Section 6.2 Technologies in Use

Programming Languages:

HTML

HTML is a computer and markup language that allows to create web sites and web documents. This language will consists of the very backbone of the website, when it comes to filling up the webpage with text and dialogs.

CSC

CSC is language within the markup language that allows to manipulate the design of the web document, meaning positioning, color and overall presentation.

JavaScript

JavaScript is the main client side programming language used for creating interactive websites. JavaScript support is built right into all the major browsers and can support object oriented programming. JavaScript will be the main dynamic language used by the front end team and everyone in the team possesses experience working with JavaScript.

Framework:

React

React is an open source JavaScript library which contains a template language and some function hooks to efficiently render HTML. It does not strictly follow the MVC structure that many other web frameworks do. Instead, React manages all UI updates when data has been changed and will update only those changed data. React is often considered the V in MVC. This is efficient because the user can tell how a component will render by looking at one source file. The use of JSX makes the code incredibly readable. Output uses either real HTML tags or the team’s created tags.

Due to React’s focus on the view, it gives plenty of tools for making elegant user interfaces. With the addition of the React Bootstrap open source library React is the fastest way to create a professional looking web application.

Furthermore, because of how React splits DOM elements into components, a program flow does not need to be traced which can be efficient when working in a big team. Instead, the web pages can be split into different independent components that can be worked on individually by different team members. The front-end leader has experience with React and all team members have at least some JavaScript experience. On top of that, React is very easy to learn, especially if one already has JavaScript experience.

PHP

PHP is a server side scripting programming language used for web development. It is very well documented and can support objected oriented programming. PHP will be used for the backend and most of the team members have experience with PHP.

Framework:

Laravel

Laravel is an open source PHP web application framework that allows rapid development of web applications. Laravel uses MVC architecture and has features such as module package manager, template engine, database seeding, routes, authentication, and object oriented design. This will provide clean and manageable code.

Integrated Development Environments/Editors:

PhpStorm

PhpStorm is an Integrated Development Environment for Windows and Mac OS that allows developers to code their projects in PHP. It has syntax highlighting , plugins, different type of frameworks supported such as Symfony, Laravel, CakePHP, built in support for databases ,version control, debugging and testing. PhpStorm increases the productivity of developers and helps to get done things faster.

**Source Code and Revision Management:**

**Git**

Git is a source code management system used for software development. It allows developers to save different versions of their projects at different points of time and compare these versions between each other. Git allows developers to contribute to a repository(project) even if the developer is not connected to the Internet. It stores a local copy of the project on the local repository and changes made on the local repository can be pushed to the main repository. This allows to stay organized and maintain previous versions of the project.

Collaboration Software:

GitHub

Github is a website that hosts Git repositories and has all the functionalities of Git. It provides bug tracking, feature requests and wikis for projects. It is used in this project as it allows easier collaboration between developers.

**Google Docs**

Google Docs is an online word processor that allows individuals to edit and collaborate on documents in real-time. It is free and can be accessed by anybody.

Draw.io

Draw.io is a software application that allows to draw domain model, UML, use cases diagrams and etc. It allows collaboration between individuals and can be used as a plugin to Google Drive.

MockFlow – Wireframe pro

MockFlow – Wireframe pro is an application used to create the mockup of the website. It allows for collaboration where the whole team contributes to creating the backbone using the available widgets and elements and to display comments and reactions.

Skype

Skype is a free video chat application that allows users to do video conference calls and exchange documents. For this project it is used between sub sections of the teams because it is more efficient.