

UI libraries

Which UI library (if any) should be used to develop the front-end?

Available product analysis

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Version history

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Context

The goal of this research is to answer the following research question:

"Which UI library (if any) should be used to develop the front-end?"

Answering this question means I have to figure out which libraries are available, fit my criteria, and offer the best integration for this project.

To do this, I will be using the available product analysis (Vogel, n.d.) research method.

Methods

Available product analysis

For this research, I will be using the available product analysis (Vogel, n.d.) method, as there are lots of different options available online.

Results

Before choosing a UI library, it is important to set criteria for a library, as there are tons of options nowadays, ranging from complete design systems to simple copy and paste components.

The only libraries or components I would consider have to adhere to the following criteria that I based on my own experience, the project's needs, and the stakeholders needs, with the most important criteria at the top:

Default styling

Styling should be based on TailwindCSS, as my project will be styled with TailwindCSS, and I don't want multiple ways of styling throughout the application as it will turn into messy code.

Compatibility

The library should be compatible with Hydrogen (React), as my project will be built with Hydrogen.

Pricing

The library should be free, as there are tons of free options available and I don't have a budget to spend on UI library subscriptions.

Customizability

I don't want to be locked into someone else's design. I should be able to customise these components to fit in with the branding and style of my project.

Dependencies

A library shouldn't be dependent on a lot of (unmaintained) packages. I want to make sure that I can still use these components in many years from now without issues, instead of having to migrate all my components to ones that do work.

Accessibility

Basic HTML semantic rules should be followed for accessibility, and it would be a plus to have components that put a lot of effort into making sure each component is accessible, so that I don't have to worry about it.

Selection of components

There should be a wide range of basic components that can be used throughout the project, meaning the library shouldn't be completely new and unfinished.

After ruling out a lot of libraries that did not meet this criteria, I came up with the following list based on a quick google search for "Tailwind UI library", personal experience, peer experience, and online articles (Gerchev, 2023) (Sahan, 2023) (Dumont, 2024):

- **shadcn/ui** (Shadcn, n.d.)
 - shadcn/ui is a very new but exciting and popular library, used by companies such as Vercel. It focuses on creating highly customizable, quality, accessible components. shadcn/ui's styling is a bit more opinionated than some others, and offers lots of interactivity for their components.
- **daisyUI** (*daisyUI — Tailwind CSS Components (Version 4 Update Is Here)*, n.d.)
 - daisyUI is one of the longest standing libraries in this list, and also widely popular. It offers a lot of components with a fairly generic base style, leaving a lot of room for customization.
- **HyperUI** (*Free Open Source Tailwind CSS Components / HyperUI*, n.d.)
 - HyperUI is a fairly generic component library that offers lots of flat components.

- **Aceternity** (*Aceternity UI*, n.d.)
 - Aceternity is a lesser-known UI library that consists of more abstract components that you wouldn't often see in other libraries. This makes it a possible addition or alternative for creating abstract and custom sections.
- **Flowbite** (*Flowbite - Build Websites Even Faster With Components on Top of Tailwind CSS*, n.d.)
 - Flowbite is a fairly generic component library that offers lots of flat but interactive components.
- **Preline UI** (*Preline UI, Crafted With Tailwind CSS*, n.d.)
 - Preline UI is
- **RippleUI** (*RippleUI / TailwindCSS Components*, n.d.)
 - RippleUI is
- **Sira** (*Home - Sira*, n.d.)
 - Sira is
- **Mamba UI** (*Mamba UI*, n.d.)
 - Mamba UI is
- **Meraki UI** (*Meraki UI Tailwind CSS Components*, n.d.)
 - Meraki UI is
- **Pagedone** (*Pagedone*, n.d.)
 - Pagedone UI offers a lot of aesthetically pleasing generic components.
- **Kitwind** (*Kitwind*, n.d.)
 - Kitwind UI is a UI kit that offers mostly "sections" and groups of components instead of singular components.

While there are lots more options, I have opted to limit my choices to the most popular ones.

[[Difference in syntax]]

[[Difference in working (copy-paste/install and dont see code/install and see code)]]

These libraries generally consist of copy and pasteable components made with Tailwind classes, which means, if they don't bring their own opinionated styling for things like colours and fonts, I could use multiple of these at once.

Conclusion

Sources

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