**Background research into technology possibilities**

Potential Frameworks

* Angular (google)
* React (facebook)
* VueJs
* Plain HTML, CSS and Javascript
* Django

Languages:

* JavaScript
* TypeScript
* Python

Styling libraries:

* Boostrap
* Foundation
* Bulma

**Justification of the selected technology.**

Selected technologies:

* React (Framework)
* Bootstrap 4 (Styling CSS classes)
* ‘react-bootstrap’ (A Combination of the two libraries above)
* JavaScript

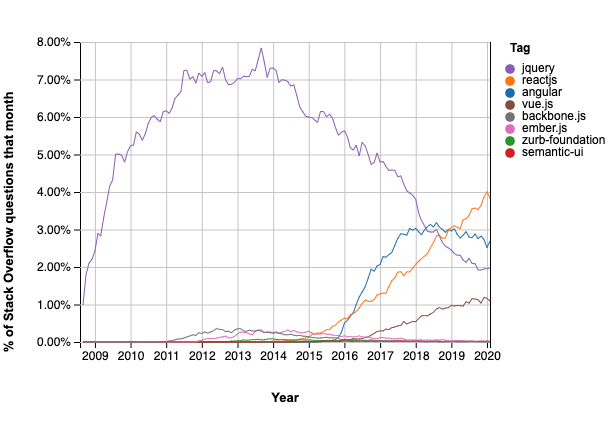
**Reasonings per technology.**

**Why React?**

Firstly, React claims:

**“React makes it painless to create interactive UIs” [1]**

As it did not make sense to create a website using plain html/CSS/JavaScript and we were permitted to use frameworks. As there has been no reason to do so for many years when robust frameworks have been developed to improve quality and security of front-end technologies. React was chosen as it would allow the team to broaden their skills through learning a new front-end framework. We choose React specifically as it is now one for the most popular frameworks for frontend development as we can see from this graph from stack overflow highlighting the increase of questions related to ReactJs. It also seemed that it would be good opportunity for the team’s employability to learn a web framework.



**Why Bootstrap 4?**

Bootstrap 4 was chosen as it enables an inexperienced web-development team to produce a visually appealing websites, in the case where the team processes little CSS experience or knowledge, as only 1 member of the team had ever done any frontend web development before. It allowed us to spend more time working on the dynamic elements of a Dynamically Authored Website, than spending 90% of our time trying to fix CSS issues. Importantly Bootstrap is well developed and learning resources are in high supply.

**Why ‘react-bootstrap’ a special combination of ReactJs and Bootstrap 4?**

Firstly ‘react-bootstrap’ claims to be:

**“The most popular front-end framework” (3)**

This again will allow us to expand our employability, as many companies use this framework that we now have experience with.

Main reason to use this library was it simplified the relationship between React and Bootstrap, but also still left open the options to use Bootstrap as it was original designed or too even write totally custom CSS. This is a extremely strong tool for the in-experienced web developer. And again provided us more time to work on key dynamic elements rather than getting bogged down on CSS issues.

**Why JavaScript?**

JavaScript was chosen as the module content was taught in JavaScript. And most web development is using JavaScript. Despite the rise in popularity of Typescript for example. We decided to use JavaScript as React uses it by default and the module was taught in JavaScript, meaning team members we equipped to use the language within the coursework.

References

1. <https://reactjs.org/>
2. <https://www.simform.com/wp-content/uploads/2020/02/stacktrend.png>
3. https://react-bootstrap.netlify.app/