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CSE134B HW3

In this homework, our group implemented styling HTML templates with two different methods. The first method, Vanilla, used no other pre-configured frameworks or outside imports. Instead we manually tested each stylesheet per HTML file. For the second method, we used a well-known framework for building websites, Bootstrap. By implementing our web app with two differents methods we were able to understand the tradeoffs of using one method to another.

With the Vanilla method, we had the freedom to style our HTML elements in whichever way we wanted. Thus we had to first consider the tradeoffs of usability and style in advance. In contrast, Bootstrap forced our styling into a well established framework. We did not have to reinvent the wheel.

The time to implement Bootstrap took about 1.5 hours per page and for Vanilla we took about 3 hours per page. Because this was our first time writing CSS, the freedom we got from Vanilla translated into a considerable amount of time in debugging and testing.However, this may have led us to become better and faster when it came time to implement our app with the Bootstrap method. Looking at the statistics, however, we wrote significantly less CSS lines for our Bootstrapped HTML file.

Although we spent less time for the Bootstrap method, there were many problems in trying to change the given framework to suit our needs. We quickly realized that it was difficult to make changes to the given framework. This made us less flexible in what we could implement.

A huge advantage of Bootstrap was the grid system. Because the grid system already considers different size screens and collapses them upon changing screen sizes we did not have to spend extra time in implementing different styles for different platforms. For the vanilla method, we only styled for the Desktop and only changed the scaling.

In aspect of performance, we tried using different methods for Bootstrap. We downloaded a package from Bootstrap which contained the files we needed for our HTML elements and hosted them. The other method, we linked a given CDN for Bootstrap for each of our HTML pages. For the vanilla method, we wrote a separate CSS file for each HTML file and hosted each file. We found that the bootstrap.min.css file was about 78KB. However the size of our bootstrap file was dwarfed by the bytes of each NBA players' pictures. The load time and rendering however, took .8 seconds longer.

Overall, because of the rise of mobile and tablet browsers it may be much easier for the developer to use Bootstrap or another pre-configured framework. However we know that the load times will be slower and we will be pigeon-holed into creating our web app in a certain but proper way. For the Vanilla method, we have much more freedom and we can optimize our load time. However if we do not have experience with UI then we can end up spending much more time and unintentionally create web apps that are not user friendly.

	Vanilla	Bootstrap
SLOC (html)	139 lines	124 lines
SLOC (css)	113 lines	30 lines
Byte Count	1.4MB	1.4MB
Time to load w/o caching	2s	2.88s
Hours Spent	12 hours	6 hours