

Developing apps for Nextcloud

A Free and Open Source alternative to EvilCorp online office suites.

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Think of this as a fork...

- All the code comes from the documentation or Nextcloud itself
- It's not plagiarism... it's a fork!!

- I know PHP
- I like Nextcloud
- Nextcloud needs better apps

Grumpy Old Man Explains Why This Is Important. Again.

Evil bad guys want all your data.

They want it for profit.

They want it for power.

They want it and we all keep giving it to them.

Only YOU have the power to make things better.

OK, not ONLY you.

More like “you” in the collective. Or WE.

¡Que Viva La Libertad!

You've only got so much time...

Why Nextcloud?

- **You already know PHP**
- **You were planning to learn PHP anyway**
- **Easy way to build some small apps**
 - Potential employers seem to like to see stuff in your github/gitlab repos
 - Good practice
- **Business opportunities**
 - Provide Nextcloud for small biz customers
 - Take contract work developing apps for existing users

Setting Up Your Dev Environment

Get ye a virtual machine or other container

- Docker
- Podman
- VirtualBox
- Vagrant (which is VirtualBox + nifty config stuff)
- There are many options...

The best tool is often just the one you know.

Grab the code, and get working

The code lives here:

<https://github.com/nextcloud/server>

Check out the appliances here:

<https://nextcloud.com/install/#instructions-server>

Before you wade into code...

Read this guide:

<https://nextcloudappstore.readthedocs.io/en/latest/developer.html>

- Your source code needs to be on a service like GitHub, GitLab, or BitBucket.
- Use git tags to create new releases
- Beware the problem of GitHub release downloads!

Register your app

Use this form to create the skeleton of your app:

<https://apps.nextcloud.com/developer/apps/generate>

Don't worry, it won't be published in the appstore yet. This just gives you a download to get started.

What you get

- **appinfo/**: Contains app metadata and configuration
- **css/**: Contains the CSS
- **img/**: Contains icons and images
- **js/**: Contains the JavaScript files
- **lib/**: Contains the PHP class files of your app
- **src/**: Contains the source code of your vue.js app
- **templates/**: Contains the templates
- **tests/**: Contains the tests

The Request Lifecycle

- All requests start at index.php which calls up lib/base.php
 - Basic apps are loaded:
 - Authentication
 - Filesystem
 - Logging
 - User authenticated?
 - Load remaining apps navigation and pre-app configs
 - Load and run appinfo/routes.php for each app
 - Execute the router

What is routing?

Routes map a URL and a method to a controller method.

```
<?php
return [
    'routes' => [
        ['name' => 'page#index',
         'url' => '/',
         'verb' => 'GET'],
    ],
];
```

Get values from the URL

```
<?php
// Request: GET /index.php/apps/myapp/authors/3

// appinfo/routes.php
array('name' => 'author#show',
      'url' => '/authors/{id}',
      'verb' => 'GET'),

// controller/authorcontroller.php
class AuthorController {
    public function show(string $id): Response {
        // $id is '3'
    }
}
```

20 Minutes isn't very long...

Here's the link to the app development docs:

Basic concepts:

https://docs.nextcloud.com/server/latest/developer_manual/basics/index.html

App Development:

https://docs.nextcloud.com/server/latest/developer_manual/app_development/index.html

And I have some advice about the tutorial, too.

**...but I hope that you're
ready to explore more**

Thank you!

I do some other stuff. Check out
<https://sustainablysterling.com>
For links to BASH The Command Line,
rants, raves, and posts about
tech stuff I've messed up.

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