

**Title:** Installation and configuration of own Cloud

**Objective:**

To install and configure own cloud

**Software requirements:**

Operating System(Linux,virtual linux operating system on windows)

**Hardware Requirement:**

Pentium IV system with latest configurations

**Theory:**

**1.What is Cloud Computing?**

Cloud computing is a method for delivering information technology (IT) services in which resources are retrieved from the Internet through web-based tools and applications, as opposed to a direct connection to a server. Rather than keeping files on a proprietary hard drive or local storage device, cloud-based storage makes it possible to save them to a remote database. As long as an electronic device has access to the web, it has access to the data and the software programs to run it.

**2.Cloud Computing – Types of Cloud**

Cloud computing is usually described in one of two ways. Either based on the deployment model, or on the service that the cloud is offering. Based on a deployment model, we can classify cloud as

Public,

Private

Hybrid

Community cloud

Based on a service the cloud model is offering, we are speaking of either:

IaaS (Infrastructure-as-a-Service)

PaaS (Platform-as-a-Service)

SaaS (Software-as-a-Service) or,

Storage, Database, Information, Process, Application, Integration, Security, Management, Testing-as-a-service.

Basically, programs that are needed to run a certain application are now more

popularly located on a remote machine, owned by another company. This is done in order not to lose on the quality performance due to processing power of your own computer, to save money on IT support, and yet remain advantageous on the market. These computers that run the applications, store the data, and use a server system, are basically what we call “the cloud”

### **3.Advantages of Cloud Computing:**

#### **1. Less Costs**

The services are free from capital expenditure. There are no huge costs of hardware in cloud computing. You just have to pay as you operate it and enjoy the model based on your subscription plan.

#### **2. 24 X 7 Availability**

Most of the cloud providers are truly reliable in offering their services, with most of them maintaining an uptime of 99.9%. The workers can get onto the applications needed basically from anywhere. Some of the applications even function off-line.

#### **3. Flexibility in Capacity**

It offers a flexible facility which could be turned off, up or down as per the circumstances of the user. For instance, a promotion of sales is very popular, capacity can be immediately and quickly added to it for the avoidance of losing sales and crashing servers. When those sales are done, the capacity can also be shrunk for the reduction of costs.

#### **4. All over Functioning**

Cloud computing offers yet another advantage of working from anywhere across the globe, as long as you have an internet connection. Even while using the critical cloud services that offer mobile apps, there is no limitation of the device used.

#### **5. Automated Updates on Software**

In cloud computing, the server suppliers regularly update your software including the updates on security, so that you do not need to agonize on wasting your crucial time on maintaining the system. You find extra time to focus on the important things like „How to grow your businesses.

#### **6. Security**

Cloud computing offers great security when any sensitive data has been lost. As the data is stored in the system, it can be easily accessed even if something happens to your computer. You can even remotely wipe out data from the lost machines for avoiding it getting in the wrong hands

#### .7. Carbon Footprint

Cloud computing is helping out organizations to reduce their carbon footprint. Organizations utilize only the amount of resources they need, which helps them to avoid any over-provisioning. Hence, no waste of resources and thus energy.

#### 8. Enhanced Collaboration

Cloud applications enhance collaboration by authorizing diverse groups of people virtually meet and exchange information with the help of shared storage. Such capability helps in improving the customer service and product development and also reducing the marketing time.

#### 9. Control on the Documents

Before cloud came into being, workers needed to send files in and out as the email attachments for being worked on by a single user at one time ultimately ending up with a mess of contrary titles, formats, and file content. Moving to cloud computing has facilitated central file storage.

#### 10. Easily Manageable

Cloud computing offers simplified and enhanced IT maintenance and management capacities by agreements backed by SLA, central resource administration and managed infrastructure. You get to enjoy a basic user interface without any requirement for installation. Plus you are assured guaranteed and timely management, maintenance, and delivery of the IT services.

### **4.Applications of Cloud Computing**

1. Online File storage
2. Photo editing software
3. Digital video software
4. Twitter-related applications
5. Creating image-album
6. Web application for antivirus
7. Word processing application
8. Spreadsheets
9. Presentation software
10. Finding a way on the map
11. E-commerce software
12. Miscellaneous applications.

## 5.What is OwnCloud?

OwnCloud is a suite of client–server software for creating and using file hosting services. OwnCloud is functionally very similar to the widely used Drop box, with the primary functional difference being that the Server Edition of ownCloud is free and open-source, and thereby allowing anyone to install and operate it without charge on a private server. It also supports extensions that allow it to work like Google Drive, with online document editing, calendar and contact synchronization, and more. Its openness avoids enforced quotas on storage space or the number of connected clients, instead having hard limits (like on storage space or number of users) defined only by the physical capabilities of the server. The development of ownCloud was announced in January 2010, in order to provide a free software replacement to proprietary storage service providers. The company was founded in 2011 and forked the code away from KDE to github.

## 6. Installation and configuration of own Cloud

For steps can refer: <https://www.linode.com/docs/applications/cloud-storage/install-and-configure-owncloud-on-ubuntu-16-04/#create-an-administrator-account>

**Step1:**Open Terminal and type:-

1. sudo apt update && sudo apt upgrade

2.sudo wget -nv

[https://download.owncloud.org/download/repositories/9.1/Ubuntu\\_16.04/Release.key](https://download.owncloud.org/download/repositories/9.1/Ubuntu_16.04/Release.key) -O Release.key

3.sudo apt-key add - < Release.key

4.sudo sh -c "echo 'deb

[http://download.owncloud.org/download/repositories/9.1/Ubuntu\\_16.04/](http://download.owncloud.org/download/repositories/9.1/Ubuntu_16.04/) /' >  
/etc/apt/sources.list.d/owncloud.list"

5.sudo apt update

6.sudo apt install owncloud

**Step 2:**Open another terminal :-Log in to your MySQL database, and enter your root password:

1.mysql -u root -p

2.password: root

**Step 3:**ENTER COMMAND: -Create a new database for ownCloud, and replace root with a new, secure password:

- 1.CREATE DATABASE ownCloud;
- 2.CREATE USER ownCloud@localhost;
- 3.SET PASSWORD FOR 'ownCloud'@'localhost' = PASSWORD('root');

**Step 4:-**Assign the new user to the database:

- 1.GRANT ALL PRIVILEGES ON ownCloud.\* to ownCloud@localhost;
- 2.FLUSH PRIVILEGES;
3. exit

**Step 5:-**Log into MySQL as the newly created user:

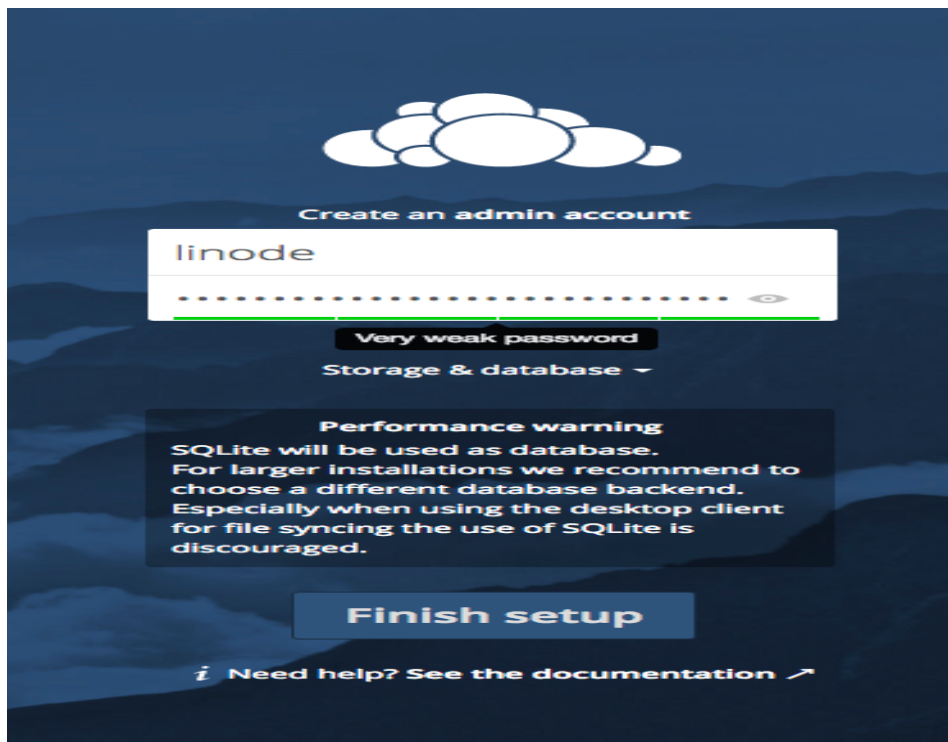
```
mysql -u ownCloud -p  
enter password :root
```

**Step 6:-**check the current user in MySQL using  
SELECT current\_user();

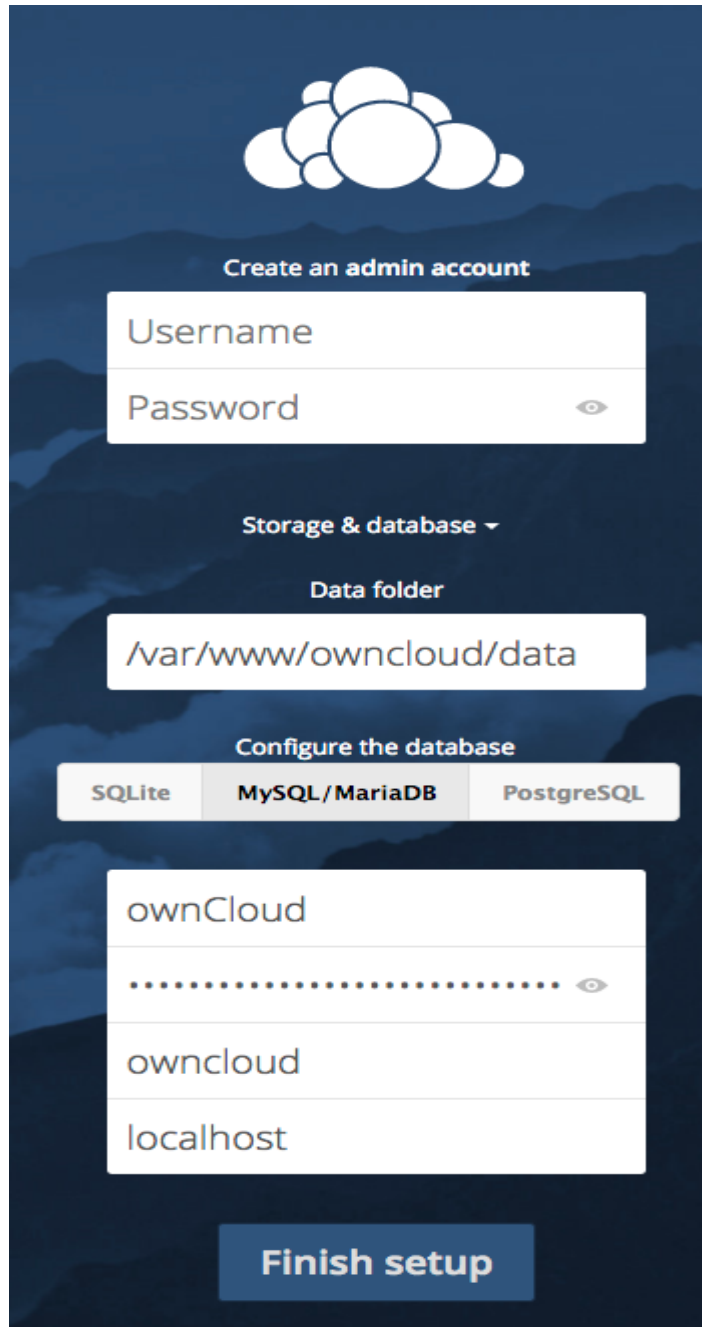
**Step 7:-**NOW OPEN YOUR BROWSER AND TYPE:-  
localhost/owncloud

## 7.Create an Administrator Account


1. ENTER USERNAME
2. ENTER PASSWORD



3. Click **Storage & database** and enter the database login information:

The image shows the 'Storage & database' configuration screen of the ownCloud installer. At the top is the ownCloud logo (a cloud of circles) and the text 'Create an admin account'. Below this are two input fields: 'Username' and 'Password'. The 'Password' field has an eye icon to toggle visibility. A dropdown menu labeled 'Storage & database' is open, showing 'Data folder' with the path '/var/www/owncloud/data'. Below that is a section 'Configure the database' with three tabs: 'SQLite', 'MySQL/MariaDB' (which is selected), and 'PostgreSQL'. Under the 'MySQL/MariaDB' tab, there are three input fields: the first contains 'ownCloud', the second is masked with dots and has an eye icon, the third contains 'owncloud', and the fourth contains 'localhost'. At the bottom is a large blue button labeled 'Finish setup'.

4. Welcome to ownCloud:

Files

All files

Favorites

Shared with you

Shared with others

Shared by link


Tags

 > 

Name

Size

Documents



35 KB

2

Photos



663 KB

2

ownCloud Manual.pdf



3.9 MB

2

2 folders and 1 file

4.5 MB

**Conclusion:**

Hence ,we have studied about the own cloud,its installation and its configuration.