**Set Up Your Own Raspberry Pi Cloud Server with Nextcloud Document**

**Course: CNE350 Unix and IoT**

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# Project overview and scope

## Project overview

Nextcloud is an open-source, self-hosted file-sharing and collaboration platform that allows users to store, manage, and share files securely. It offers a range of functionalities similar to popular cloud storage services like Google Drive, Dropbox, and Microsoft OneDrive but with the added advantage of giving users complete control over their data and privacy. Here are some of the key benefits of using Nextcloud:

1. **Data Ownership and Privacy**: Since Nextcloud is self-hosted, users have full control over their data. This means that files are stored on servers that the user owns or trusts, reducing the risk of data breaches and unauthorized access.
2. **Customization and Flexibility**: Being open-source, Nextcloud can be customized to meet specific needs. Users can modify the software and integrate additional features through a wide array of apps available in the Nextcloud app store.
3. **Security**: Nextcloud includes robust security features such as end-to-end encryption, two-factor authentication, and granular access controls. Regular security updates ensure that data remains protected against vulnerabilities.
4. **Collaboration Tools**: Nextcloud offers a variety of collaboration tools, including file sharing, collaborative document editing, calendar and contacts management, and communication apps like Nextcloud Talk for audio and video conferencing.
5. **Scalability**: Nextcloud can scale from small home setups to large enterprise environments, accommodating a growing number of users and increasing amounts of data.
6. **Compliance**: It helps organizations meet regulatory requirements related to data protection and privacy, such as GDPR, by providing full data control and transparency.
7. **Cost-Effectiveness**: While there are costs associated with hosting and maintaining the server, Nextcloud itself is free to use, potentially reducing expenses compared to proprietary cloud services.
8. **Integration Capabilities**: Nextcloud integrates seamlessly with other enterprise tools and services, including LDAP/AD for user management, various storage backends, and third-party productivity applications.

Overall, Nextcloud provides a powerful, secure, and flexible alternative to proprietary cloud services, giving users and organizations the ability to manage their data according to their own policies and requirements.

## Project scope

• Install and configure NextCloudPi OS on Raspberry Pi.

• Activate and configure NextCloud.

• Setup external storage for Cloud Server.

• Configure external access over the Internet.

# Install and configure NextCloudPi OS on Raspberry Pi

A screenshot of a computer

Description automatically generated

# Activate and configure NextCloud

# Setup external storage for Cloud Server

# Configure external access over the Internet