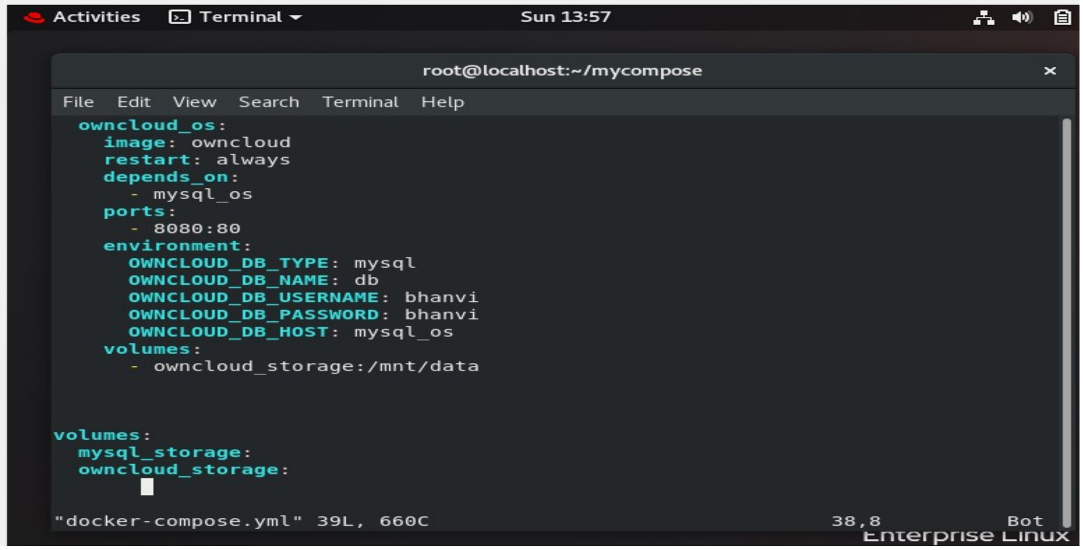
```
[root@desshi ~]#
[root@desshi ~]# mkdir directorio0
[root@desshi ~]# ls
anaconda-ks.cfg  directorio0  install.log         rpmbuild
Desktop          home         install.log.syslog
[root@desshi ~]# cd directorio0/
[root@desshi directorio0]# ls
[root@desshi directorio0]# pwd
/root/directorio0
[root@desshi directorio0]# 
```

2. Form a file with the name < docker-compose.yml > in that dir



```
[root@localhost ~]# ls
anaconda-ks.cfg  dkr3       g                     mycompose  Templates
b                dkrjgo     initial-setup-ks.cfg  p          Videos
b.txt            Documents  mom                   papa
dead.letter      Downloads  mom1                  Pictures
Desktop          f.txt      Music                 Public
[root@localhost ~]# cd mycompose
[root@localhost mycompose]# ls
docker-compose.yml
[root@localhost mycompose]# vim docker-compose.yml
[root@localhost mycompose]#
```

3. copy the code written in the file “docker-compose.yml”provided in the repo .



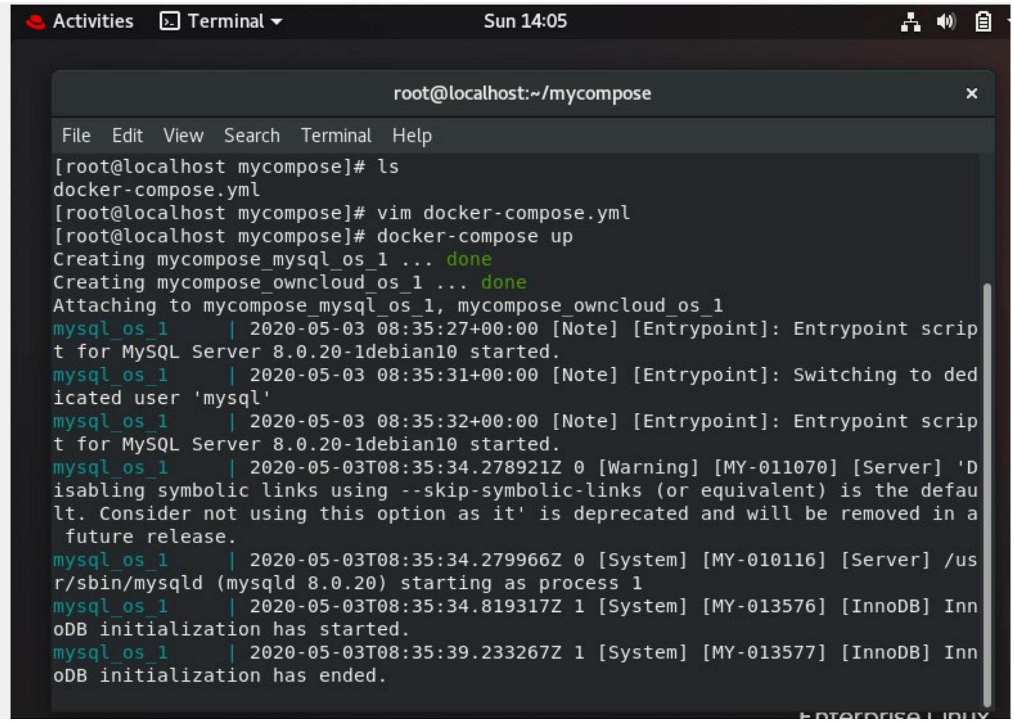
Activities
Terminal
Sun 13:57
root@localhost:~/mycompose
File Edit View Search Terminal Help
Enterprise Linux

```
  owncloud_os:
    image: owncloud
    restart: always
    depends_on:
      - mysql_os
    ports:
      - 8080:80
    environment:
      OWNCLOUD_DB_TYPE: mysql
      OWNCLOUD_DB_NAME: db
      OWNCLOUD_DB_USERNAME: bhanvi
      OWNCLOUD_DB_PASSWORD: bhanvi
      OWNCLOUD_DB_HOST: mysql_os
    volumes:
      - owncloud_storage:/mnt/data


volumes:
  mysql_storage:
  owncloud_storage:

"docker-compose.yml" 39L, 660C                                38,8          Bot
```

4.Run < docker-compose up > command and here we go

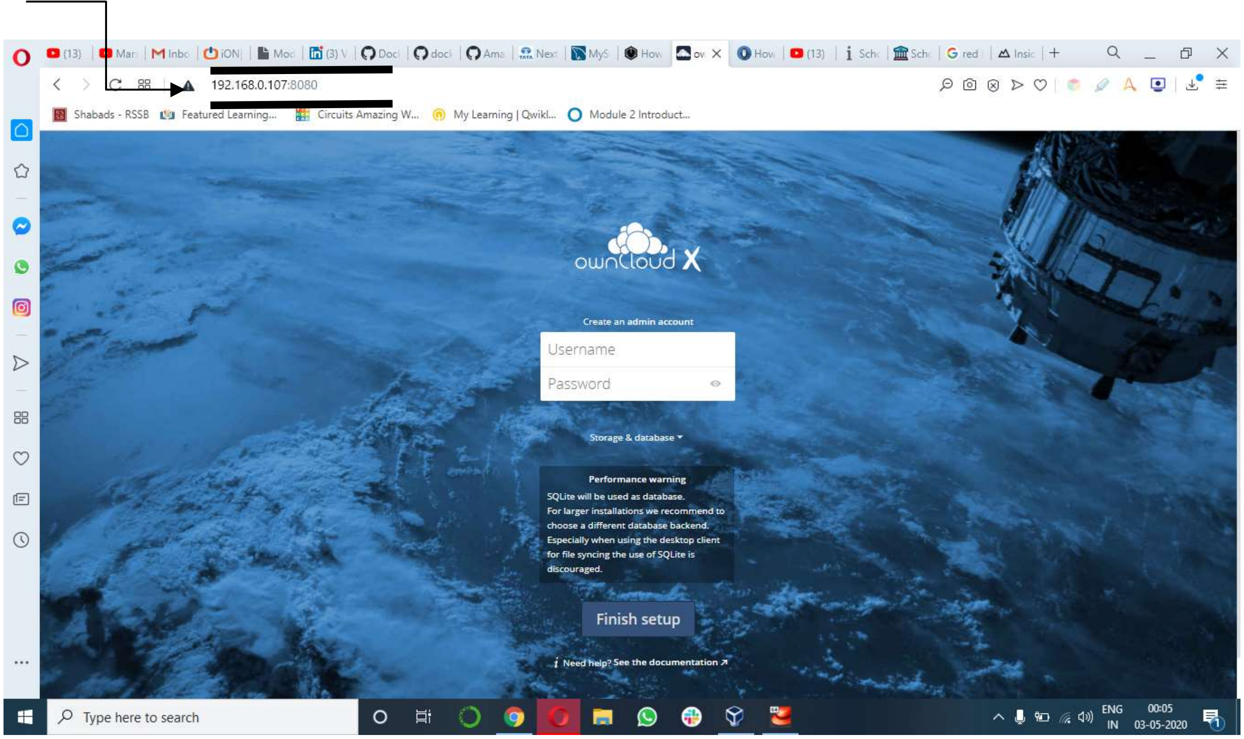


Activities
Terminal
Sun 14:05
root@localhost:~/mycompose
File Edit View Search Terminal Help
Enterprise Linux

```
[root@localhost mycompose]# ls
docker-compose.yml
[root@localhost mycompose]# vim docker-compose.yml
[root@localhost mycompose]# docker-compose up
Creating mycompose_mysql_os_1 ... done
Creating mycompose_owncloud_os_1 ... done
Attaching to mycompose_mysql_os_1, mycompose_owncloud_os_1
mysql_os_1      | 2020-05-03 08:35:27+00:00 [Note] [Entrypoint]: Entrypoint scrip
t for MySQL Server 8.0.20-1debian10 started.
mysql_os_1      | 2020-05-03 08:35:31+00:00 [Note] [Entrypoint]: Switching to ded
icated user 'mysql'
mysql_os_1      | 2020-05-03 08:35:32+00:00 [Note] [Entrypoint]: Entrypoint scrip
t for MySQL Server 8.0.20-1debian10 started.
mysql_os_1      | 2020-05-03T08:35:34.278921Z 0 [Warning] [MY-011070] [Server] 'D
isabling symbolic links using --skip-symbolic-links (or equivalent) is the defau
lt. Consider not using this option as it' is deprecated and will be removed in a
 future release.
mysql_os_1      | 2020-05-03T08:35:34.279966Z 0 [System] [MY-010116] [Server] /us
r/sbin/mysqld (mysqld 8.0.20) starting as process 1
mysql_os_1      | 2020-05-03T08:35:34.819317Z 1 [System] [MY-013576] [InnoDB] Inn
oDB initialization has started.
mysql_os_1      | 2020-05-03T08:35:39.233267Z 1 [System] [MY-013577] [InnoDB] Inn
oDB initialization has ended.
```

5. Now in you browser run <<container ip>:8080 > to see your page

Ip address with port no:



192.168.0.107:8080

Create an admin account

Username

Password

Storage & database

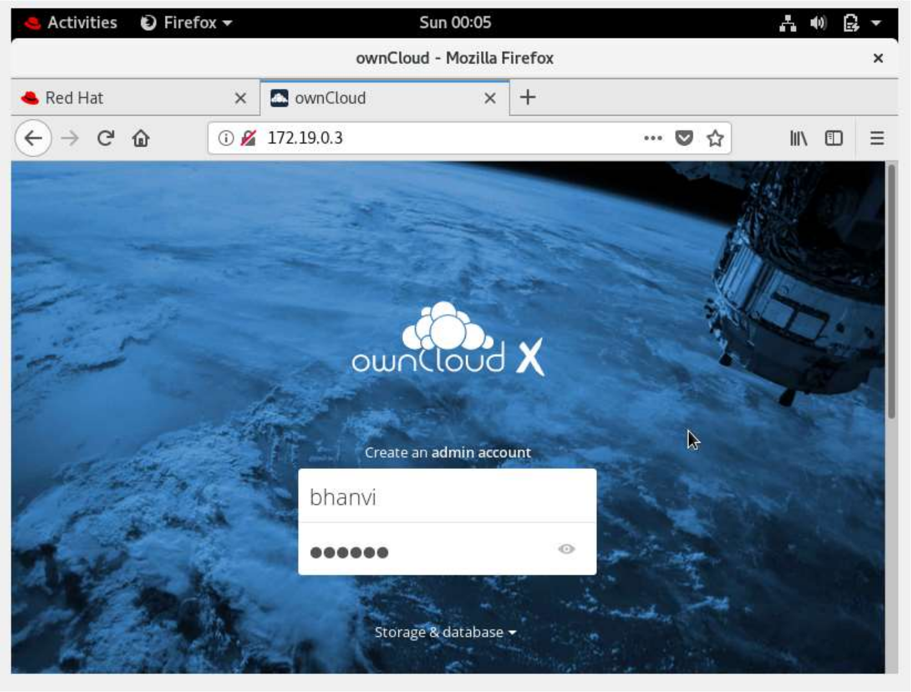
Performance warning

SQLite will be used as database.
For larger installations we recommend to choose a different database backend.
Especially when using the desktop client for file syncing the use of SQLite is discouraged.

Finish setup

Need help? See the documentation ↗

6. Acces the page through username and password



ownCloud - Mozilla Firefox

172.19.0.3

Create an admin account

bhanvi

●●●●●●

Storage & database

7. Hurray now you can start synchronizing and sharing your files!

The stepwise process can be seen in the snapshorts folder also.