



Headless WordPress

Use Cases & Best Practices



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President, **OSEDA**

Headless WordPress Experience

Publications & Membership Platforms

ThaiPBS Verify

ThaiPBS Policy Watch

Listed Companies

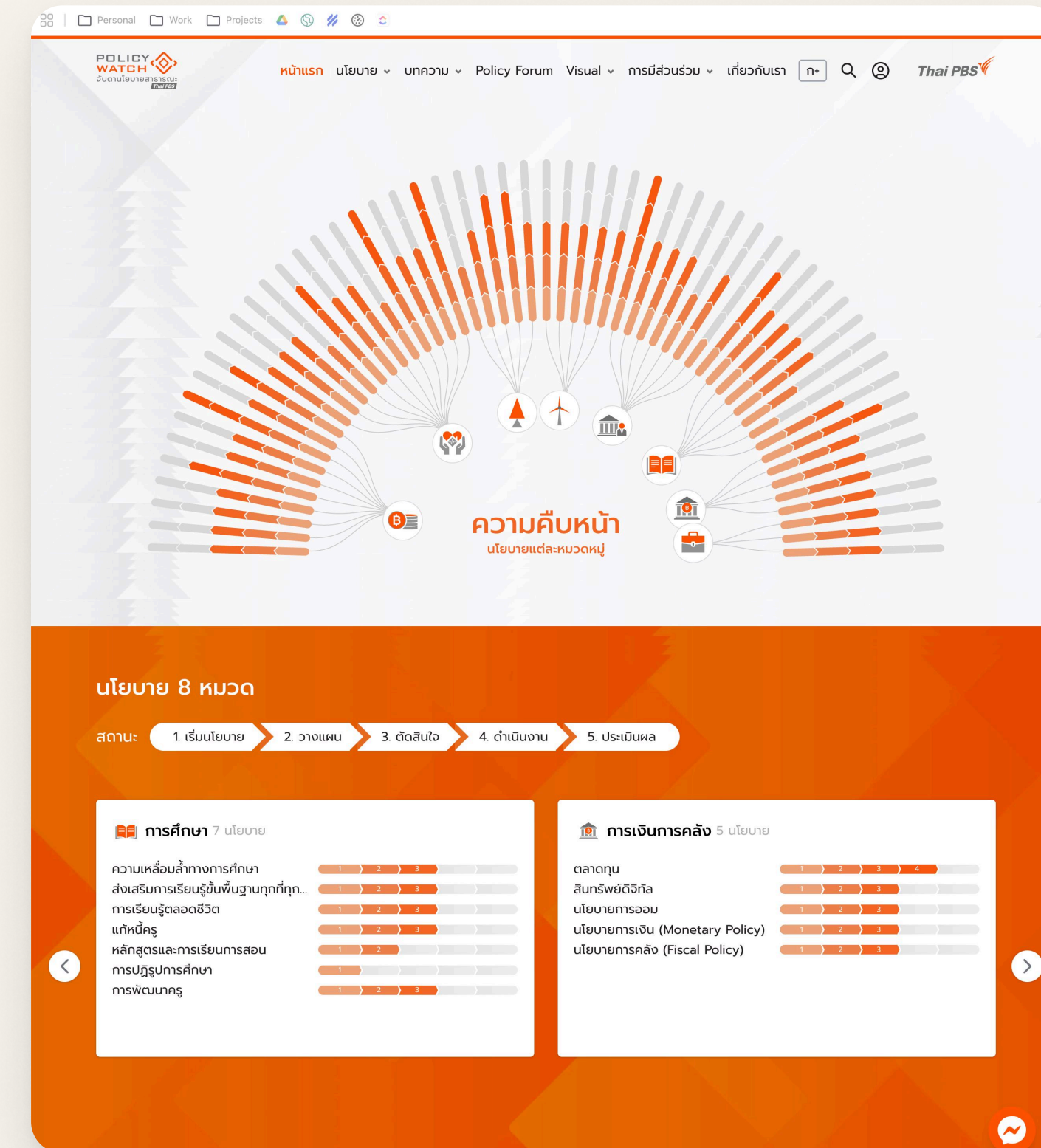
Enterprise-grade corporate sites with **thousands of articles**

Education Organizations

High-traffic information platforms • **10K req/sec**

Digital Agencies

Performance-driven websites • **90+ / 100** PageSpeed scores



Headless WordPress



1

Understanding

What is Headless WordPress?



2

Evaluating Fit

When Headless Makes Sense?



3

Implementation

Visual Builder or Code?

Headless WordPress



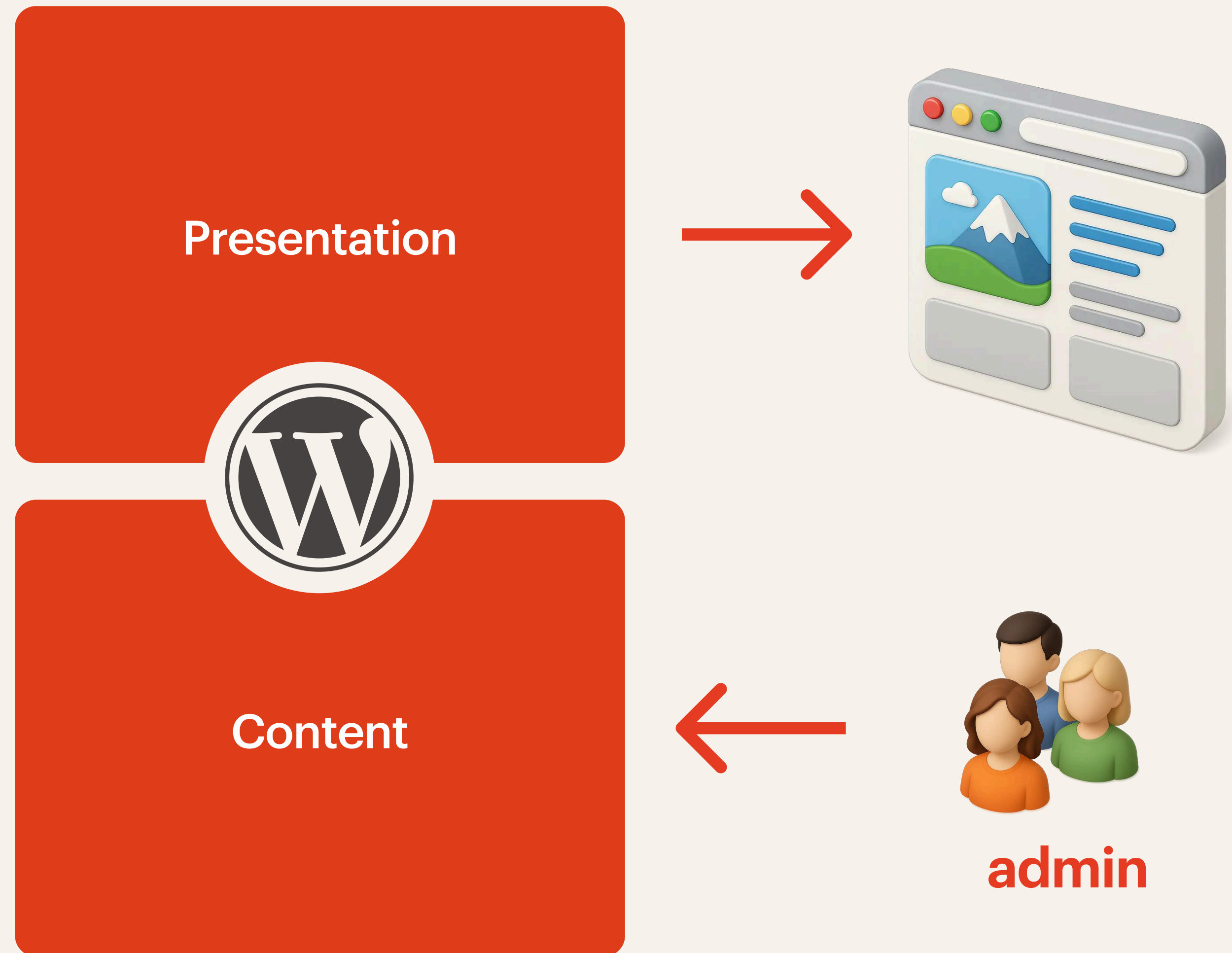
1

Understanding

What is Headless WordPress?

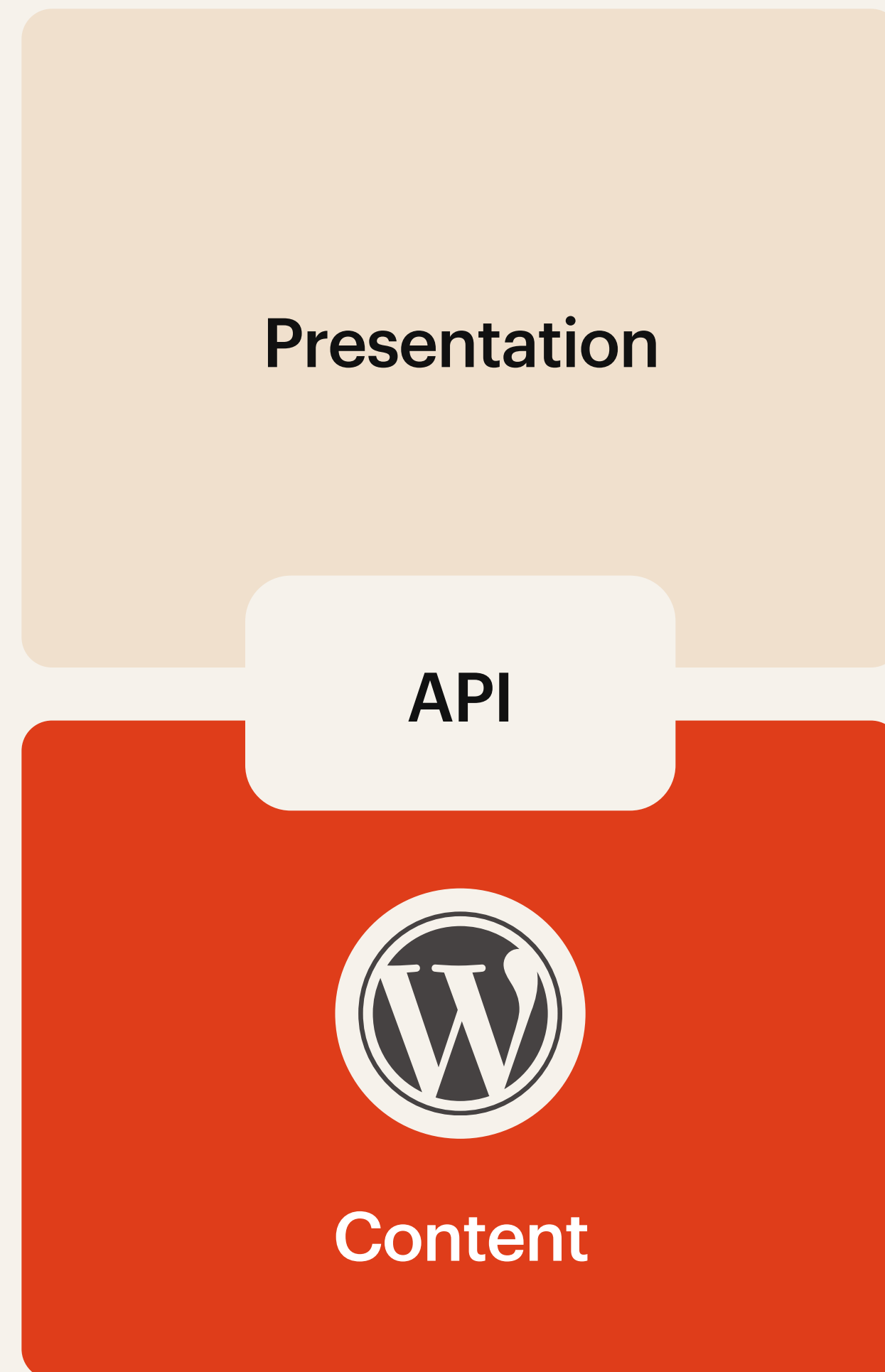
WordPress

A WordPress website consists of two main parts: the content management layer and the presentation layer.



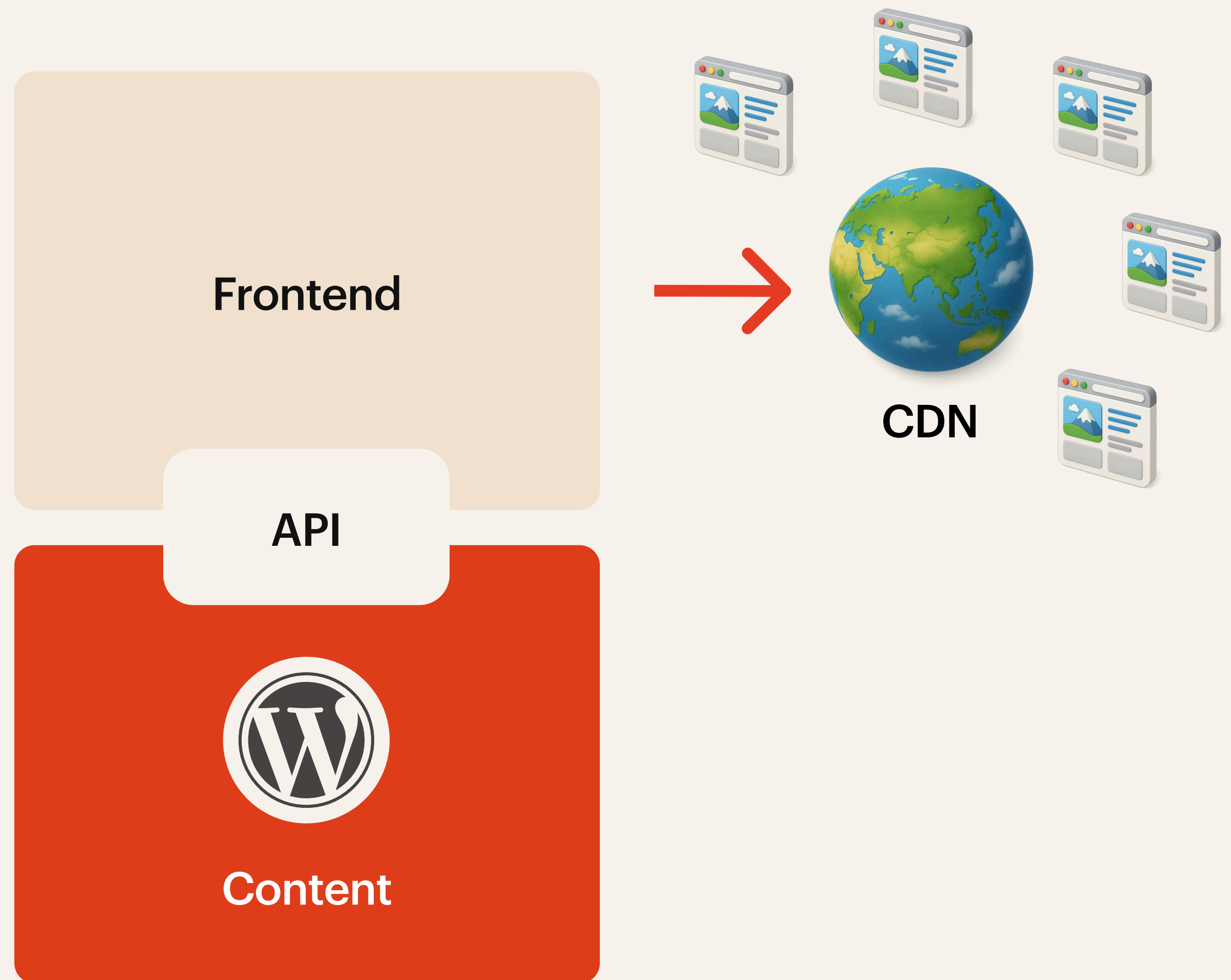
Headless

For large-scale sites, WordPress can become server-heavy. Headless WordPress solves this by using WordPress only as a data source and delivering content via API



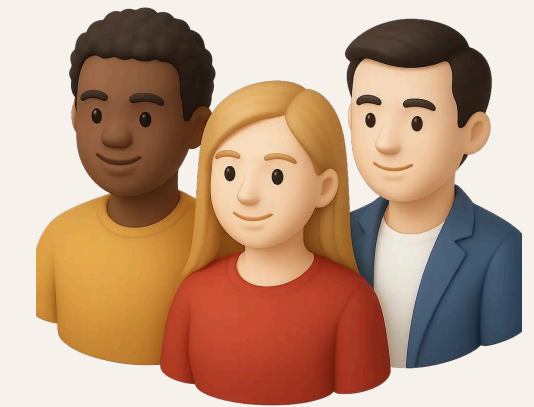
Frontend

The presentation layer is rebuilt with a modern JS frontend (React, Vue). The static frontend is deployed on a global CDN, resulting in much faster load times.



Server

Depends on a dedicated server
10,000 users = 10,000 compute operations

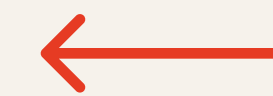
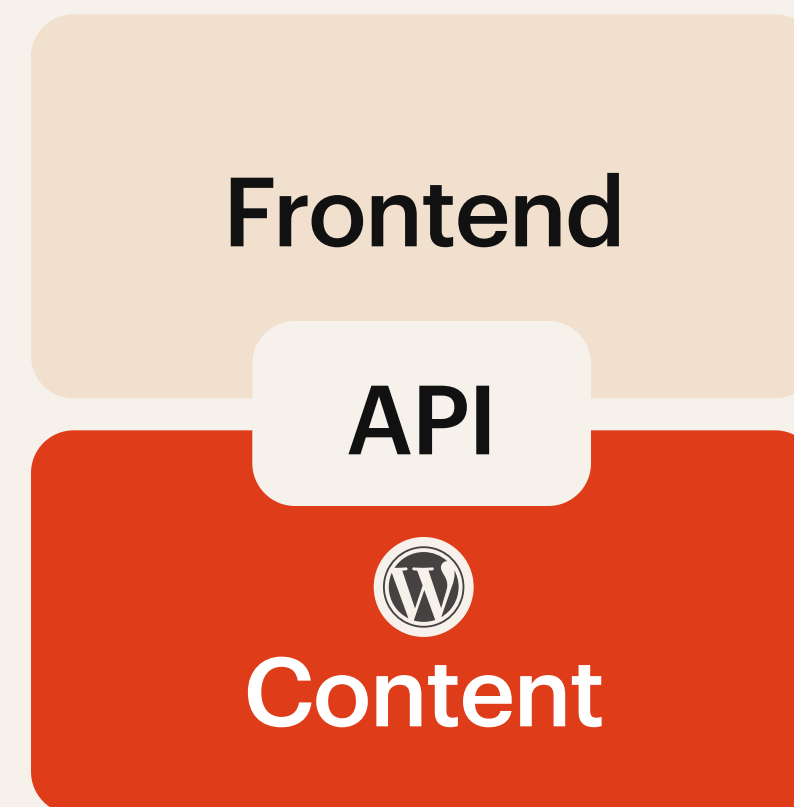


10,000 Req/Sec



Serverless

Does not rely on a fixed server
10,000 users may trigger only a single compute operation



1 Req

Pros



Extremely fast
frontends (SSR/SSG)



Security
WordPress admin hidden



Flexibility
build and connect anything

Cons



More complex
architecture



Two hosting environments
WordPress & Frontend



Many plugins don't work
headless

Headless WordPress



2

Evaluating Fit

When Headless Makes Sense?

Enterprise & Marketing Sites

Thousands of articles

Ultra-fast loading across devices

High-traffic readership

Security-Focused



Performance

Membership Platforms

Integrate with modern user databases

(Supabase, Neon, D1, PocketBase, Firebase, etc.)

Deliver gated or public content
sourced from WordPress

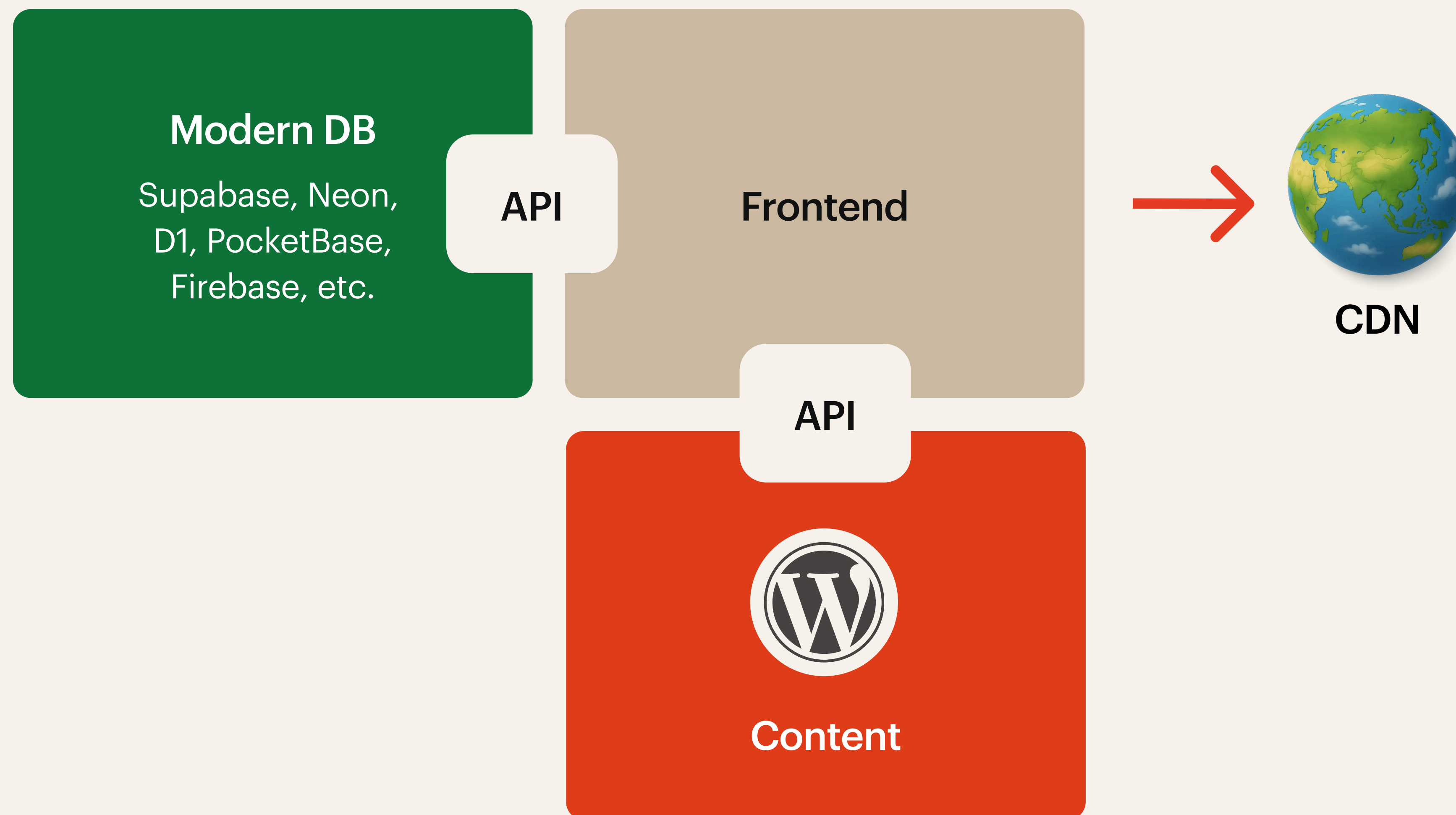


E-commerce Storefronts

WooCommerce, WordPress CPT as Backend
Customize Cart, Checkout and CRM integrations
Deliver significantly faster product pages



Headless WordPress with **External DB**



Why Headless **WordPress**, Not **Other** Headless CMS?

Recommended: webstudio.is/tools/headless-cms-finder →

No Vendor Lock-in - Own Your Data
Flexible & Mature - CPTs, Fields, API
Lower Cost to Build & Maintain

Headless CMS Finder

Compare and filter headless CMS options based on key features and pricing.

- The listed info is for the cloud hosting. Self-hosting may impact price, maintenance, and more.
- This page does NOT contain affiliate links. Just helpful info for choosing a headless CMS. 🍷
- Want help migrating to a new CMS? See our [migration services](#).

Open source Free tier No-code setup Customizable models Images in rich text No maintenance

Filter

30 platforms +

Ghost

A powerful app for professional publishers to create, share, and grow a business around their content.

Type	Bloggng engine
Open source	✓
Free tier	✗
Lowest paid tier	\$31
No-code setup	✓
No maintenance	✓
Flexibility	Low
Customizable models	✗
GraphQL API	✗
REST API	✓
Custom rich text components	✗
Images in rich text	✓
Rich text API formats	HTML

[Report a mistake](#)

Baserow

An open platform to create scalable databases and applications without code.

Type	Tabular
Open source	✓
Free tier	✓
Lowest paid tier	\$12
No-code setup	✓
No maintenance	✓
Flexibility	Moderate
Customizable models	✓
GraphQL API	✗
REST API	✓
Custom rich text components	✗
Images in rich text	✗
Rich text API formats	Markdown

[Report a mistake](#)

Strapi

An open-source, fully customizable, developer-first headless CMS built with 100% JavaScript/TypeScript.

Type	CMS
Open source	✓
Free tier	✗
Lowest paid tier	\$29
No-code setup	✗
No maintenance	✗
Flexibility	High
Customizable models	✓
GraphQL API	✓
REST API	✓
Custom rich text components	✗
Images in rich text	✓
Rich text API formats	HTML JSON

[Report a mistake](#)

Airtable

A low-code platform to build next-gen apps.

Type	Tabular
Open source	✗
Free tier	✓
Lowest paid tier	\$24
No-code setup	✓
No maintenance	✓
Flexibility	Moderate
Customizable models	✓
GraphQL API	✗
REST API	✓
Custom rich text components	✗
Images in rich text	✗
Rich text API formats	HTML JSON Markdown

[Heads up](#)

[Report a mistake](#)

Hygraph

A GraphQL-native headless CMS powering mission-critical applications.

Type	CMS
Open source	✗
Free tier	✓
Lowest paid tier	\$299
No-code setup	✓
No maintenance	✓
Flexibility	Moderate
Customizable models	✓
GraphQL API	✓
REST API	✓
Custom rich text components	✗
Images in rich text	✓
Rich text API formats	HTML JSON Markdown

[Report a mistake](#)

Payload

A headless CMS and application framework built with TypeScript and React.

Type	CMS
Open source	✓
Free tier	✗
Lowest paid tier	\$35
No-code setup	✗
No maintenance	✗
Flexibility	High
Customizable models	✓
GraphQL API	✓
REST API	✓
Custom rich text components	✓
Images in rich text	✓
Rich text API formats	HTML JSON

[Report a mistake](#)

Hvor Blogs

A powerful blogging platform that allows you to create a blog, customize it, and start publishing articles instantly.

Type	Bloggng engine
Open source	✗
Free tier	✗
Lowest paid tier	\$12
No-code setup	✓
No maintenance	✓
Flexibility	Low

WordPress

Open source software which you can use to easily create a beautiful website, blog, or app.

Type	Bloggng engine
Open source	✓
Free tier	Self-host only
Lowest paid tier	Self-host only
No-code setup	✓
No maintenance	✗
Flexibility	High

Tina

An open-source headless CMS for editing websites with Markdown.

Type	CMS (static)
Open source	✓
Free tier	✓
Lowest paid tier	\$29
No-code setup	✗
No maintenance	✗
Flexibility	High



When you **SHOULD NOT** Use Headless?

Small blog/SME with no dev team

Gutenberg/Block Theme already meets needs

Headless WordPress

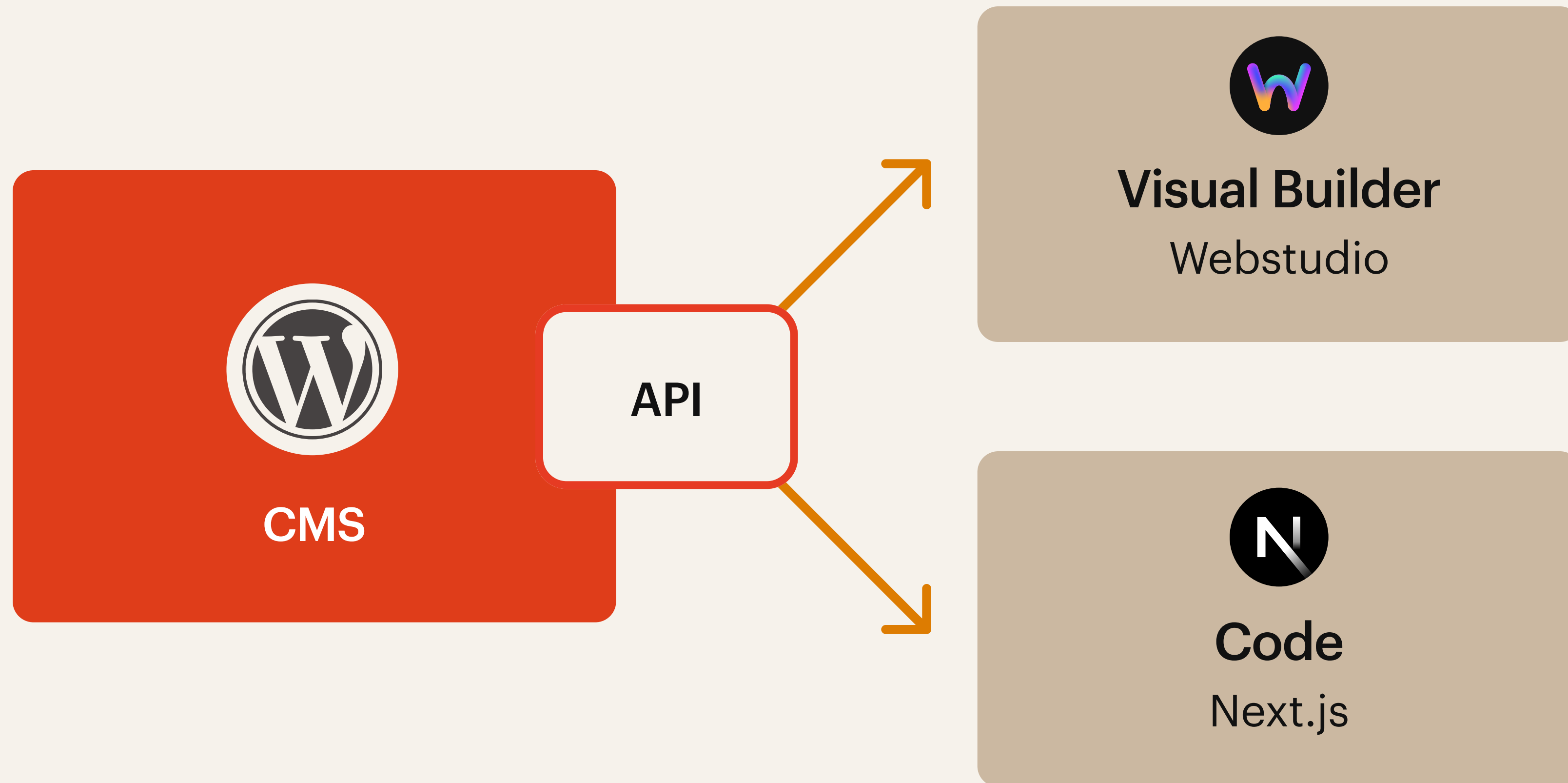


3

Implementation

Visual Builder or Code?

CMS → API → Frontend



CMS → API

✓ REST API ✗ GraphQL



CMS

/wp-json/wp/v2/posts

?per_page=12

&_embed

/wp-json/wp/v2/posts/?_fields=title,author,meta.key_name

/wp-json/wp/v2/posts/?_embed=author,wp:term,wp:featuredmedia

<https://developer.wordpress.org/rest-api/using-the-rest-api/global-parameters/>

Headless Theme Demo

<https://github.com/SeedWebs/headless-theme-demo>

```
functions.php

add_filter('rest_prepare_post', 'headless_add_post_data', 10, 3);
function headless_add_post_data($data, $post, $context)
{
    $id = $data->data['id'];

    $data->data['temp_id'] = $id;

    // Featured Image https://wordpress.stackexchange.com/a/317331
    $featured_image_id = $data->data['featured_media'];
    $featured_image_url = wp_get_attachment_image_src($featured_image_id, 'original');
    if ($featured_image_url) {
        $data->data['featured_image_url'] = $featured_image_url[0];
    }

    // Category
    $categories = get_the_category($id);
    if ($categories) {
        $data->data['categories_info'] = $categories;
    }

    // Tags
    $tags = get_the_tags($id);
    if ($tags) {
        $data->data['tags_info'] = $tags;
    }
}
```

```
functions.php

add_filter('rest_post_query', 'headless_filter_by_category_slug', 10, 3);
function headless_filter_by_category_slug($args, $request)
{
    // Usage: /wp-json/wp/v2/posts?category_slug=news
    if (isset($request['category_slug'])) {
        $category_slug = sanitize_text_field($request['category_slug']);
        $args['tax_query'] = [
            [
                'taxonomy' => 'category',
                'field'     => 'slug',
                'terms'     => $category_slug,
            ]
        ];
    }
    return $args;
}
```



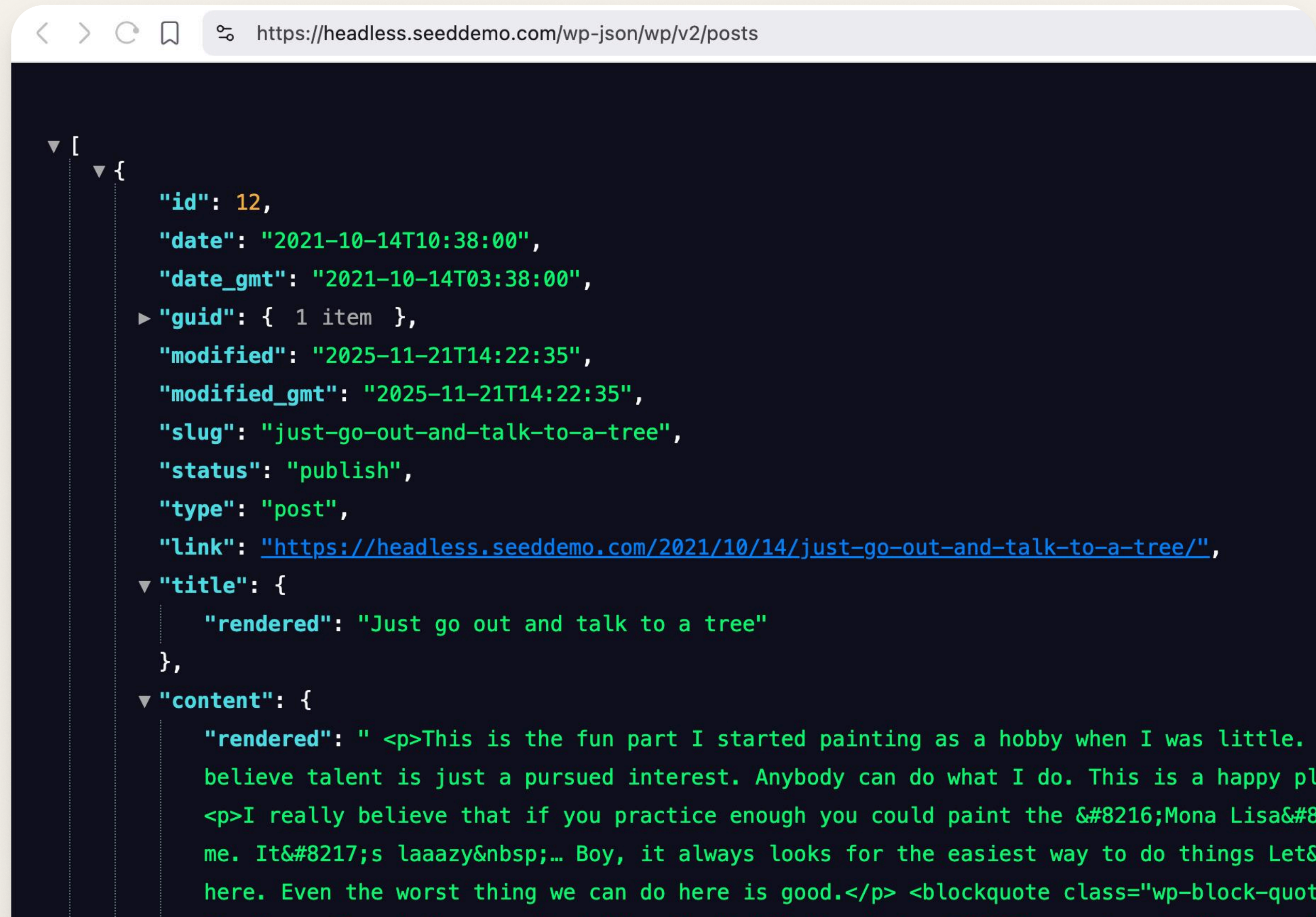
Add Post Data



Add Filter by Slug

Headless Site Demo

<https://headless.seeddemo.com/wp-json/wp/v2/posts>

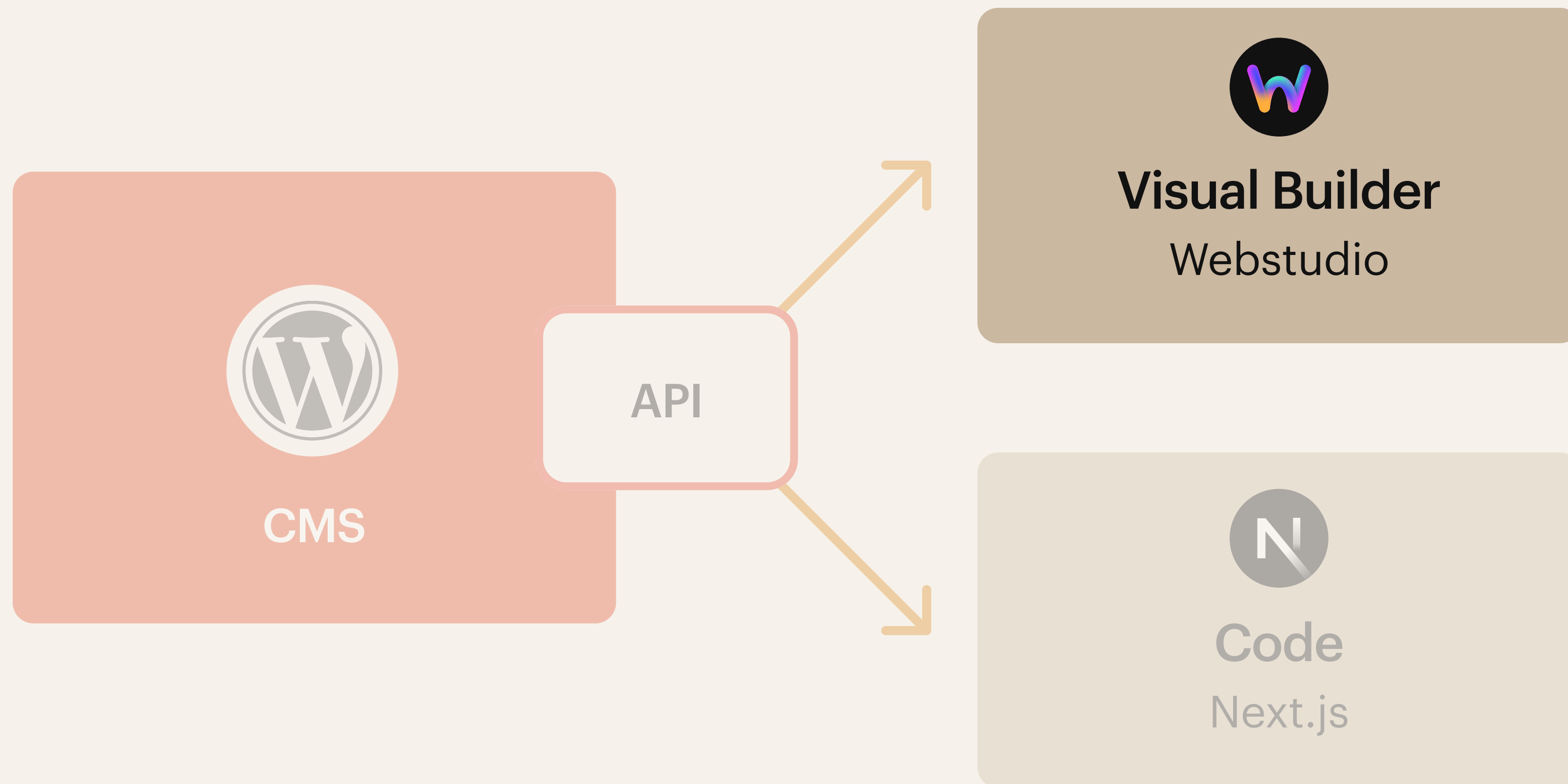


```
[{"id": 12, "date": "2021-10-14T10:38:00", "date_gmt": "2021-10-14T03:38:00", "guid": {"1 item": true}, "modified": "2025-11-21T14:22:35", "modified_gmt": "2025-11-21T14:22:35", "slug": "just-go-out-and-talk-to-a-tree", "status": "publish", "type": "post", "link": "https://headless.seeddemo.com/2021/10/14/just-go-out-and-talk-to-a-tree/", "title": {"rendered": "Just go out and talk to a tree"}, "content": {"rendered": "<p>This is the fun part I started painting as a hobby when I was little. I believe talent is just a pursued interest. Anybody can do what I do. This is a happy place. I really believe that if you practice enough you could paint the 'Mona Lisa' here. It's laazy&nbsp;... Boy, it always looks for the easiest way to do things Let&nbsp;here. Even the worst thing we can do here is good.</p> <blockquote class='wp-block-quot"}}
```

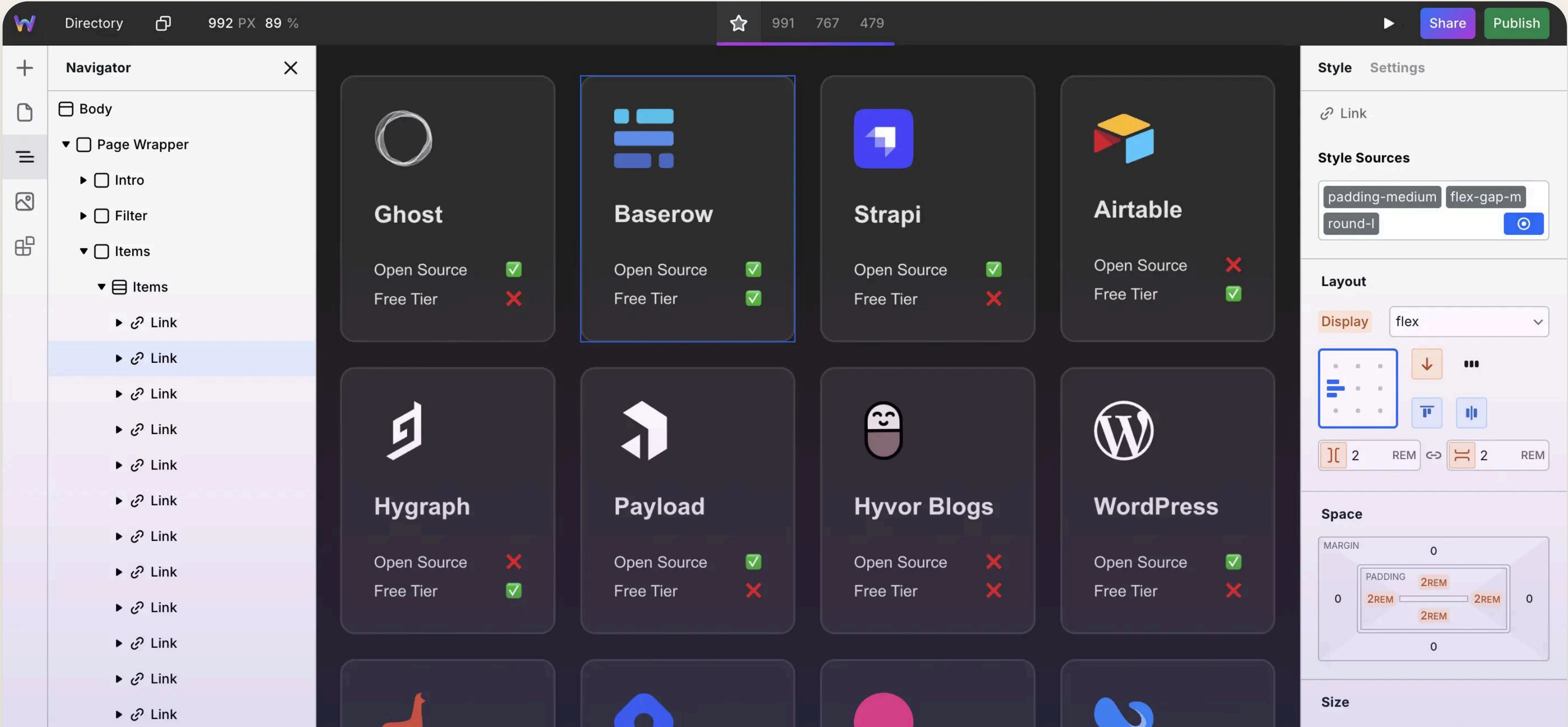


```
{ "excerpt": { "rendered": "<p>This is the fun part I started painting as a hobby when I was little. I believe talent is just a pursued interest. Anybody can do what I do.</p> ", "protected": false }, "author": 4, "featured_media": 99, "comment_status": "open", "ping_status": "open", "sticky": false, "template": "", "format": "standard", "meta": { "1 item": true }, "categories": [ 3, 4 ], "tags": [ ], "class_list": [ 9 items ], "temp_id": 12, "featured_image_url": "https://headless.seeddemo.com/wp-content/uploads/2021/01/post-12.webp", "categories_info": [ { "term_id": 3, "name": "Photo", "slug": "photo", "term_group": 0, "term_taxonomy_id": 3,
```

Visual Builder



Webstudio.is



WordPress & Webstudio

Headless WordPress lets WordPress handle content, while the website's UI is built with a faster, modern frontend. It's the same editor you already know, but with performance, security, and flexibility boosted by today's web technologies.

In this demo, WordPress serves as the backend CMS, while the frontend is built with Webstudio to deliver a fast, modern, and responsive experience.

Latest Blog



Photo Story

Just go out and talk to a tree



Story

At home you have unlimited time



Story

Get tough with it



Navigator

 Global Root

 `<body>`

> Header

- > ☐ Banner

▼ ☐ Latest Blog

H Title

▼ ☐ Cards

Collection

▼ ☐ Card

▼ banner

 Image

▼ ☐ terms

Collection

- > ☐ term

> ☐ term

```
> H title
```

>  Card

>  Card

> ☐ Footer

CSS Preview

```
/* Style Sources */
padding-left: 20px;
padding-right: 20px
/* Cascaded */
font-size: 18px;
margin-left: auto;
margin-right: auto;
max-width: 1200px;
width: 100%
```



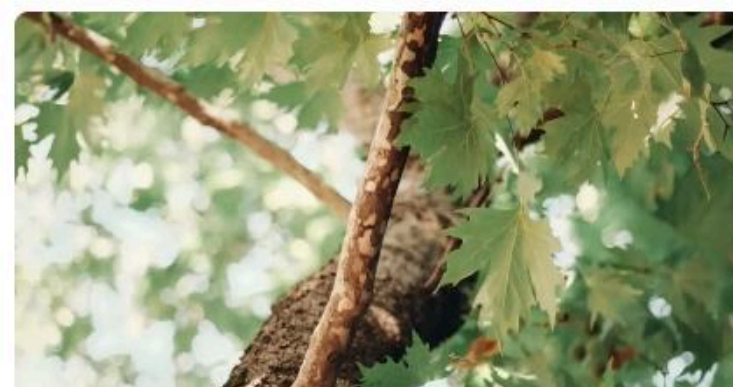
Headless WordPress [Home](#) [Blog](#) [About](#)

WordPress & Webstudio

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Latest Blog



Style Settings

☐ Banner

Style Sources

container

Layout

Display block

Flex Child

Align

Sizing

Order

Space

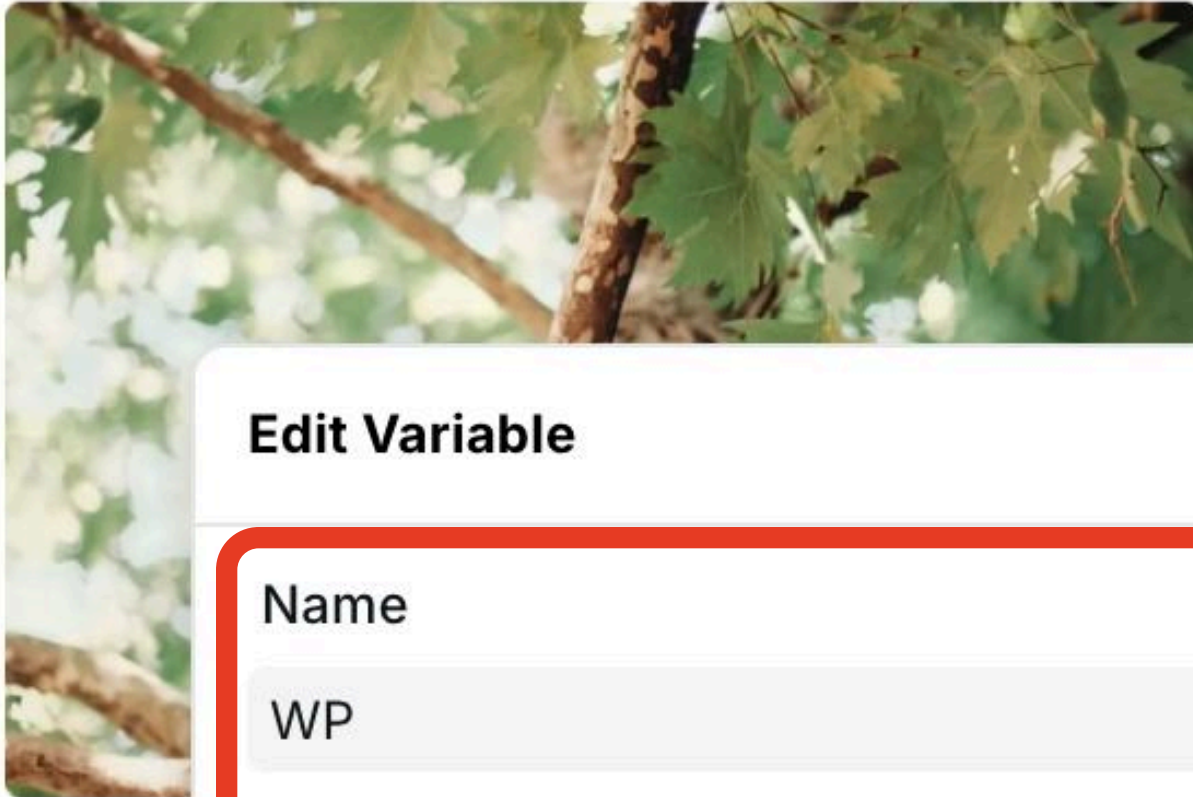
The diagram illustrates a box model with the following dimensions:

- MARGIN:** 0 (top, bottom, left, right)
- PADDING:** 20px (left, right)
- Content Width:** auto (left), auto (right)

Size

Width	Height
100 %	auto
Min Width	Min Height
auto	auto
Max Width	Max Height
1200 PX	none
Aspect Ratio	auto


Overflow | A



Edit Variable

Name

WP



A decorative still life composition. A brown leather satchel with a yellow strap is positioned diagonally across the frame. It rests on an open book with visible text. A branch of pink and white blossoms, possibly cherry or apple, arches over the book and satchel, adding a touch of nature and color to the scene.

1T14:22:35",
11-21T14:22:35",
nd-talk-to-a-tree",

om/2021/10/14/just-go-out-

out and talk to a tree"

is is the fun part I
when I was little. I
talent. I believe talent
Anybody can do what I do.

Name	WP		
Type	Resource		
Method	Get		
URL ⓘ	https://headless.seiddemo.com/wp-json/wp/v2/posts		
Search Params	<table><tr><td>per_page</td><td>12</td></tr></table>	per_page	12
per_page	12		

```

{
  "ok": true,
  "status": 200,
  "statusText": "OK",
  "data": [
    {
      "id": 12,
      "date": "2021-10-14T10:38:00",
      "date_gmt": "2021-10-14T03:38:00",
      "guid": "https://headless.seiddemo.com/2021/10/14/just-go-out-and-talk-to-a-tree/",
      "modified": "2025-11-21T14:22:35",
      "modified_gmt": "2025-11-21T14:22:35",
      "slug": "just-go-out-and-talk-to-a-tree",
      "status": "publish",
      "type": "post",
      "link": "https://headless.seiddemo.com/2021/10/14/just-go-out-and-talk-to-a-tree/",
      "title": {
        "rendered": "Just go out and talk to a tree"
      },
      "content": {
        "rendered": "\n<p>This is the fun part I started painting as a hobby when I was little. I didn't know I had any talent. I believe talent is just a pursued interest. Anybody can do what I do."
      }
    }
  ]
}

```

<body>

Name

<body>

Show

☒

Properties & Attributes

+

Tag

body

▼

ID

Class

Data Variables

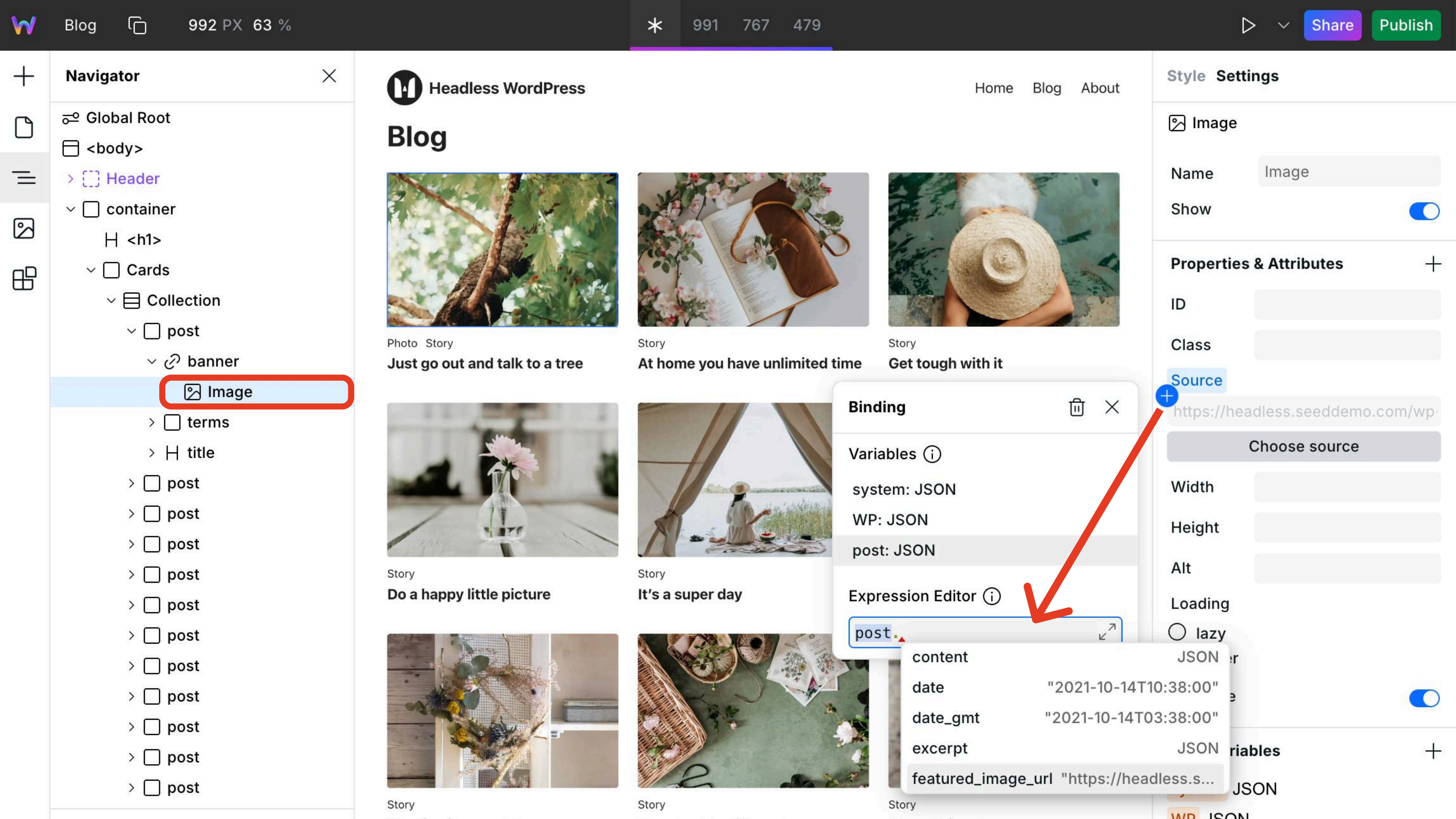
+

WP

JSON

system

JSON



W

Blog

992 PX 63 %

*

991

767

479

Share

Publish

+

Navigator

Global Root

<body>

> Header

> container

> <h1>

> Cards

> Collection

> post

> banner

Image

> terms

> title

> post

> post

> post

> post

> post

> post

> post

> post

> post

> post

> post

Headless WordPress

Home Blog About

Blog

Photo Story

Just go out and talk to a tree

Story

At home you have unlimited time

Story

Get tough with it

Story

Do a happy little picture

Story

It's a super day

Story

Story

Style Settings

Image

Name Image

Show ☒

Properties & Attributes

ID

Class

Source

Choose source

Width

Height

Alt

Loading

lazy ☐

Variables

Binding

Variables

system: JSON

WP: JSON

post: JSON

Expression Editor

post

content

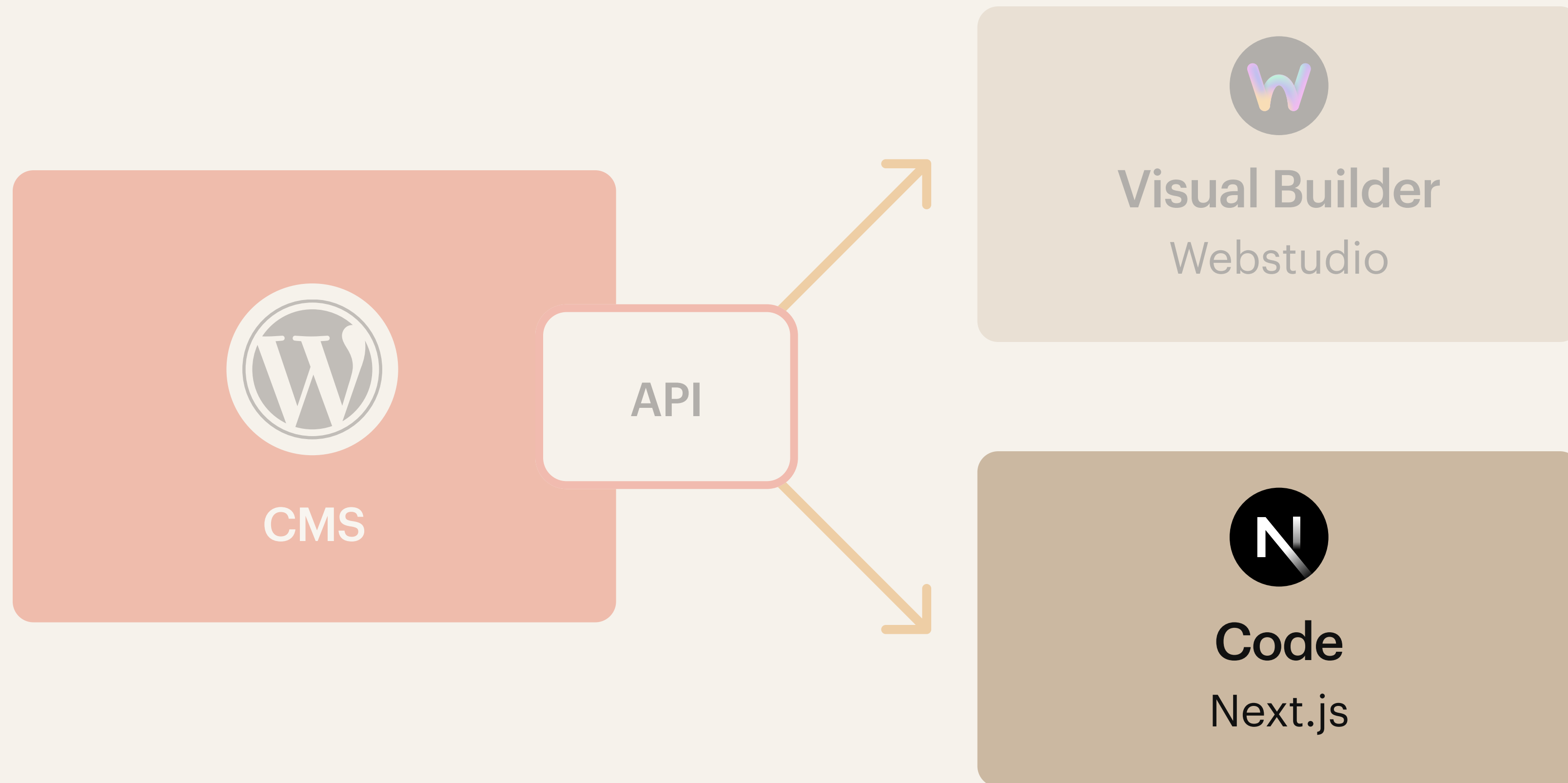
date "2021-10-14T10:38:00"

date_gmt "2021-10-14T03:38:00"


excerpt

featured_image_url "https://headless.s..."

Code with JS Framework



Next.js

 / **NEXT.js**

Showcase Docs Blog Templates ↗ Enterprise ↗

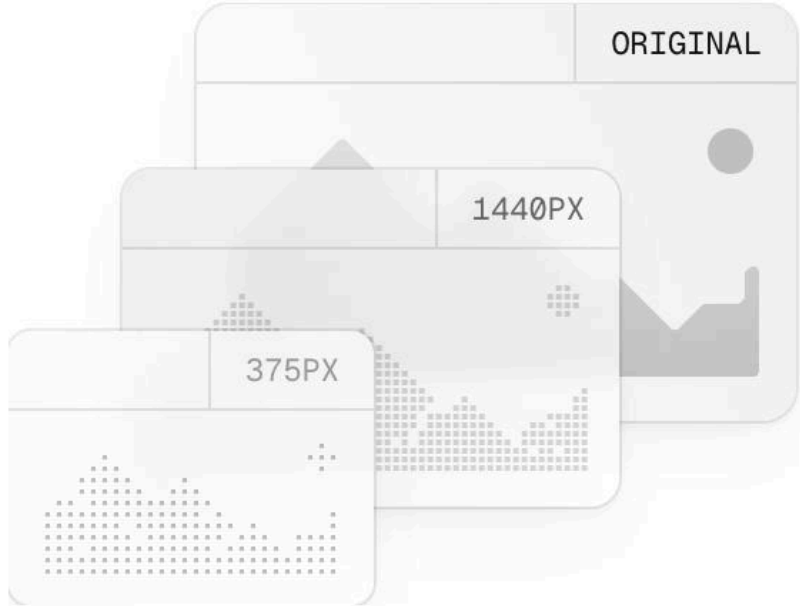
Search documentation... 🔍

▲ Deploy

Learn

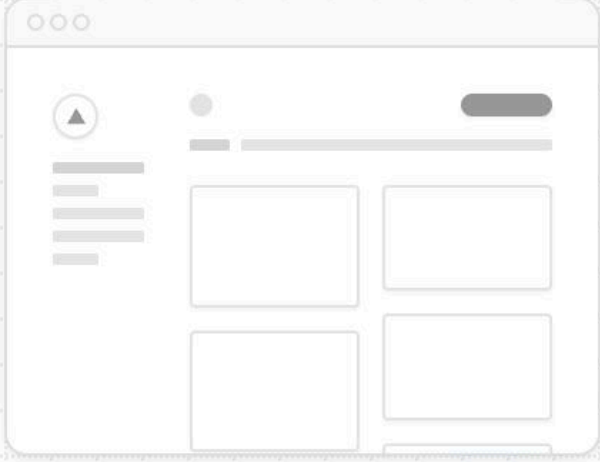
What's in Next.js?

Everything you need to build great products on the web.



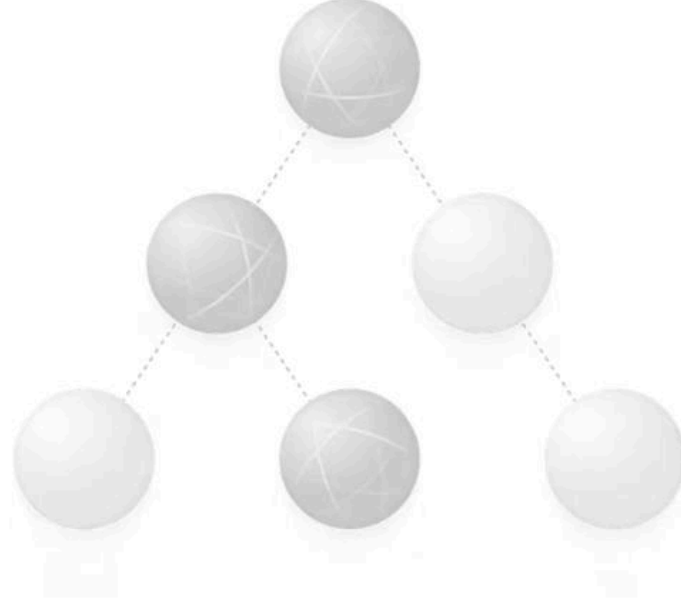
Built-in Optimizations

Automatic Image, Font, and Script Optimizations for improved UX and Core Web Vitals.



Dynamic HTML Streaming

Instantly stream UI from the server, integrated with the App Router and React Suspense.



React Server Components

Add components without sending additional client-side JavaScript. Built on the latest React features.

Data Fetching

Make your React component async and await your data. Next.js supports both server and client data fetching.

CSS Support

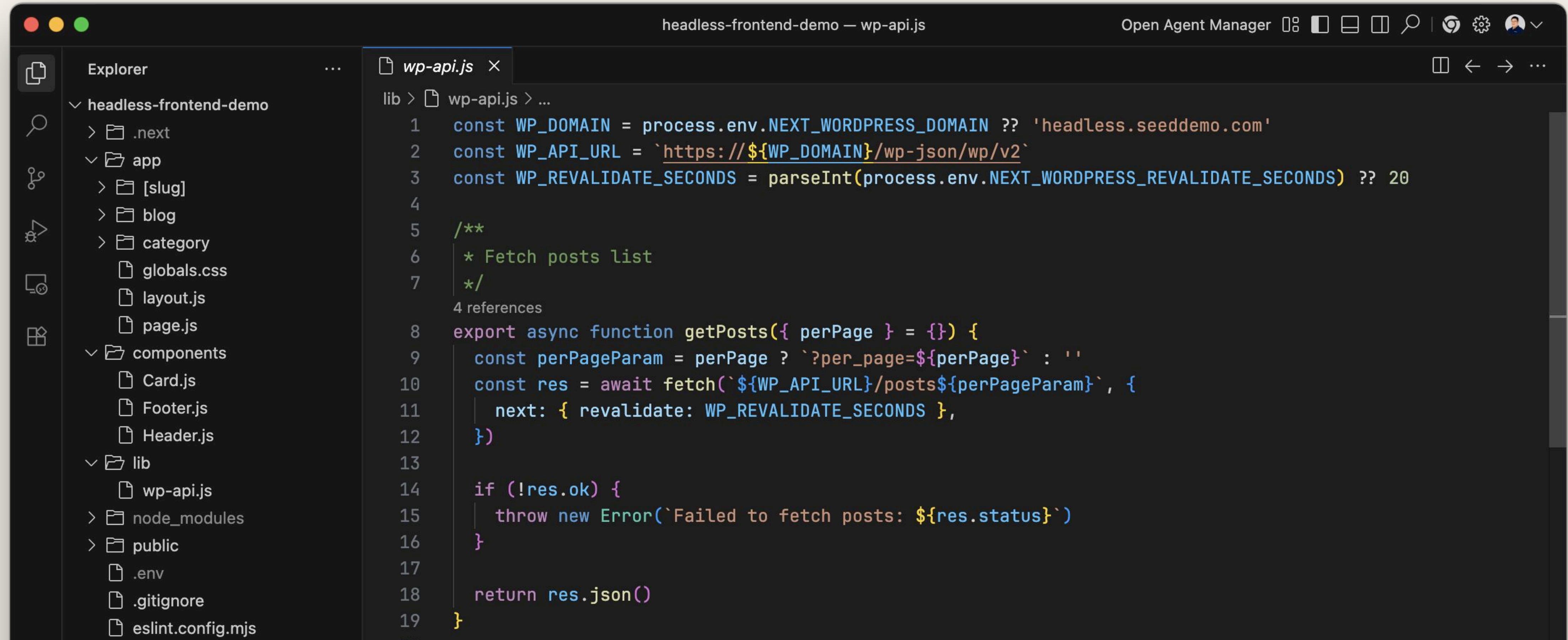
Style your application with your favorite tools, including support for CSS Modules, Tailwind CSS, and popular community libraries.

Client and Server Rendering

Flexible rendering and caching options, including Incremental Static Regeneration (ISR), on a per-page level.

Headless Next.js Demo

<https://github.com/SeedWebs/headless-frontend-demo>



The screenshot shows a code editor window titled "headless-frontend-demo — wp-api.js". The left sidebar displays the "Explorer" view of the project structure:

- headless-frontend-demo
 - .next
 - app
 - [slug]
 - blog
 - category
 - globals.css
 - layout.js
 - page.js
 - components
 - Card.js
 - Footer.js
 - Header.js
 - lib
 - wp-api.js
 - node_modules
 - public
 - .env
 - .gitignore
 - eslint.config.mjs

The main editor area shows the content of `wp-api.js`:

```
1  const WP_DOMAIN = process.env.NEXT_WORDPRESS_DOMAIN ?? 'headless.seeddemo.com'
2  const WP_API_URL = `https://${WP_DOMAIN}/wp-json/wp/v2`
3  const WP_REVALIDATE_SECONDS = parseInt(process.env.NEXT_WORDPRESS_REVALIDATE_SECONDS) ?? 20
4
5  /**
6   * Fetch posts list
7   */
8  export async function getPosts({ perPage } = {}) {
9    const perPageParam = perPage ? `?per_page=${perPage}` : ''
10   const res = await fetch(`${WP_API_URL}/posts${perPageParam}`, {
11     next: { revalidate: WP_REVALIDATE_SECONDS },
12   })
13
14   if (!res.ok) {
15     throw new Error(`Failed to fetch posts: ${res.status}`)
16   }
17
18   return res.json()
19 }
```

Webstudio or Next.js?



Webstudio



Next.js

Speed to Launch	✦✦✦✦✦	✦✦✦
Custom Animation & UI	✦✦✦	✦✦✦✦✦
Designers can build	✦✦✦✦✦	✦
App-like features	✦	✦✦✦✦✦
Development cost	💰	💰💰💰

API Best Practices

REST is Standard, easy to use and cache

WPGraphQL for advance & rare cases

Custom fields, Post Types - use **Metabox** or **ACF**

Cache aggressively (Redis / CDN)

Monitor API **Performance**

Security Best Practices

Disable REST routes you don't use

Only expose necessary **endpoints**

Remove unused **plugins**

Hide wp-admin + use passwordless login

Offload media to R2/S3 to hide WordPress from the public.

Headless WordPress Summary



1

Content Freedom

With More Complex Architecture



2

Performance

With Custom UX



3

Rebuild Frontend

With Webstudio or Next.js



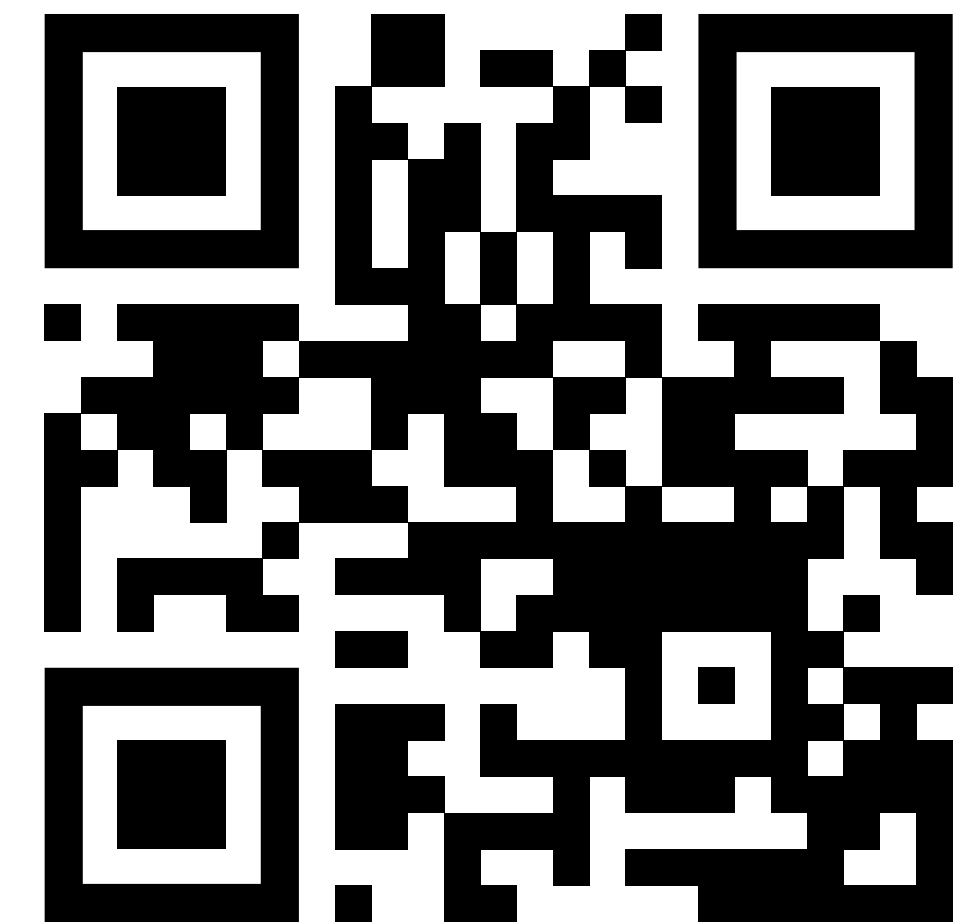
Q & A

Headless WordPress
Use Cases & Best Practices



Chakkrisn **Menn** Talawat

SEED  WEBS  OSEDA



Slides & Links
seedwebs.com/hw