INFS3202 Assignment 1
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Proposal:

Fire Watch is a website designed to allow users to easily find fire danger information for their local area. It will consist of an interactive map to find the fire danger ratings around Australia, a page listing any fire alerts and a registration page that allows users to sign up to receive emails with fire danger information on their chosen areas.

Purpose:

Fire danger ratings can be found on each state governments separate website. Fire watch would collect all the information onto one easy to use site, saving users time and effort. Users can easily find and correlate fire danger information for any area of Australia which is very helpful for where they live or are wanting to travel. Users can also receive emails to stay informed of current fire alerts in their areas.

Technology:

HTML – used to place the content on the webpages. The html Geolocation API will be used to find the user's current position to initially set the interactive map to their location.

CSS – used to style the webpages. A reset file has been used to help users with older browsers use the site. This has been used from the public domain.

JavaScript – used to add interactivity to the website, specifically showing the fire danger areas on the interactive map display and showing the issued alerts on the alerts page. The information used to generate these features will be retrieved from the server. The google maps JavaScript API will be utilised for the interactive map display.

PHP – used to handle user registration and sending emails. Used to maintain the alerts page to ensure it is current. Used to handle data for the interactive map.

JSON – used for the interactive map and alerts page data. Used as it's easy to use and works with PHP

Web Standards have been maintained and used throughout. Web standards are important as it offers a set of rules for web programmers to follow that allows their websites to be used on multiple browsers and platforms. Without web standards the web would be a mess as everyone would code in different styles and languages, leading to many browsers being unable to interpret the code for many sites.

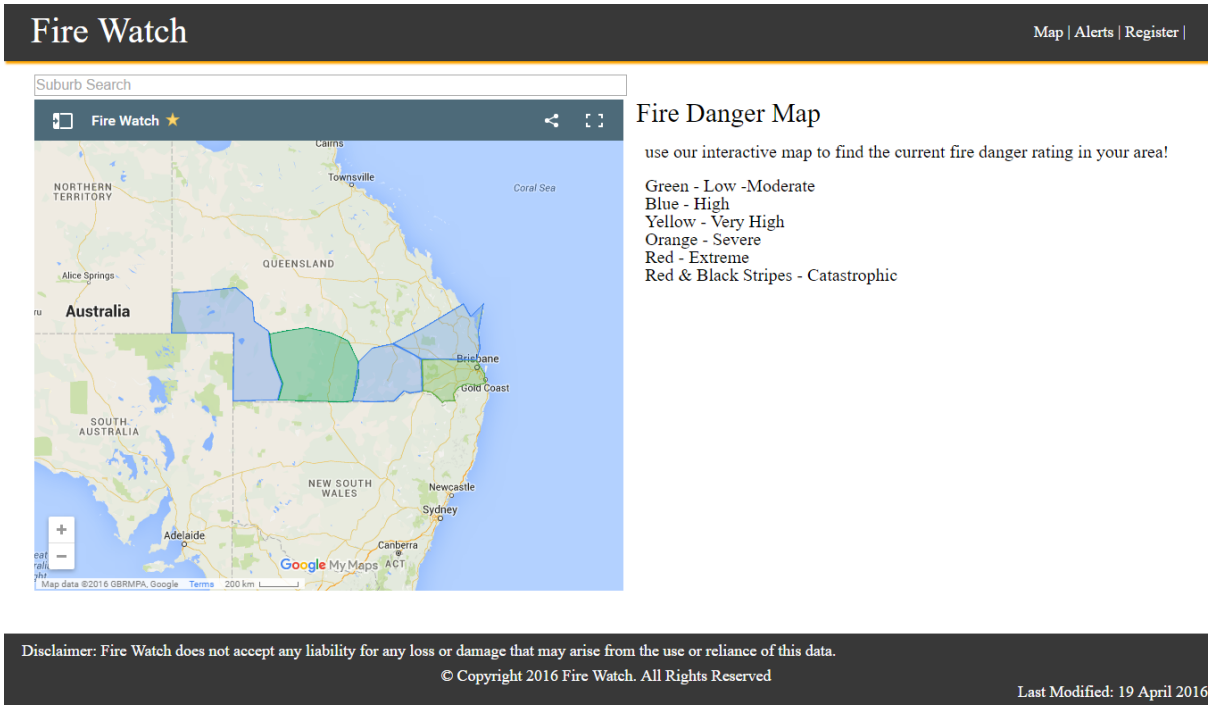
Design:

Fire Watch has been designed to be used on Google Chrome as it is the most widely used browser in Australia, however it also works the same on Firefox and Safari, leading to most people being able to use the full functionality of Fire Watch. A reset CSS file was also used to help users with older browsers use the site, this was taken from public domain with reference comments in the file.

The header of the website has the Title of the site on the right site and the navigation on the left. This was chosen as it is intuitive to read right to left in Australia. Dark grey and orange is the colour scheme for the website as it is a reference to flames and ash. The style of the site is very simple and clean, to maintain a professional feel. The header is a dark grey bar with the title and navigation with an orange line underneath. The navigation links turn orange when hovered over so the user knows they are a link.

The footer is also dark grey to match the header. The text is white in the header and footer to be more easily read. The footer contains the copyright information, a disclaimer to relieve Fire Watch from any responsibility to damage or loss occurred from using the site and the date it was last modified. These pieces of information were placed in the footer as it is standard to place this information there.

Index Page:



The index page is known as Map as it contains an interactive map of Australia. This map can be used by users to search for their suburb in the search bar or by clicking and dragging the map. The map will display the current fire danger rating based on the official colours used by the state governments, these colours can be found on the right of the map so the user can easily find and understand what each colour means. If the user clicks on an area, the map will display, in a bubble, the name of that area and the current fire danger rating in text. Any alerts for that area will also be displayed. The map only takes up half the page as it would become too large leading to confusion for the user if it was bigger. The map will also be initialised to be at the user's location using the Geolocation API. This will save the user time as most often they'd want information on their current location.

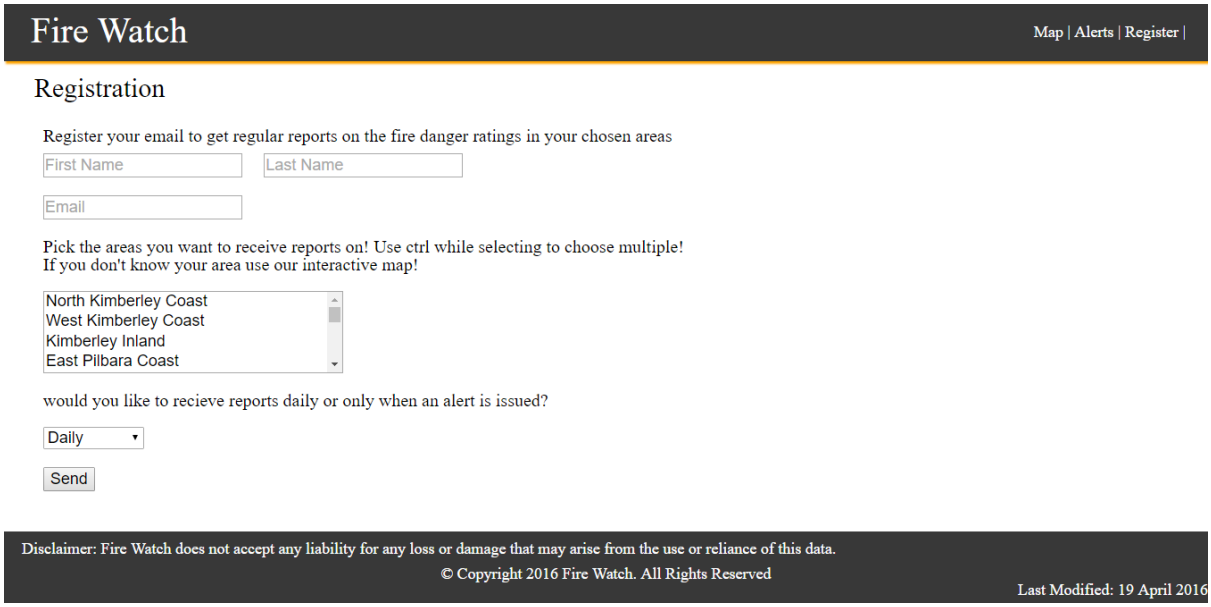
The graphics over the map will be displayed using JavaScript using data passed by PHP from the database.

Alerts:

The alerts page consists of buttons for each separate state. The buttons are orange to maintain the theme of the site. The states have been separated into separate sections to reduce the amount of information displayed at the same time on the page. It also makes it easier for the user to find information on a certain state. When a button is clicked any current fire alerts in that state will drop down under the button. This was down to reduce clutter on the page and make it cleaner. The > sign was used to show the user that there is drop down information to be revealed when the button is clicked.

PHP will allow the page to show the current alerts in the database and update when a new alert happens or an old one is removed.

Registration:



The registration page is for users to input their information to receive emails from Fire Watch with fire danger information. The user inputs their name and email address then choose from a list of areas, which ones they want to receive information about. The can choose multiple. They then choose whether they'd like a daily email with the fire danger rating for that day and any alerts, or if they'd like an email only when an alert is issued for their chosen areas. It was ordered this way as it is standard to place the name first followed by the email then any options.

The information will be processed into the database by PHP. PHP will also send the email.