Purwadhika
Digital Technology School

Full Stack Web Development

Introduction to Headless CMS & Exercise - Blogs

Job Connector Program

What is CMS?

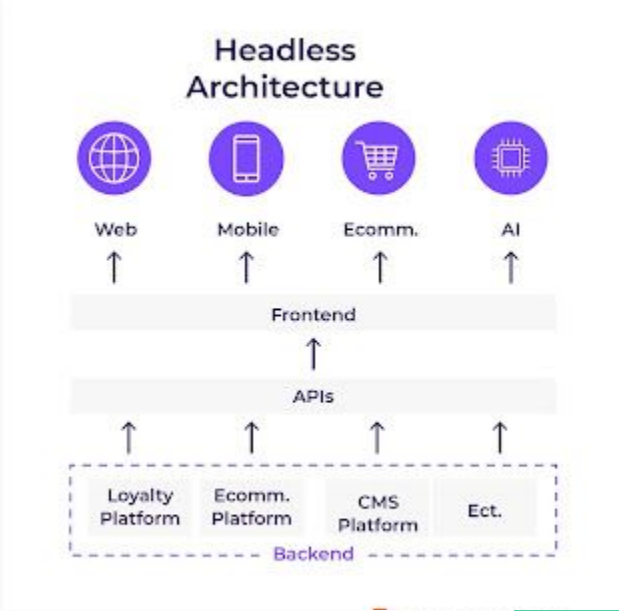
A content management system (CMS) is software that helps users create, manage, and modify content on a website without the need for technical knowledge. In other words, a CMS lets you build a website without needing to write code from scratch (or even know how to code at all).

Instead of building your own system for creating web pages, storing images, and other functions, the content management system handles all that basic infrastructure stuff for you so that you can focus on more forward-facing parts of your website.

Traditional CMS vs Headless CMS

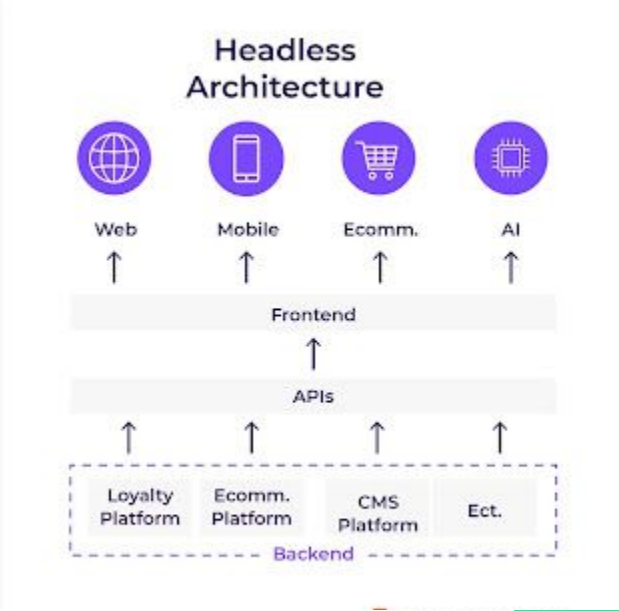
Headless CMS disconnects the back end (aka the “body”) of the platform where content is created, managed, and stored from the front-end (aka the “head”) of the platform where content is formatted, designed, and distributed. Application programming interface (API) technology enables both sides of the platform to communicate and work together as needed – at the same time.

This structure makes a headless CMS flexible and approachable for businesses with heavy and variable content needs.



Traditional CMS vs Headless CMS

Traditional content management systems empower users to create, manage, and publish content. The main difference from headless CMSes is that traditional systems are monolithic in structure, meaning the back end and front end are tightly coupled in a single technical area. Once a content asset has been published, it's in its final state in this structure. In a traditional system, content isn't stored in modules, making content assets difficult to reformat or reuse. Adding new functionality or features to a traditional CMS is also difficult as it requires using a plugin versus an integration.

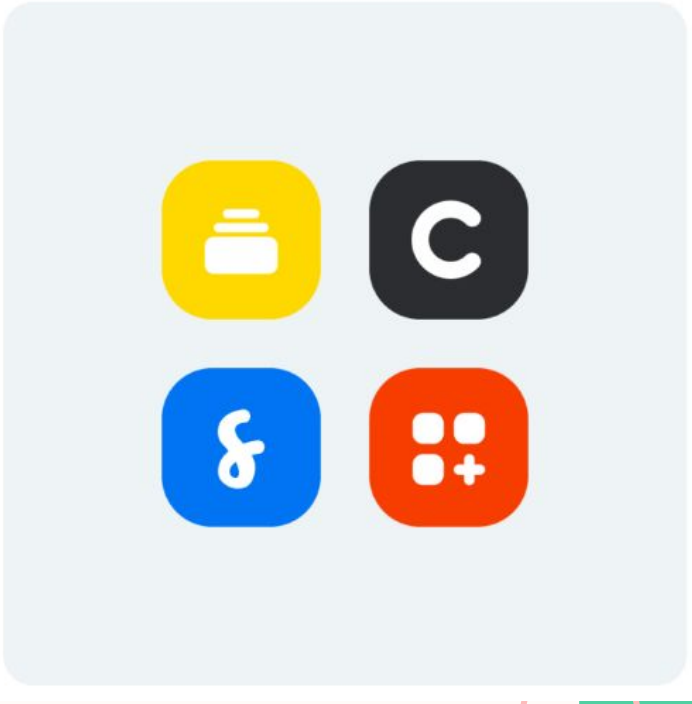


Contentful CMS

Contentful is the intelligent composable content platform that enables both technical and non-technical users to easily create, manage, publish, and expand distinct content experiences for any digital channel — all with speed and scale within one comprehensive and unified content system.

Contentful's visually engaging interfaces are tailored for every contributor — making it intuitive and simple for developers, content editors, marketers, and writers alike to all play an integral role in shaping and delivering compelling experiences together.

Find out more: https://www.contentful.com/

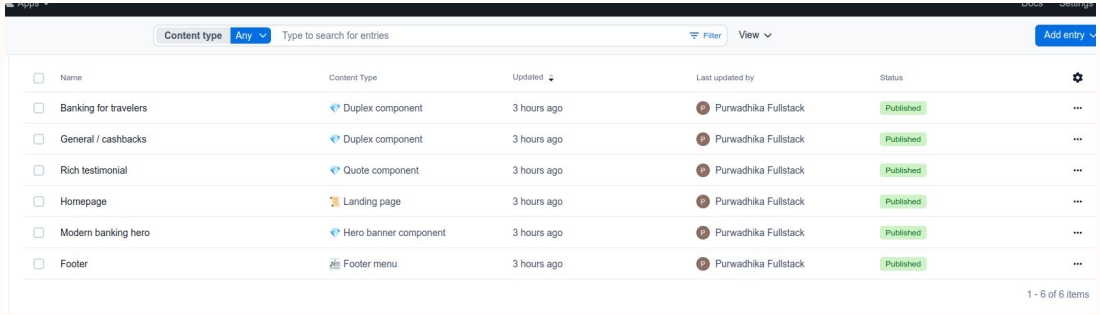


Contentful CMS

Lets register first into Contentful in order to have an access to the tools. Find out in here: https://be.contentful.com/login/

Since you do not have an account in contentful, perform the register step first. Follow the instruction from the website in order to have a contentful account.

Perform login after successfully register. Since you successfully login to the system, you could access the dashboard. There are dummy data generated. You can create or modify the data through this dashboard. This sample of data uses to provide personal blogs data on the website.

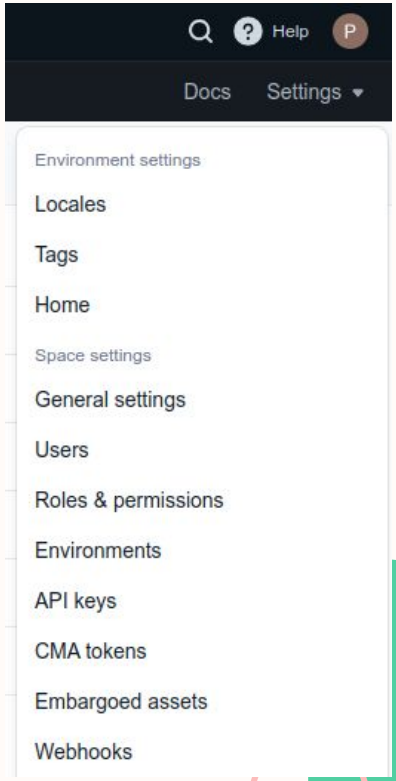


Contentful CMS

Since you already have an Contentful account, let's find out how to fetch data from the CMS itself using network call.

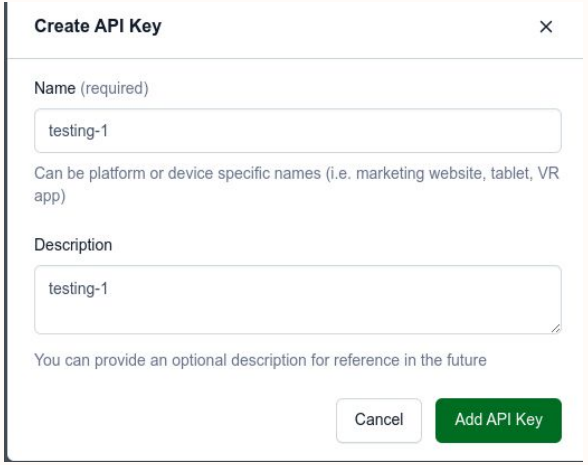
Let's open up postman in order to perform GET request to the CMS. Before we test the API, you need to setup the token headers for the request.

1. Open up your contentful spaces and go to the right side of the navbar. You will find settings. Click on that menu, and then click on API keys
2. Click on button "Add API Key" on the right side.



Contentful CMS

1. Input name and description on popup dialog that shows, and click Add API Key button on the bottom side.
2. The detail form would show up, fill the blank field and let the rest of the field stays in default (modify if you have to)
3. Now your API key are ready to use.



Contentful CMS

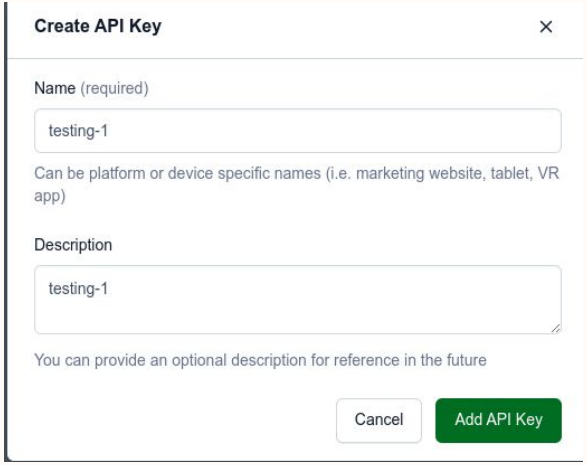
1. Go to postman, and use this base url to fetch the data from contentful https://cdn.contentful.com
2. Add request header authorization as the required request, put your access token from contentful as the token request string.
3. How to get data from contentful?
   a. List:

      https://cdn.contentful.com/spaces/{your_spacesId}/environments/{your _environmentId}/entries

   b. Detail:

      https://cdn.contentful.com/spaces/{your_spacesId}/environments/{your _environmentId}/entries/{your_entriesId}

      Dont forget to use **GET** method to fetch the datas.



Contentful CMS

Request

Edit this request

```
GET /spaces/yadj1kx9rmg0/environments/staging/entries/5KsDBWseXY6QegucYAoacS?
access_token=fdb4e7a3102747a02ea69ebac5e282b9e44d28fb340f778a4f5e788625a61abe
```

Parameters

`{space_id}` string

Alphanumeric id of the space to retrieve.

Example `yadj1kx9rmg0`

`{environment_id}` string

ID of the environment in form of a string

Example `staging`

`{entry_id}` string

Alphanumeric id of the entry to retrieve

Example `5KsDBWseXY6QegucYAoacS`

`{access_token}` string

A *production* Content Delivery API key.

Example `fdb4e7a3102747a02ea69ebac5e282b9e44d28fb340f778a4f5e788625a61abe`

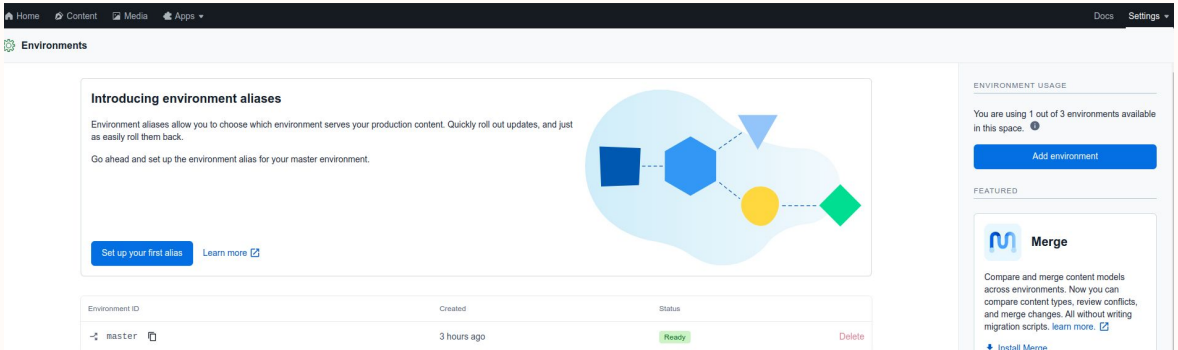
Contentful CMS

How to get spaceId?

When you login to the contentful and accessing the spaces, you could get the spaceId from the url after /spaces/

How to get the environtmentId?

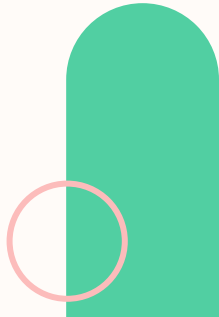
You could go to settings and click on environment. You will see the environment list in that tab.



Contentful CMS

Learn more about Contentful CMS here:

https://www.contentful.com/developers/docs/references/content-delivery-api/#/introduction/



Exercise

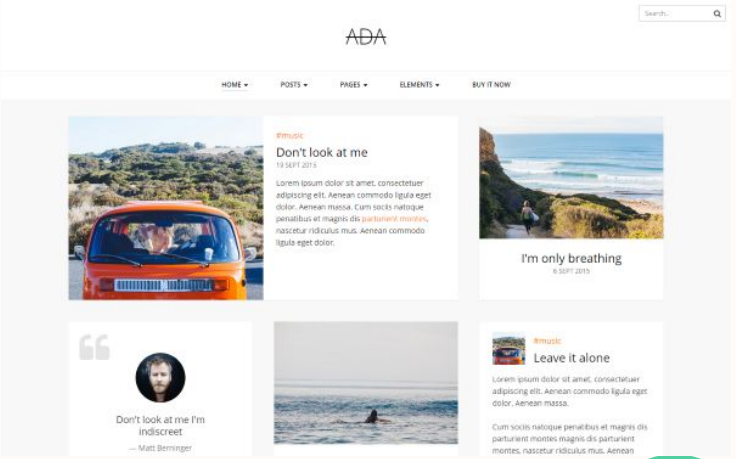
Whats next?

Lets integrate your data from contentful CMS into your NextJS projects.

In this sessions, you need to complete the assignment to develop personal Blogs with techstack:

1. NextJS
2. Headless CMS (contentful)
3. Fetch / axios for network call

The goals is to develop personal blogs where the data source comes from Headless CMS.



Thank you