

Steps & Command for Installation of Own Cloud

1. Update Ubuntu 22.04

First, update your system to its latest state by running the below-given command:

```
sudo apt update &&sudo apt upgrade
```

2. Install Apache

We need an Apache web server, PHP, and MySQL stack on our system to install OwnCloud on Ubuntu 22.04 server.

```
sudo apt install apache2
```

To make sure the webserver service is enabled in the background.

```
sudo systemctl enable --now apache2
```

To check status:

```
systemctl status apache2 --no-page -l
```

```
h2s@h2s-virtual-machine:~/Downloads$ systemctl status apache2 --no-page -l
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2022-06-01 21:10:02 IST; 30min ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 46676 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
   Main PID: 46680 (apache2)
      Tasks: 55 (limit: 4588)
     Memory: 10.9M
        CPU: 364ms
    CGroup: /system.slice/apache2.service
            └─46680 /usr/sbin/apache2 -k start
              └─46681 /usr/sbin/apache2 -k start
                └─46682 /usr/sbin/apache2 -k start

Jun 01 21:10:02 h2s-virtual-machine systemd[1]: Starting The Apache HTTP Server...
Jun 01 21:10:02 h2s-virtual-machine apachectl[46679]: AH00558: apache2: Could not reliably determine the
s fully qualified domain name, using 127.0.1.1. Set the 'ServerName' directive globally to suppress this
Jun 01 21:10:02 h2s-virtual-machine systemd[1]: Started The Apache HTTP Server.
```

3. Install PHP and required extensions

The PHP version available to install using the default standard repository of Ubuntu 22.04 is 8.x, however, while doing this article OwnCloud doesn't support PHP 8.0, hence here we are installing PHP7.4 using Ondrej PPA repo.

To have the required version of PHP, add the Ondrej repository:

```
sudo add-apt-repository ppa:ondrej/php
```

Run system update command:

```
sudo apt update
```

Install required extensions:

```
sudo apt install php7.4 php7.4-  
{ opcache,gd,curl,mysqlnd,intl,json,ldap,mbstring,mysqlnd,xml,zip }
```

```
sudo apt-get install php8.0-gd
```

```
sudo apt-get install mysql-server
```

```
sudo service apache2 restart
```

Secure MySQL installation

Next, secure your MySQL database server by creating a new root password and removing the demo database, users, and limited remote access.

Login to MySQL

```
sudo mysql
```

Change the root user password for MySQL to whatever you want, however, don't forget to replace **MyPassword@123** in the given command with the password you want to set.

```
ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password by  
'MyPassword@123';  
exit;
```

Run command to secure MySQL installation:

```
sudo mysql_secure_installation
```

The script will ask these questions.

Enter the password for user root: type your set password and then press **ENTER**.

Change the password for root? Press **N**, then **ENTER**.
Remove anonymous users? Press **Y**, then **ENTER**.
Disallow root login remotely? Press **Y**, then **ENTER**.
Remove test database and access to it? Press **Y**, then **ENTER**.
Reload privilege tables now? Press **Y**, then **ENTER**.

Create Database for OwnCloud

To store the data generated by the OwnCloud, we need a Database server, here we are using MySQL. So, let's create a Database for OwnCloud using the given commands:

Login to MySQL DB server

```
sudo mysql -u root -p
```

Note: Use the password to log in that you have created while securing MySQL.

Follow the command to create a new DB. However, don't forget to replace **new_user** with whatever name you want to give to your Database user and in the same way- **new_db** with a name for Database and **your_password** for the password.

```
CREATE DATABASE new_db;  
CREATE USER 'new_user'@'localhost' IDENTIFIED BY 'your_password';  
GRANT ALL PRIVILEGES ON new_db.* TO 'new_user'@'localhost';  
FLUSH PRIVILEGES;  
Exit;
```

6. Download ownCloud on Ubuntu 22.04 LTS

Although OwnCloud is open-source software, not available to install using the default package manager. Therefore, we need to download the latest version of the ownCloud file manually. Go to your terminal and run the given commands.

```
cd /tmp  
wget https://download.owncloud.com/server/stable/owncloud-complete-latest.tar.bz2
```

Now extract the downloaded file:

```
tar -xvf owncloud-complete-latest.tar.bz2
```

Move the extracted folder to the web root directory.

```
sudo mv owncloud /var/www/html/
```

Change the ownership of the ownCloud directory:

```
sudo chown -R www-data: /var/www/html/owncloud
```

7. Configure ownCloud Apache configuration

To serve Owncloud files efficiently, let's configured the virtual host configuration file on the Apache web server for it.

```
sudo nano /etc/apache2/sites-available/owncloud.conf
```

Copy-paste the following lines:

```
<VirtualHost *:80>

ServerAdmin admin@example.com
DocumentRoot /var/www/html/owncloud
ServerName example.com

<Directory /var/www/html/owncloud>
Options FollowSymlinks
AllowOverride All
Require all granted
</Directory>

ErrorLog ${APACHE_LOG_DIR}/example.com_error.log
CustomLog ${APACHE_LOG_DIR}/your-domain.com_access.log combined
```

```
</VirtualHost>
```

Save the file using **Ctrl+O**, hit the **Enter** key, and then exit the text editor using **Ctrl+X**.

8. Install OwnCloud on Ubuntu 22.04

Finally, after following all the above-given steps, open your system's browser and point it to the server IP address or domain address where you have installed the OwnCloud.

Example:

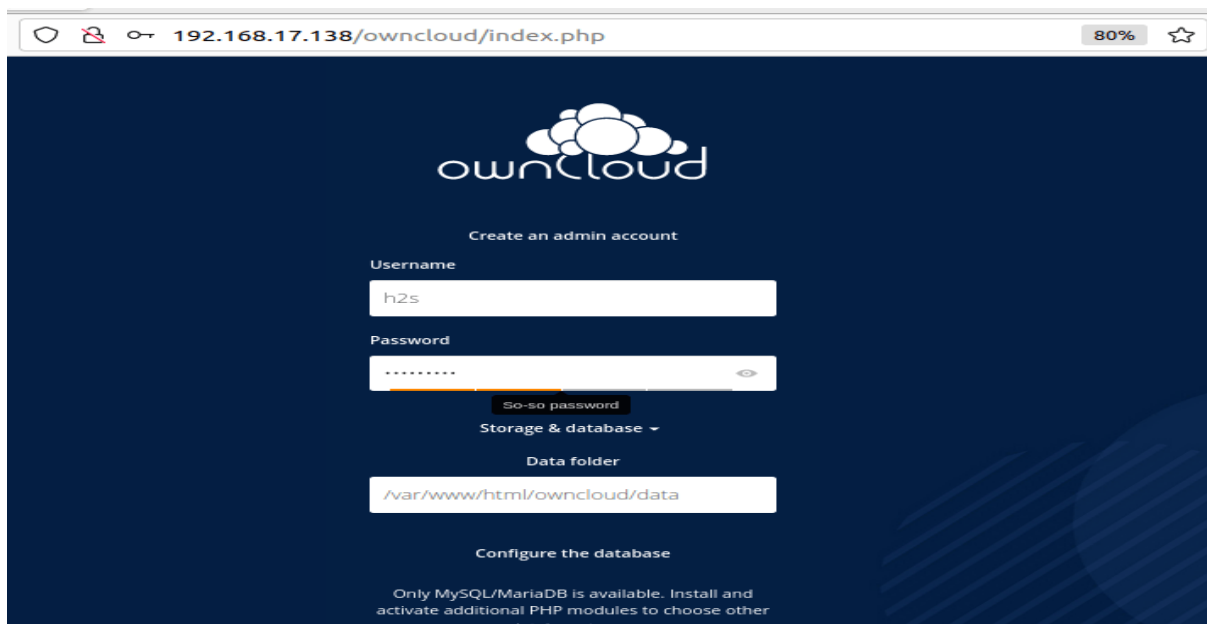
`http://server-ip/owncloud`

or

`http://domain.com/owncloud`

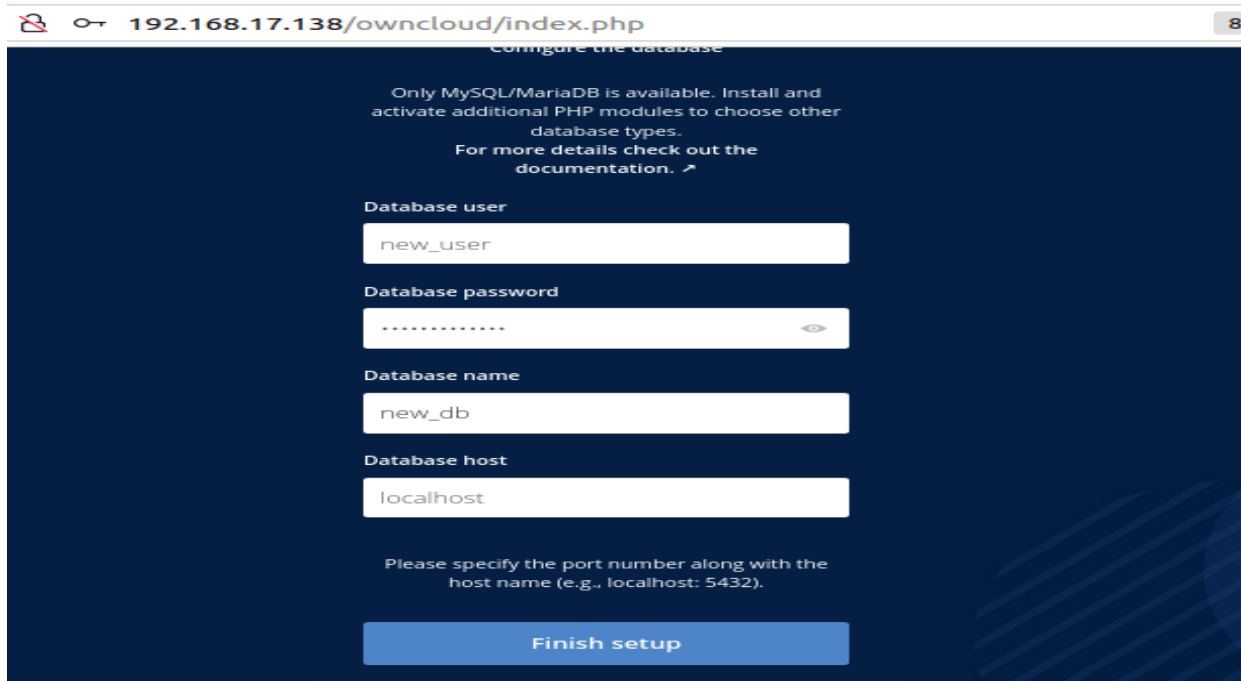
9. Create an Admin account

The first thing we have to do as we get the web interface of Owncloud is to create an Admin account.



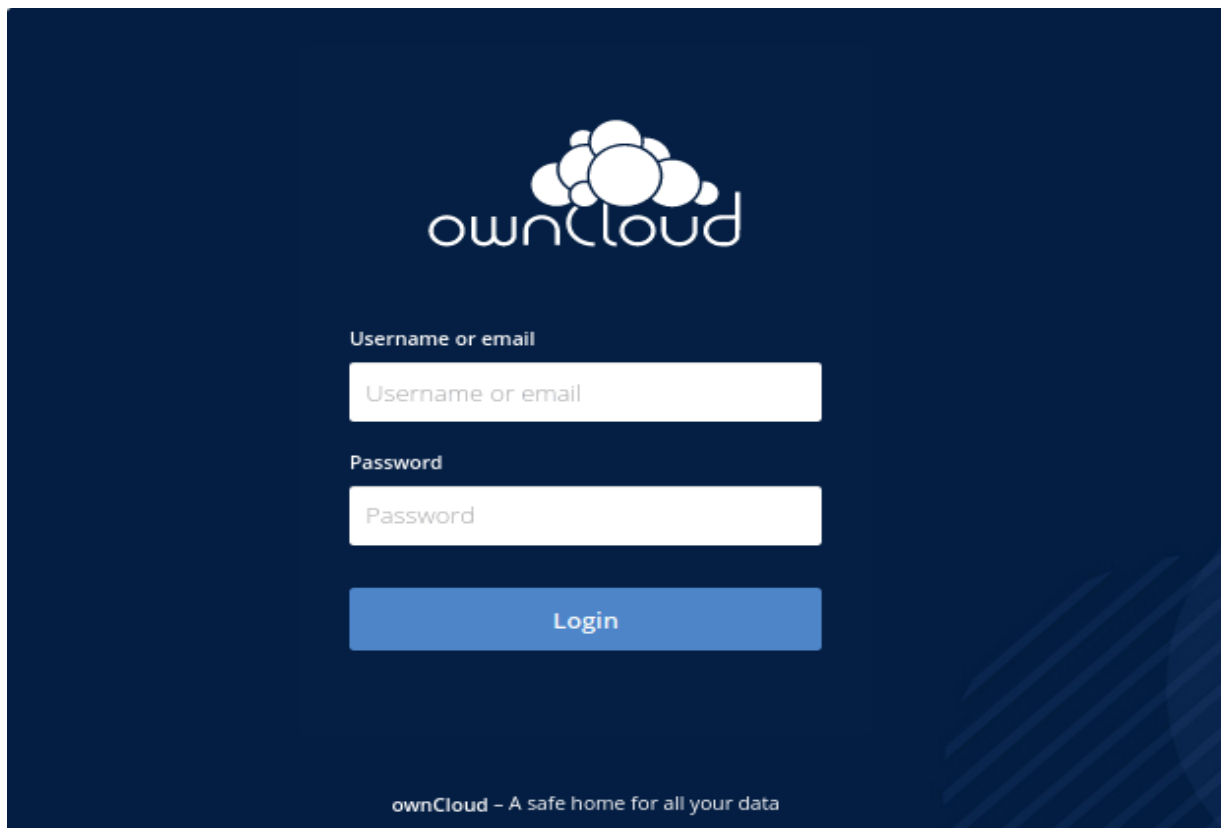
The screenshot shows a web browser window with the address bar displaying `192.168.17.138/owncloud/index.php`. The page features the OwnCloud logo at the top. Below the logo, the heading "Create an admin account" is visible. The form includes a "Username" field with the value "h2s", a "Password" field with masked characters and a toggle for password visibility, a "So-so password" strength indicator, a "Storage & database" dropdown menu, and a "Data folder" field with the value `/var/www/html/owncloud/data`. At the bottom, there is a section titled "Configure the database" with a note about MySQL/MariaDB availability.

After that, scroll down and add the details of the Database you have created for OwnCloud and click on the “**Finish Setup**”.



The screenshot shows a web browser window with the address bar displaying "192.168.17.138/owncloud/index.php". The page title is "Configure the database". The main content area has a dark blue background with white text. It states: "Only MySQL/MariaDB is available. Install and activate additional PHP modules to choose other database types. For more details check out the documentation." Below this, there are four input fields: "Database user" with the value "new_user", "Database password" with a masked password "*****", "Database name" with the value "new_db", and "Database host" with the value "localhost". A note below the fields says: "Please specify the port number along with the host name (e.g., localhost: 5432)." At the bottom, there is a blue button labeled "Finish setup".

Wait for a few seconds and you will have the Login interface. Use the Admin account details you have created to get the Dashboard.



The screenshot shows the OwnCloud login interface. At the top, there is the OwnCloud logo, which consists of a cluster of white circles of varying sizes above the text "owncloud". Below the logo, there are two input fields: "Username or email" and "Password". Both fields have placeholder text of the same name. Below the password field, there is a blue button labeled "Login". At the bottom of the page, there is a footer that reads "ownCloud – A safe home for all your data".

10. OwnCloud Dashboard

Using the Dashboard of Owncloud, we can upload the files and share them with others if we want.

Files

ownCloud

h2s

All files

★ Favorites

Shared with you

Shared with others

Shared by link

Tags

Deleted files

Settings

All files

Name

Size

Modified

Documents

35 KB

seconds ago

Photos

988 KB

seconds ago

ownCloud Manual.pdf

6.4 MB

seconds ago

2 folders and 1 file

7.4 MB

ownCloud

Create an admin account

Username

Password

Storage & database

Data folder

/var/www/html/owncloud/data

Configure the database

Transferring data from 54.83.139.174...

Users - ownCloud

Users

+ Add Group

Everyone 2

Admins 1

DS 1

pp pp@rknc.edu Groups Create

Username	Full Name	Password	Groups	Group Admin for	Quota
BCH	BCH	*****	DS	no group	Default

Settings

Users

ownCloud

root

+ Add Group

Username E-Mail Groups Create

	Username	Full Name	Password	Groups	Group Admin for	Quota	
Everyone 3	BCH	BCH	*****	DS	no group	Default	
Admins 1	PP123	PP123	*****	no group	no group	Default	
DS 1	root	root	*****	admin	no group	Default	

Settings

29°C Haze

Search

ENG IN 05:32 20-09-2023

Users

ownCloud

root

+ Add Group

Username E-Mail Groups Create

	Username	Full Name	Password	Groups	Group Admin for	Quota	
Everyone 3	BCH	BCH	*****	DS	no group	Default	
Admins 1	PP123	PP123	*****	DS	no group	Default	
DS 2	root	root	*****	admin	no group	Default	

Settings

29°C Haze

Search

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The screenshot displays a web browser window with multiple tabs. The active tab is 'Files - ownCloud'. The address bar shows the URL '54.83.139.174/owncloud/index.php/apps/files/?dir=/&fileid=3#'. The ownCloud interface is visible, featuring a dark blue header with the ownCloud logo and a 'root' dropdown menu. The left sidebar contains navigation options: 'All files', 'Favorites', 'Shared with you', 'Shared with others', 'Shared by link', 'Tags', 'Deleted files', and 'Settings'. The main content area shows a file list with columns 'Name', 'Size', and 'Modified'. The list includes folders 'Documents', 'Learn more about ownCloud', and 'Photos', and files 'cloud computing practical list.docx' and 'Screenshot (142).png'. A summary row at the bottom indicates '3 folders and 2 files' with a total size of '4.6 MB'.

Name	Size	Modified
Documents	35 KB	in 5 hours
Learn more about ownCloud	3.5 MB	in 5 hours
Photos	988 KB	in 5 hours
cloud computing practical list.docx	11 KB	a month ago
Screenshot (142).png	146 KB	3 months ago
3 folders and 2 files	4.6 MB	