MOSAIC

Front End Assessment

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Introduction:

Hello , I am really thankful for the opportunity to take part in this assessment. I really hope i have been able to impress you with my work , as working for your company and helping Mosaic achieve its goals would be a dream come true.

I have prepared this documentation to explain my thought process throughout this assessment.

Why did I transform the fetched data from the API?

During my computer science degree , i got really experienced with running algorithms , which i have noticed can be easily overlooked.
I decided to transform the data from array to Objects. Since I knew that I would have to run find operations on this data. The running of find on an array is O(n) but O(1) on objects. While the data we worked with is not big , it's good practice to keep the potential of growth in mind.

A O(n) on a really big dataset would slow down our algorithm and the application. Which is just bad UX.

How did I handle Accessibility ?

Ensuring a web/mobile app is accessible is very important for a good user experience. I took the following steps to ensure that.

- I wrote media queries to ensure the app looks good on mobile , tablets and laptops.
- I ensured the image had an alt attribute to ensure people using screen readers identity the element.
- I implemented a light/dark theme. This is to allow users to easily adjust it to their preference.

What improvements do i think could be made ?

- In the search input form , we could include labels for each input, this is to ensure people using the tab key don't have any issues.

Why did I hesitate to use redux?
In my opinion the use of redux is to prevent prop drilling (passing props down to components who might not use , but just to pass it to it's child) , or when many components are accessing the same state.
This did not happen in the application as it was a rather simple app. So i thought using redux was an overkill.
But after more considerations I implemented redux to store the data fetched from the API. This is because , if this app should get bigger , chances are that more components will need this data.
I implemented a button that shows this documentation. I also stored the state of if the document is showing or not in the redux store, this is because as this app gets bigger , i may have to show this documentation in different places.

Why did I use *.module.scss stylesheets?
In react all your stylesheets are kind of merged in one. So repeating class names can cause unwanted styling effects. There are many ways to prevent this ,some of which are, to use styled-components, which i did, another is to name the stylesheets "***.module.scss**" and import the styles as classes. Behind the scenes each class name is given a unique id . This ensures there are no unwanted styling effects.

How did I go the extra mile to ensure I clone the original app?
As a front End developer it is expected of me to be very resourceful and know the tools available at my disposal.
I used a color picker to pick out the exact colors used in the original app and used it in mine.
I also use rulers to estimate the widths and lengths used in the original. I also did a lot of guessing to estimate things like font-sizes, etc.

Unit Testing
Using Jest with Enzymes , I was able to write unit tests for some components. Testing is a very important skill , and I wanted to demonstrate my ability to do so.