

## Home Page

[<](#) [>](#) localhost:3000/

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### Top Posts

Implementing Charts  
By wpa 20 comments

Making an app  
By Ramaz 35 comments

My project is done!  
By mito 3 comments

Topics

- [javascript](#)
- [golang](#)
- [servers](#)
- [webdev](#)

## Create a Topic

[<](#) [>](#) localhost:3000

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Create a Topic

Name

javascript

Description

laksjdlaksjdf

Topics

- [javascript](#)
- [golang](#)
- [servers](#)
- [webdev](#)

## View a Topic

[<](#) [>](#) localhost:3000/topics/javascript

Discuss

javascript

Implementing Charts  
By wpa 20 comments

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My project is done!  
By mito 3 comments

**JavaScript**

Here you can discuss all things javascript. Share your projects, ask questions, and help others.

## Create a Post

[<](#) [>](#) localhost:3000/topics/javascript/posts/new

Discuss

javascript

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Create a Post

Title

Content

JavaScript

Here you can discuss all things javascript. Share your projects, ask questions, and help others.

## View a Post

[<](#) [>](#) localhost:3000/topics/javascript/posts/123

Discuss

Implementing Charts

I'm trying to add a chart into my application, can anyone help me out?

Reply here

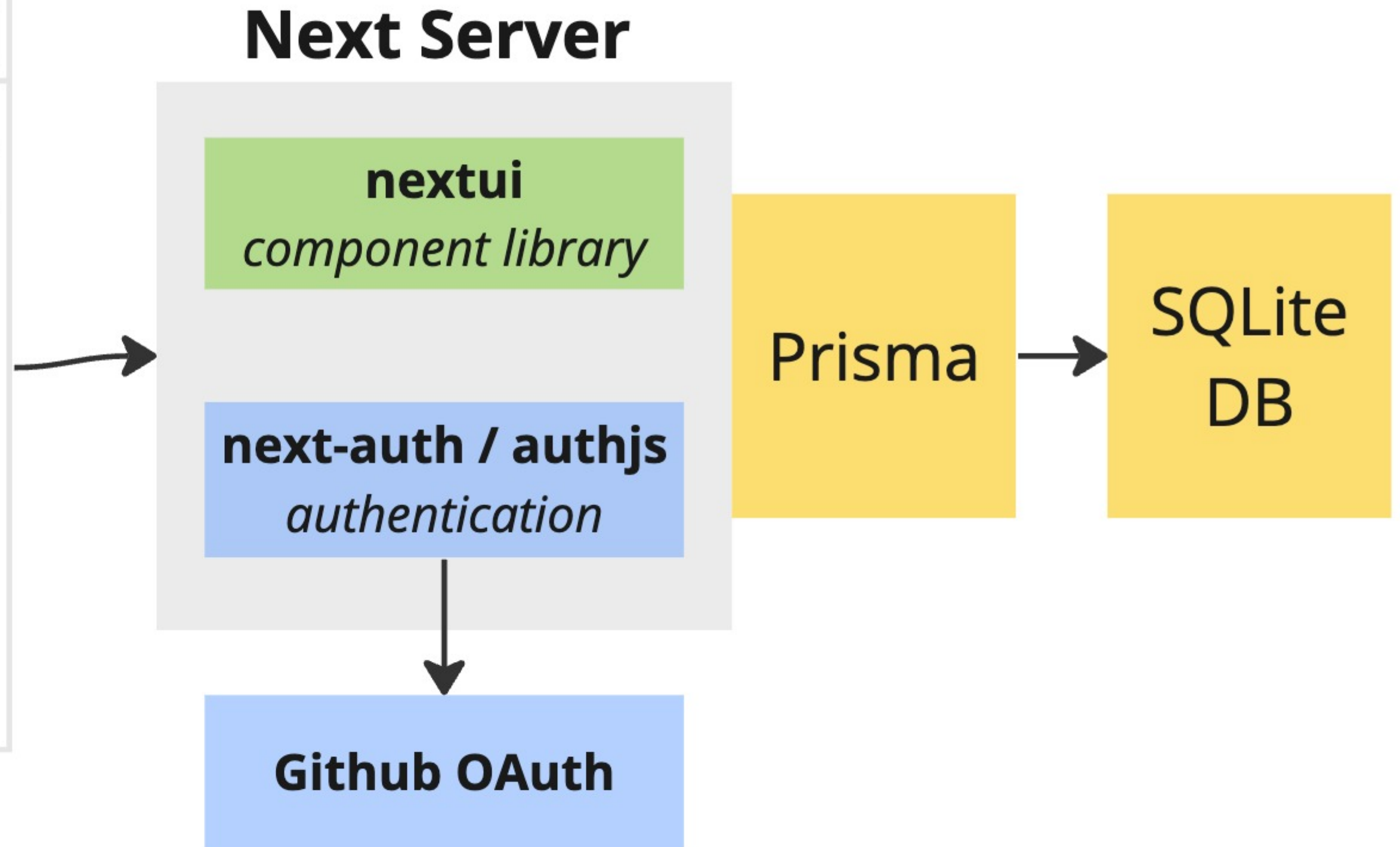
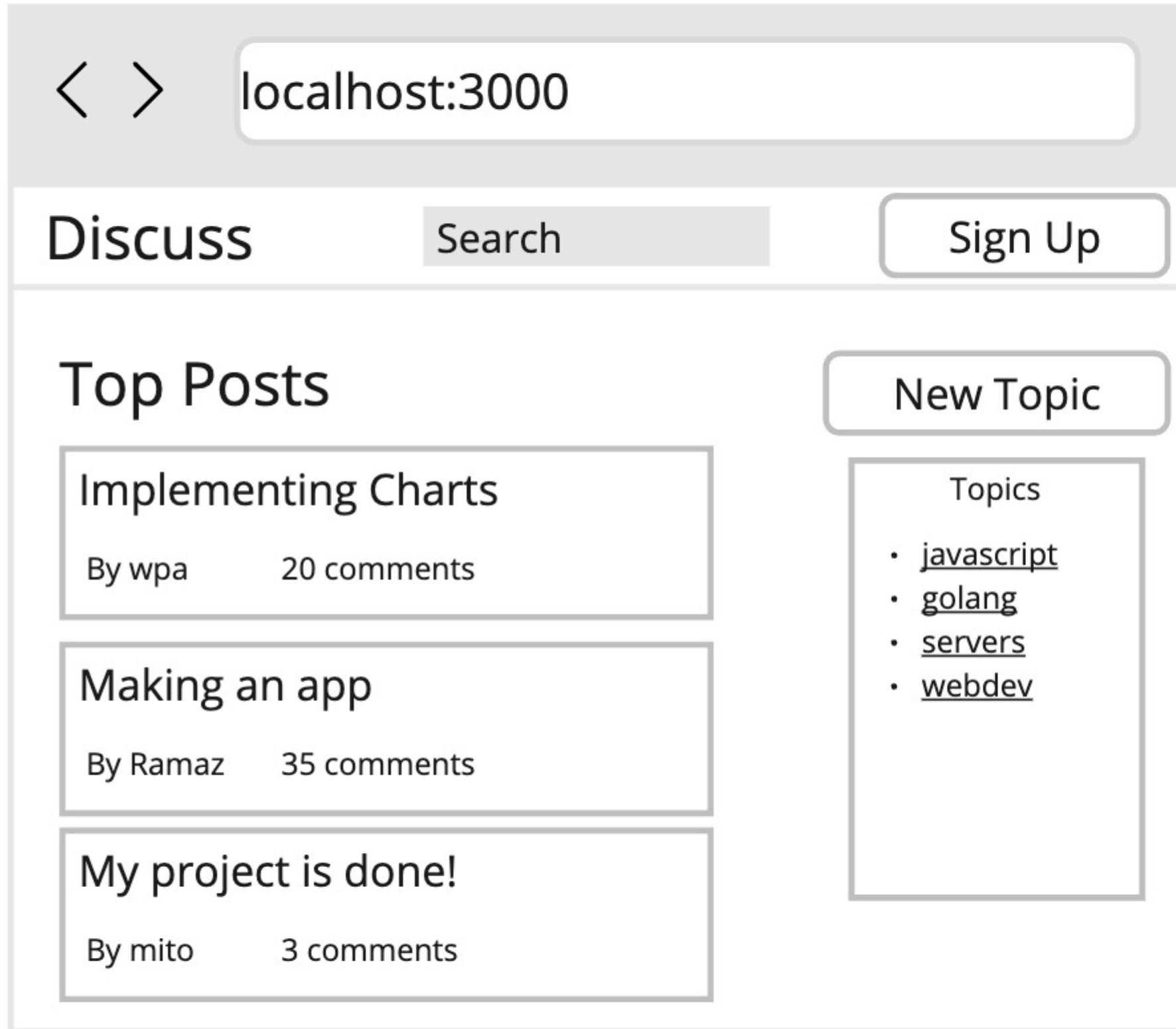
All 20 comments

Marcos

Have you tried using the Chart JS library?

mito

Yes, I tried that but I've been getting errors



# Project Design

Always important to do some upfront thinking about how to design your project

With Next, it is **twice as important**

Trying to solve caching issues later in your project is challenging! Easier up front!

Scaffold your different page.tsx files so you know what routes exist immediately

# Upfront Design for Caching

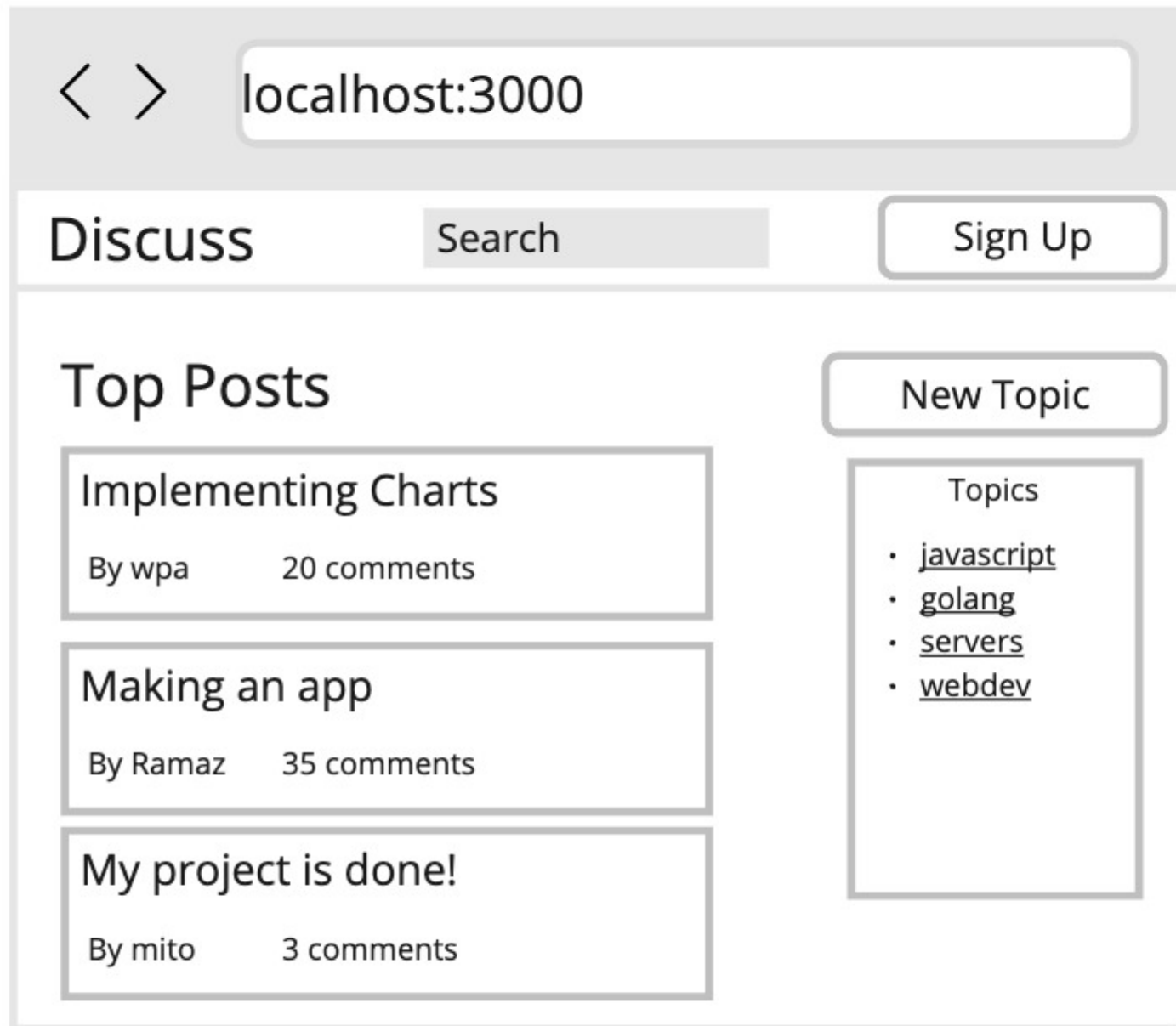
1

Identify the different types of data in your app that will be changing over time

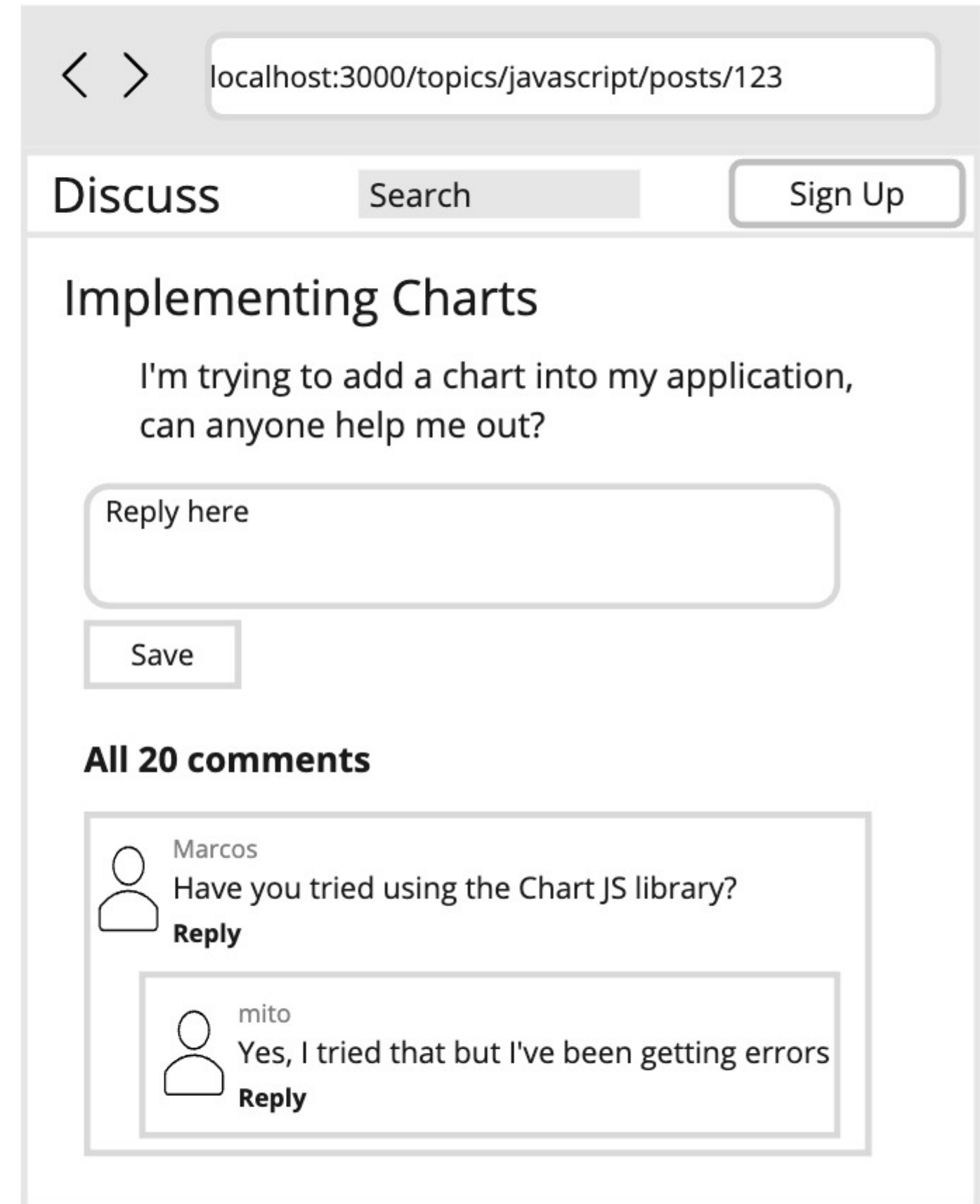
2

Find the different places where this data can change





# Types of Data



## ***NextUI Setup***

**[nextui.org/docs/frameworks/nextjs](https://nextui.org/docs/frameworks/nextjs)**

# Auth Setup

1

**github.com/settings/applications/new**

Create an OAuth app and generate a client\_id and client\_secret

2

Add

**AUTH\_SECRET, GITHUB\_CLIENT\_ID, GITHUB\_CLIENT\_SECRET**

to a .env.local file

3

Install these packages:

**@auth/core@0.18.1 @auth/prisma-adapter@1.0.6 next-auth@5.0.0-beta.3**

4

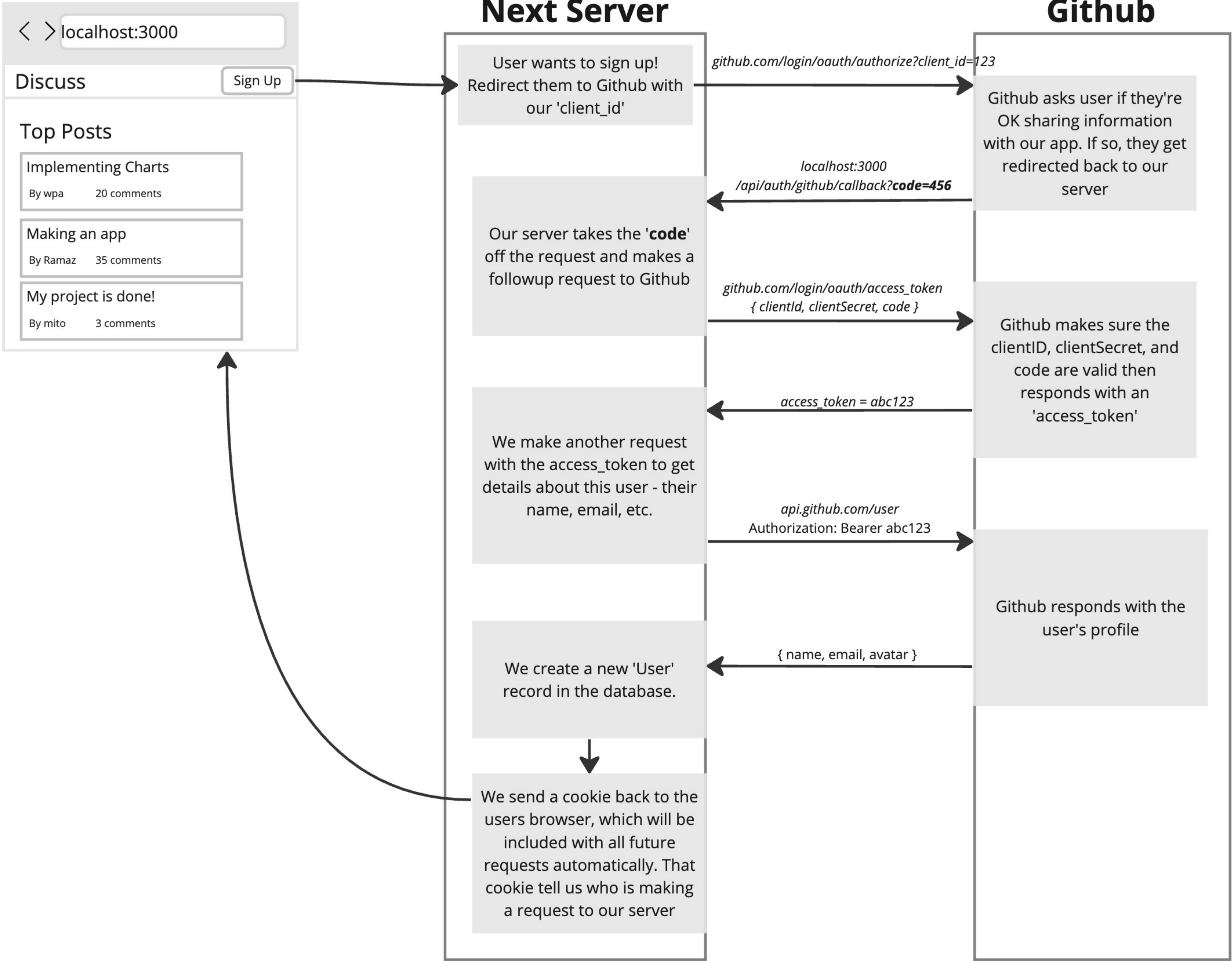
Make a 'auth.ts' file in the 'src' folder. Set up NextAuth and the PrismaAdapter in there

5

Set up the 'app/api/auth/[...nextauth]/route.ts' file to handle the requests between Githubs servers and ours

6

Make server actions to signin/signout the user  
(Optional, but highly recommended)





## Sign In / Sign Up

```
1 import * as actions from '@actions';
2
3 export default function Page() {
4   return <form action={actions.signIn}>
5     <button type="submit">Sign Up</button>
6   </form>
7 }
```

## See if a user is signed in from a Server Component

```
1 import { auth } from '@auth';
2
3 export default async function Page() {
4   const session = await auth();
5
6   if (session?.user) {
7     return <div>Signed In!</div>
8   } else {
9     return <div>Signed out</div>
10  }
11 }
```

## Sign Out

```
1 import * as actions from '@actions';
2
3 export default function Page() {
4   return <form action={actions.signOut}>
5     <button type="submit">Sign Out</button>
6   </form>
7 }
```

## See if a user is signed in from a Client Component

*Requires a 'SessionProvider' to be set up in the 'providers.tsx' file*

```
1 'use client'
2
3 import { useSession } from 'next-auth/react';
4
5 export default function Profile() {
6   const session = useSession();
7
8   if (session.data?.user) {
9     return <div>Signed In!</div>
10  } else {
11    return <div>Signed out</div>
12  }
13 }
```

# Recommended Initial Design

1

Identify all the different routes you want your app to have + the data that each shows

2

Make 'path helper' functions

3

Create your routing folders + page.tsx files based on step #1

4

Identify the places where data changes in your app

5

Make empty server actions for each of those

6

Add in comments on what paths you'll need to revalidate for each server action



# Caching

Next implements caching in several locations.

*Can lead to unexpected behavior*

## Data Cache

Responses from requests made with '**fetch**' are stored and used across requests.

## Router Cache

'Soft' navigation between routes are cached in the browser and reused when a user revisits a page.

## Request Memoization

Make two or more 'GET' requests with 'fetch' during a user's request to your server? Only one 'GET' is actually executed.

## Full Route Cache

**At build time**, Next decides if your route is **static** or **dynamic**. If it is static, the page is rendered and the result is stored. In production, users are given this pre-rendered result.

## Time-Based



Every X seconds, ignore the cached response and fetch new data

Every 3 seconds the next request to this route will trigger a rerender

```
export const revalidate = 3;

export default async function Page() {
  const snippets = await db
    .snippets.findMany();

  return <div>{snippets.map(..)}</div>
}
```



**On-Demand**

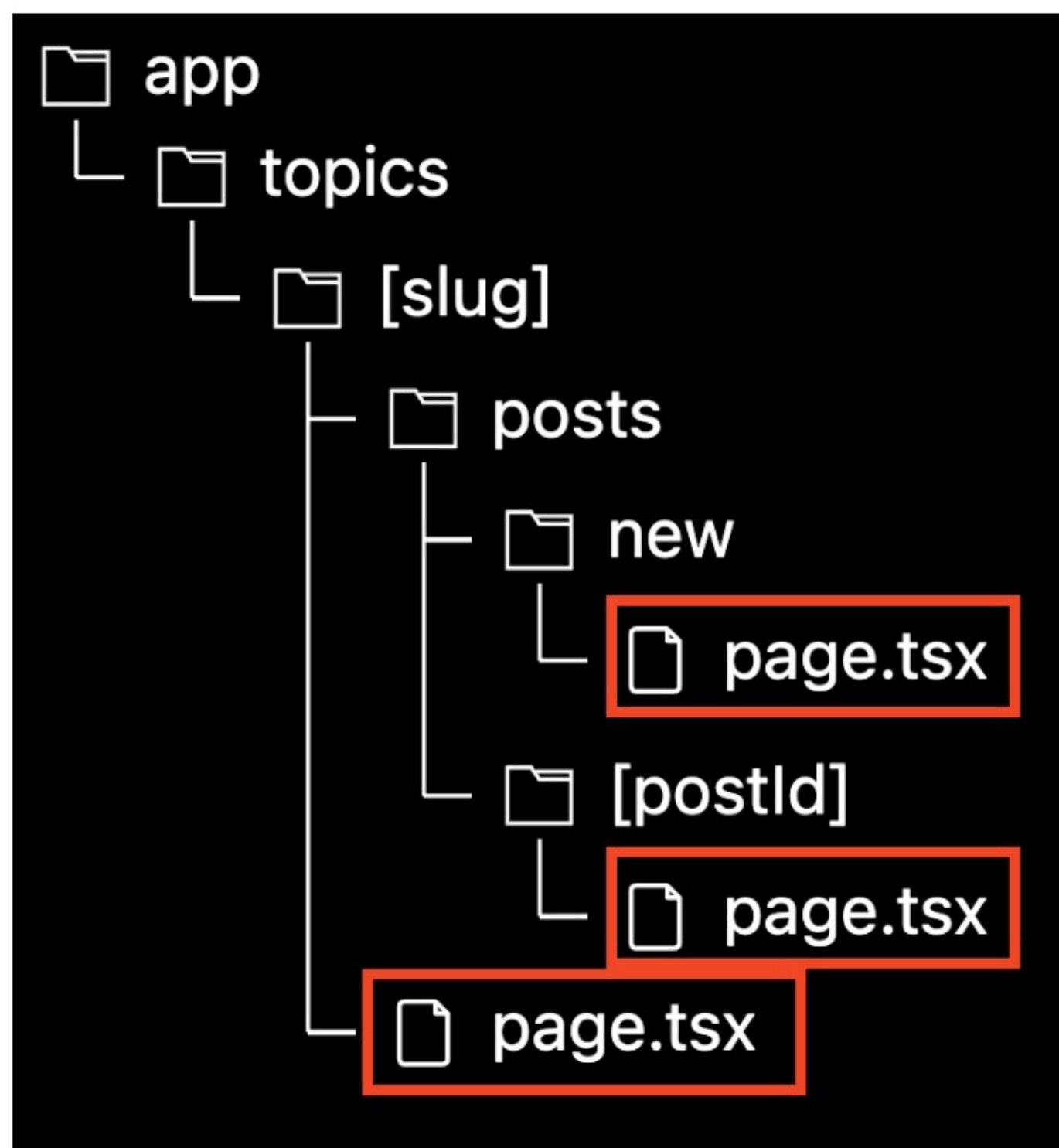


Forcibly purge a cached response

Dump cache for everything in a page

```
import { revalidatePath } from "next/cache";  
  
// When we think data that the '/snippets'  
// route uses has changed...  
revalidatePath('/snippets');
```

Page Name	Path	Data shown
Home Page	/	Many posts, many topics
Topic Show	/topics/[slug]	A single and many posts
Create a post	/topics/[slug]/posts/new	A single topic and many posts
Show a post	/topics/[slug]/posts/[postId]	A single post and many comments



## In Some Component

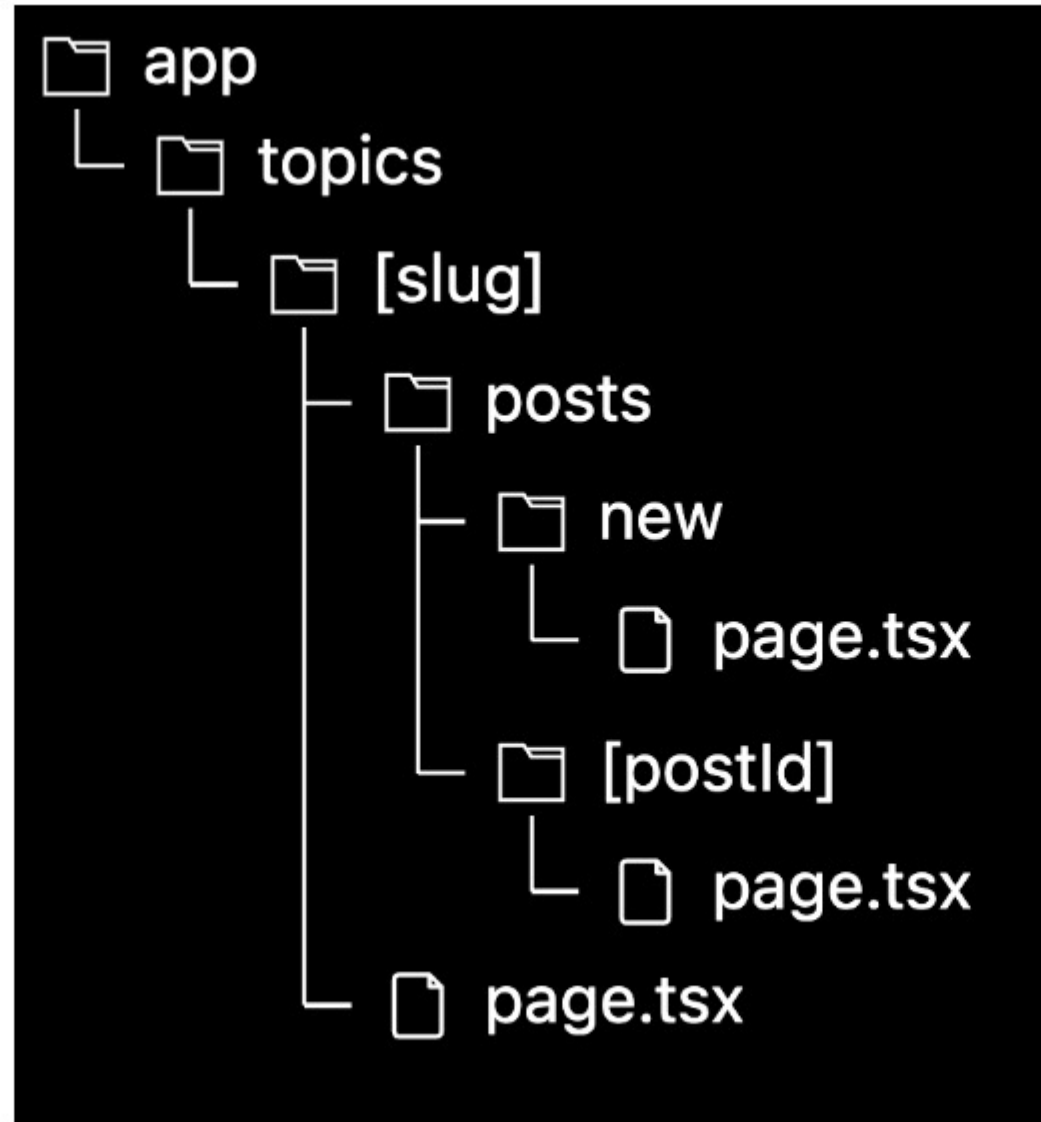
```
<Link href={` /topics/${topic.slug}/posts/new`} >  
  Create  
</Link>
```

## In Some Other Component

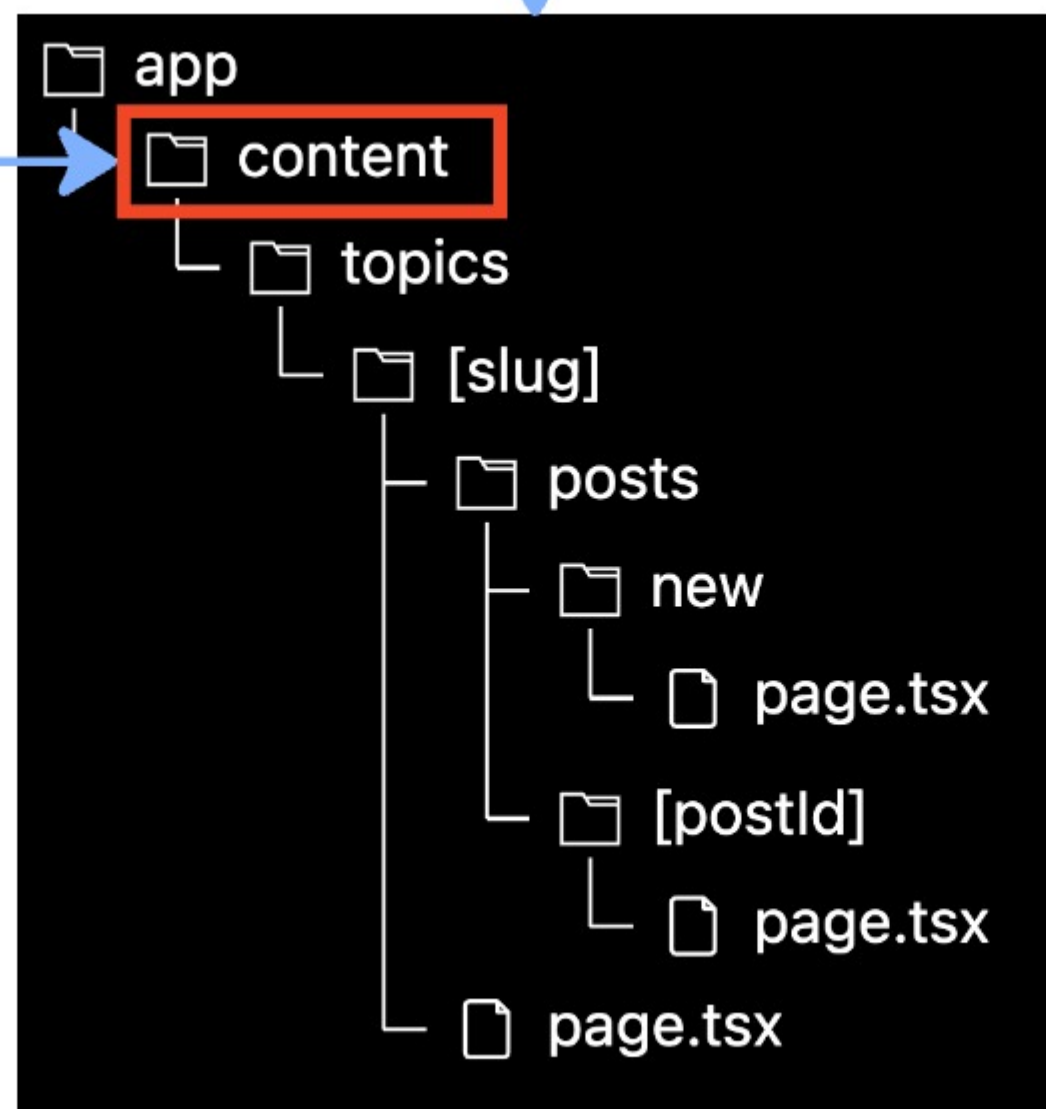
```
<Link href={` /topics/${topic.slug}/posts/${postId}`} >  
  View  
</Link>
```

## In a Server Action

```
revalidatePath(`/topics/${topic.slug}`);
```



New folder, all  
paths change!



## In Some Component

```
<Link href={` /content/topics/${topic.slug}/posts  
  /new`} >  
  Create  
</Link>
```

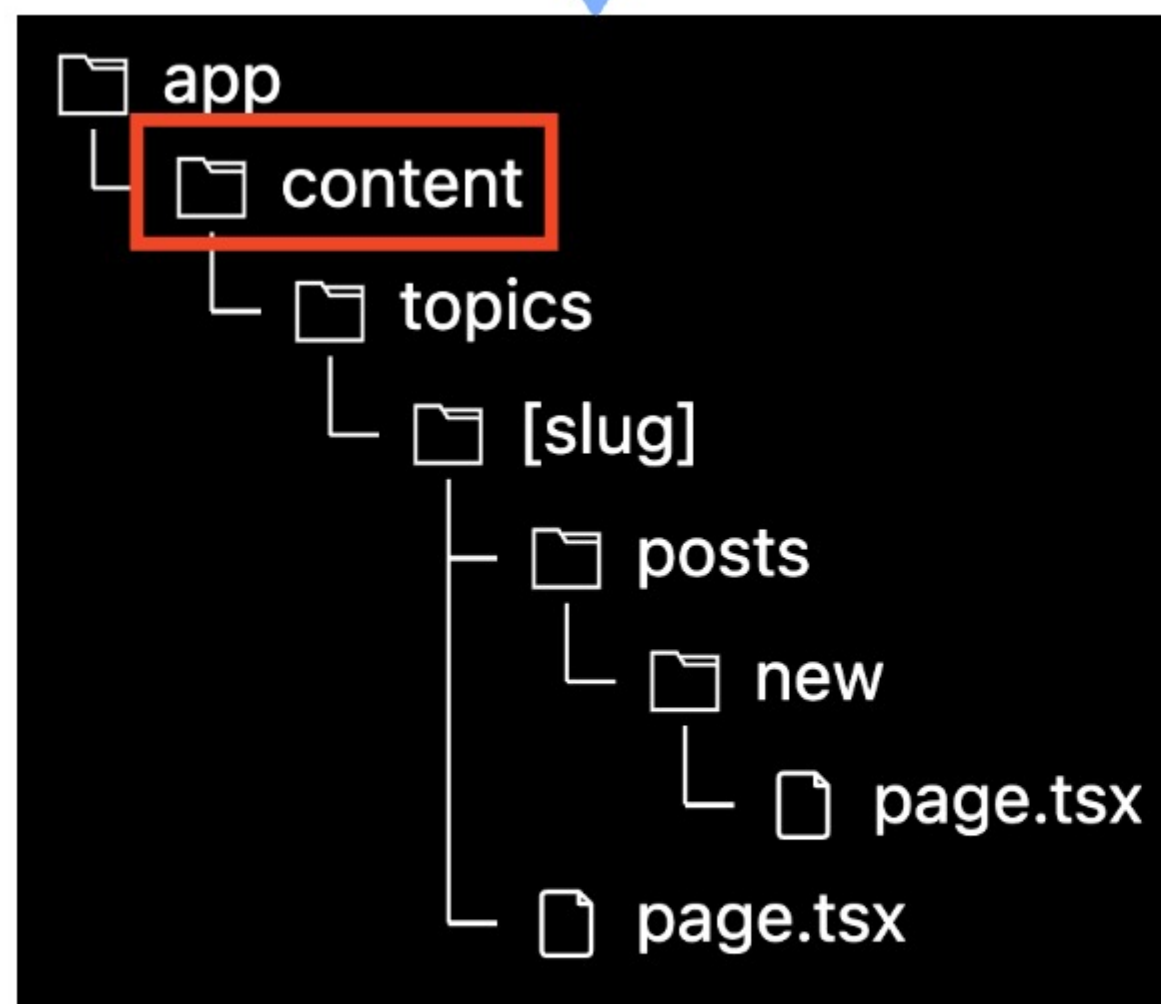
## In Some Other Component

```
<Link href={` /content/topics/${topic.slug}/posts  
  /${postId}`} >  
  View  
</Link>
```

## In a Server Action

```
revalidatePath(`/content/topics/${topic.slug}`);
```





## Path Helpers

```
const paths = {
  homePage() {
    return '/'
  },
  topicShowPath(slug: string) {
    return `/content/topics/${slug}`
  },
  postCreatePath(slug: string) {
    return `/content/topics/${slug}/posts/new`
  },
  postShowPath(slug: string, postId: string) {
    return `/content/topics/${slug}/posts/${postId}`
  }
}
```

### In Some Component

```
<Link href={paths.postCreatePath(topic.slug)}>
  Create
</Link>
```

### In Some Other Component

```
<Link href={`/${topics}/${topic.slug}/posts/${postId}`}>
  View
</Link>
```

### In a Server

```
revalidatePath(`/topics/${topic.slug}`);
```

When we call each server action  
which routes do we need to  
revalidate?

