# CAB230 Web Project Report

APPLICATION WORKS WELL ON GOOGLE CHROME, MOZILLA FIREFOX & INTERNET EXPLORER.

PREFERED TO BE TESTED ON MOZILLA FIREFOX

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## **Statement of Contributions**

	Individual review webpage
	Home webpage
	Locations database
	Reviews database
	Locations
David Thai	Reviews database
David Thai	Map add on
	Search function
	Review functionality
	Logo, mobile icon, splash screen design
	Report
	SQL Injection
	User registration webpage
	User login webpage
	Search webpage
	Registration/Login functionality & database
Kavin Duana	Navigation Bar/Footer design
Kevin Duong	JavaScript validation for users
	Pagination
	Report
	XSS
	Microdata

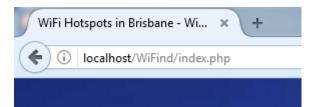
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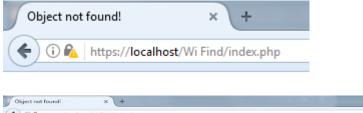
#### Test Plan

#### Accessing the home screen

The user will be able the access the home screen by entering the correct url for the index/home page. The url is space-sensitive, therefore a minor mistake when putting the url, the home screen will not load.









Another way of accessing the home screen is to click on the WiFind logo on any of the pages related to the website. The image will redirect the user to the home page. However, as the logo's background colour matches the colour of the navigation bar so the user needs the click of the text part of the image, or else nothing will happen.

#### Registering as a new user

To register as a new user, the user must fill in all the text inputs with valid data; with the placeholders being a guide. The username must only contain numbers and letters. The email needs to be in the correct form: 'example@email.com''. The password must match. One of the genders needs to be selected. The 'Terms of Use & Privacy Policy' must be ticked. If the users missed any of these, error messages will show up. When all inputs are valid, a message will show up saying the user has successfully registered.





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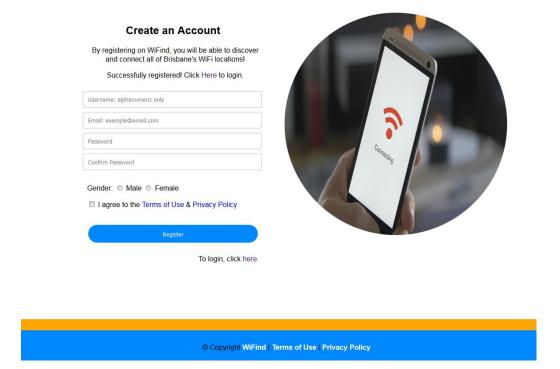






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#### Logging in as an existing user

To login as an existing user, a username or email and the password for that account needs to the inputted. When invalid data has been inputted, an error message will show up. When a valid account has been inputted. The user will be redirected to the home page with the navigation bar changed. The 'Login' and 'Signup' options are removed and replaced with 'My Profile' and 'Sign out'.

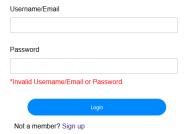


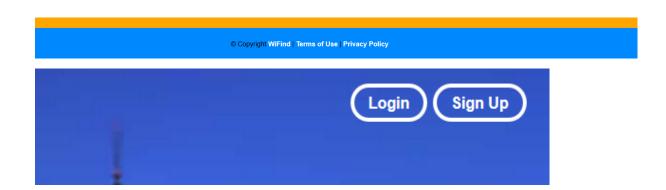
#### Login to your Account

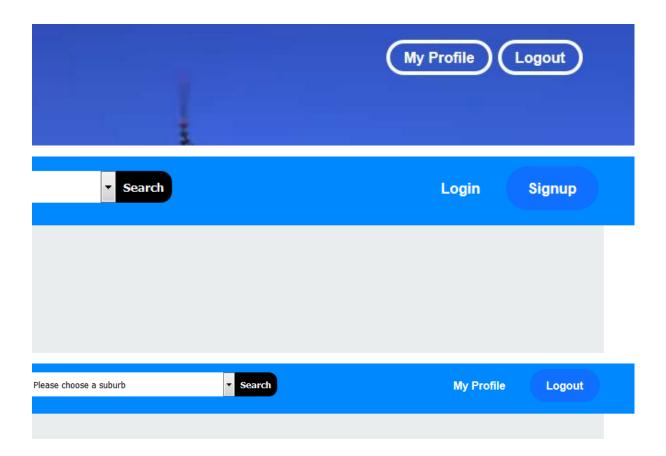




#### Login to your Account

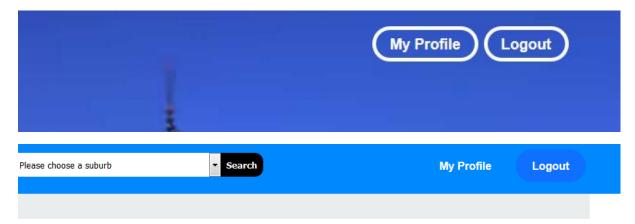






#### Logging out

To logout the user just needs to click on the logout button at the top of any page of the website.



#### Adding a review

To add a review, the user needs to be on a review/individual page of any of the locations. Before they can submit a review, the user has to login first. Afterwards, the user can write up a review. The review can have a title, a comment or a rating. It can be a combination of any of these. After submitting, the review will be displayed at the bottom of the page.

	Title here.	
	Please write your review here.	
AkaKuro		
AKanuio	а	
	Select a rating:  ★ 0/5 ▼	Submit Review
		- Submit Notion
	Meh Could be better	
	<b>★</b> 3/5	
AkaKuro	Alright place. The wifi is fine, not as good as other places. Place is usually crowded.	
Akakulo		2018-05-17 20:20:
	Good speed, but there is a download limit	
	<b>★</b> 3/5	
CrayonsForBilly	The speed of the wifi is pretty good. Wifi has a 50Mb download limit, which is not much at all. It should be at least 1	Ch

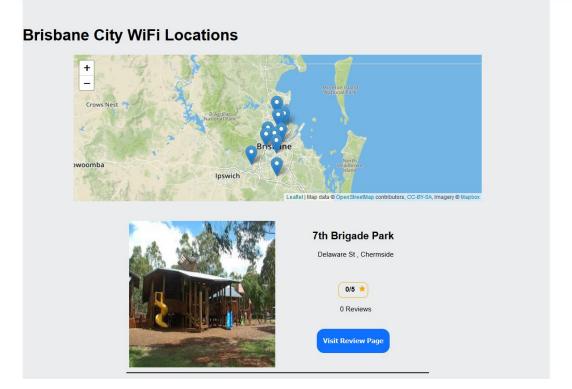
#### Searching for an item that exists in the database

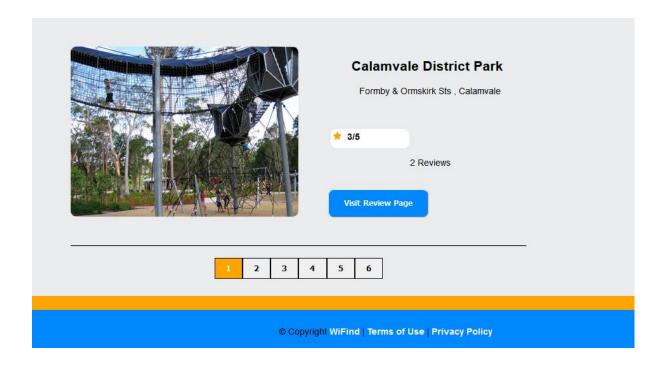
The user can look up Wifi locations by simply searching the name, address or finding the rating of such place in the home page's search forms or the navigation bar, or just simply search without entering an input which releases all items. Once they enter their choosing, they will be directed to the results page which releases 10 items per page with names or addresses that are similar to the search keywords. If the user wants to find more similar results, they can click on the page number down the bottom of the website to go to the next page for more results. From ratings 0-5, the search function will return the items with the average rating of that number. If they specifically enter the name or address, then they might either get 2 or just 1 item, depending how accurate the search is.

The user can only use one of the search forms to access their results. From left to right (input text form, drop down list suburbs, and ratings), if only the rating is used and the other search forms are blank, then it will proceed to search using the ratings input. However, if three search forms are used, the only result that will return is the input text search, ignoring the rest.



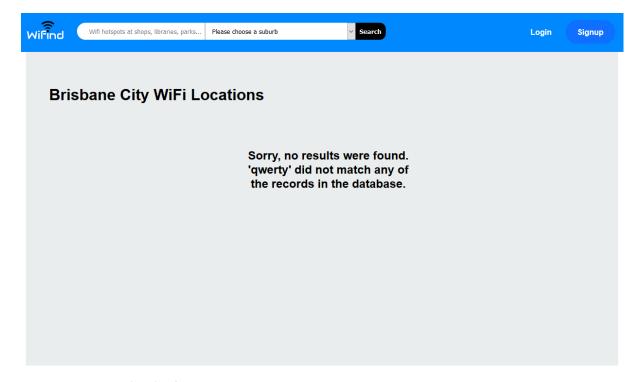






#### Searching for an item that does not exist in the database

Any item that does not exist in the database will therefore not be included in the search forms. The user will face a blank screen, with the addition of a statement in the page which tells the user 'No results found.'



#### Accessing an individual item page

In the results page, each item will have a link that can direct the user to the individual page of the location selected. Here they can view the location's information and reviews.

## **Brisbane City WiFi Locations**



## **Ashgrove Library Wifi**

87 Amarina Avenue, Ashgrove, 4060

**2/5** 

2 Reviews

Visit Review Page



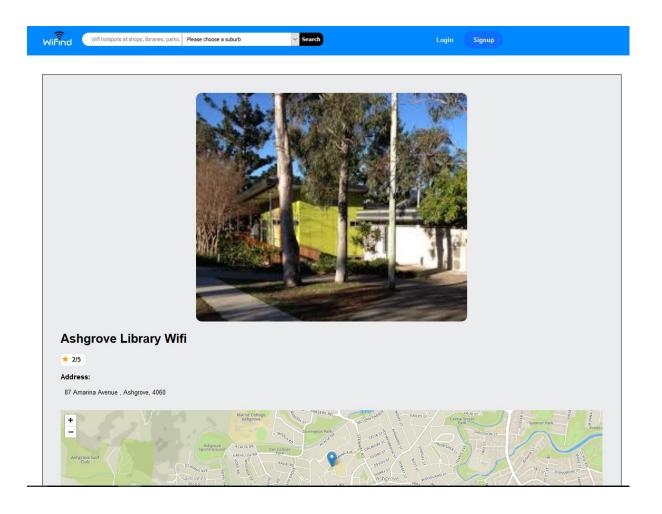
## **Bulimba Library Wifi**

Corner Riding Road & Oxford Street , Bulimba, 4171

**\*** 2/5

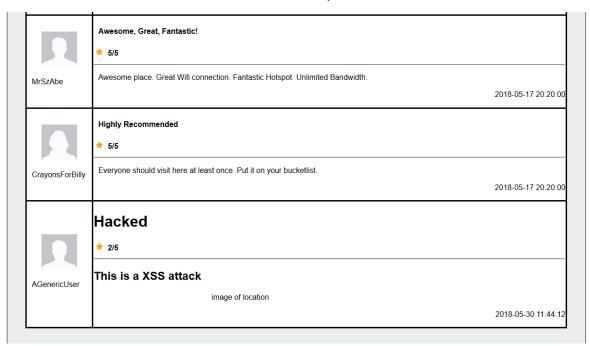
2 Reviews

Visit Review Page



## Attempting to use a cross site scripting attack but not being successful

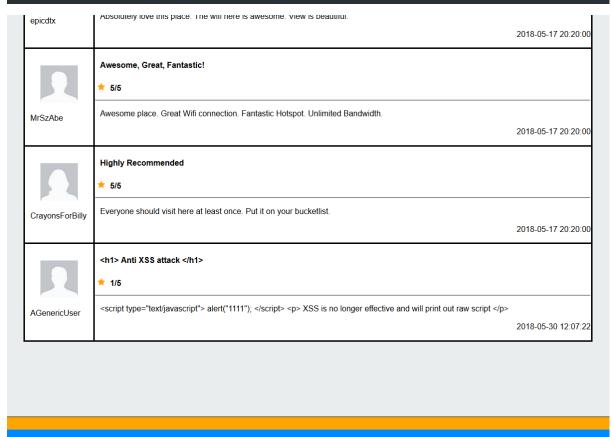
A user can input malicious code that can change/distort the website in any way by inputting the code into a textarea box. The results before anti XSS is implemented:



The removal of XSS is done by wrapping htmlspecialchars, ENT\_QUOTES, and UTF-8 around the variables of \$title and \$comment that gets post. This also applies to search function as well.

```
//insert row

$userID = $userRow['userID'];
$title = htmlspecialchars($_POST['titleReview'], ENT_QUOTES, 'UTF-8');
$comment = htmlspecialchars($_POST['commentReview'], ENT_QUOTES, 'UTF-8');
$rating = $_POST['reviewRating'];
$pdo_statement->execute();
}
```



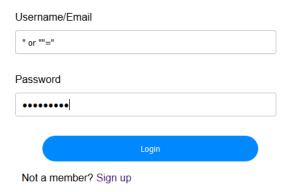
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#### Attempting to use an SQL injection attack but not being successful

SQL injections come mostly by inputting QLD statements into any input boxes that fetches the database. Prepared statements and parameterized queries are SQL statements that are sent to and parsed by the database server separately from any parameters. This will prevent any SQL injection attacks against the website and database.

Using " or ""=" for both username and password to attempt to access a user.

#### **Login to your Account**

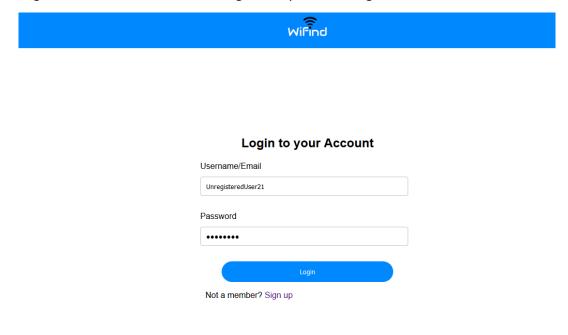


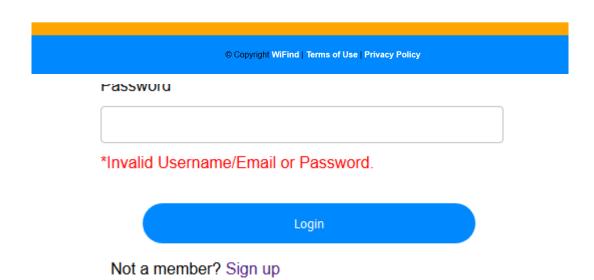
## **Login to your Account**

Username/Ema	il	
Password		
*Invalid Userna	me/Email or Password.	
	Login	
Not a member	? Sign up	

#### Unregistered user not being able to login

An unregistered user will not be able to login if they have not registered an account on the website.

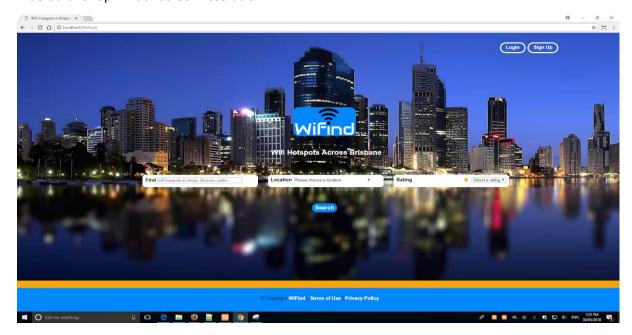




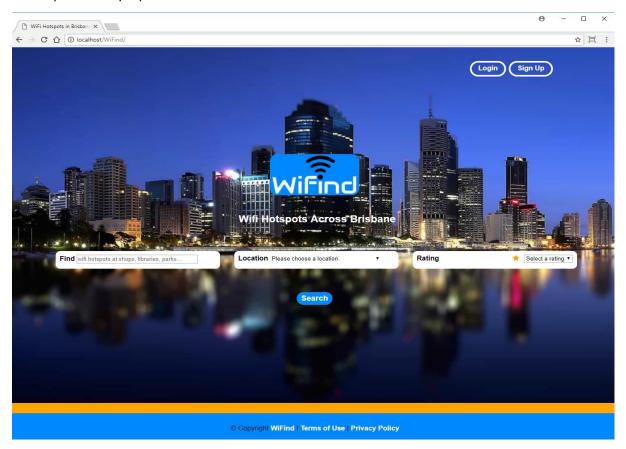
Upon entering their details, they will receive an error message saying either the username or password is incorrect.

## Operating gracefully in multiple resolutions

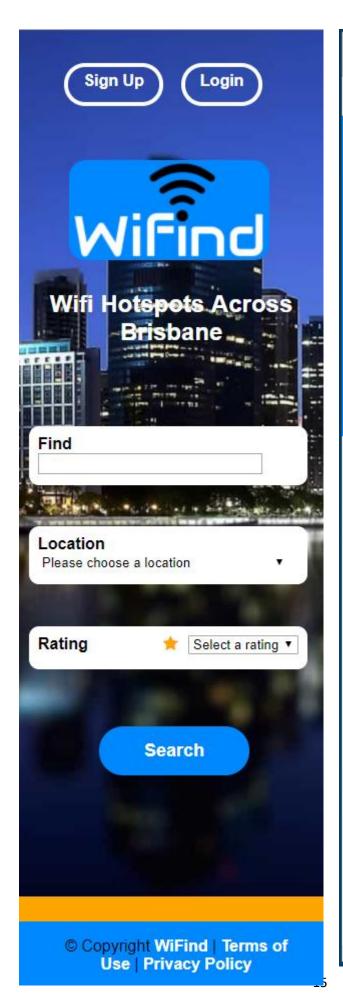
A default 1920px width screen resolution:

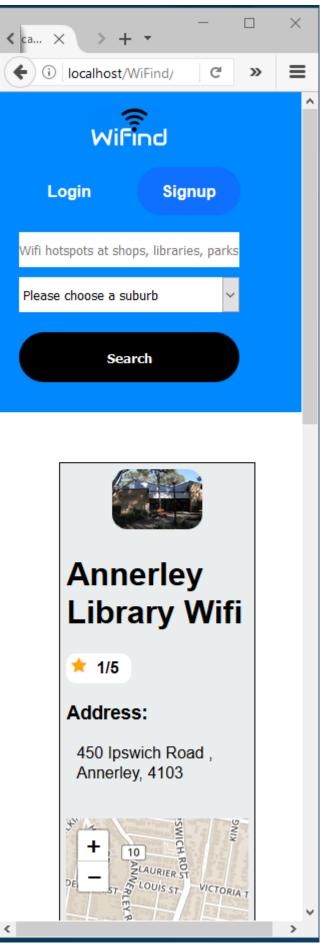


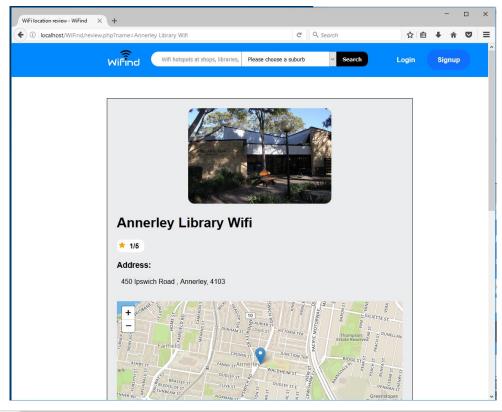
A 1368px width laptop screen resolution:

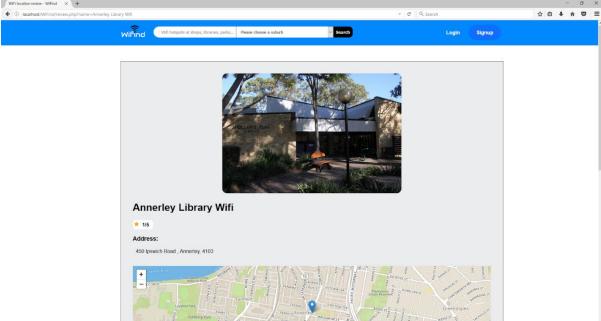


A 320px width phone screen resolution:









## Add On Tasks

#### **SQL Query**

The database connected to the website is written in PDO and established as a configuration (dbconfig.php). It is also linked to multiple files which work to create dynamic web pages.

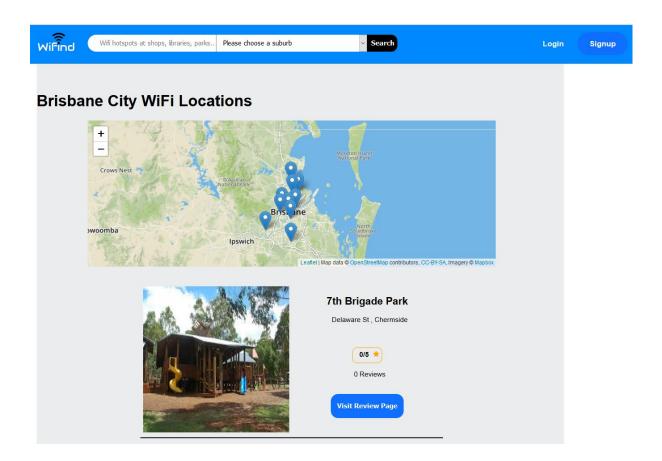
```
deconfgrpc ID

| Polymer | Colass Database | Colass Database
```

The class.user snippet code about registration/login process:

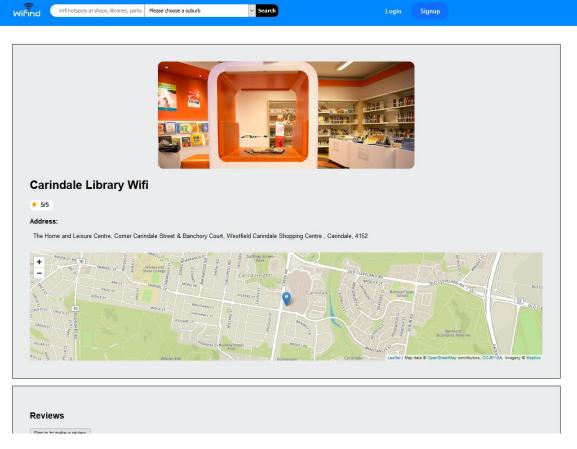
#### Search result map markers

On the search results page, it includes a map showing markers for all search results. Users can click on results on the map and it will open up the individual item page.



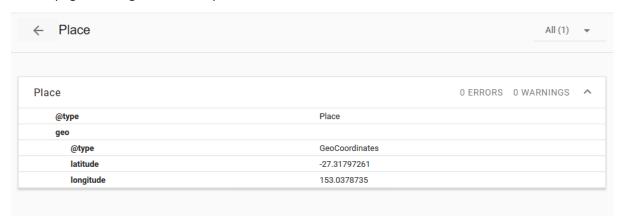
## Individual page map location

Each review page will contain the location of the item. They are marked on the map with a blue marker, showing users where the hotspot location is.



#### Geographic microdata validated by Google

Using 'ngrok' to put the website online, geographic microdata is implemented throughout the review page to recognize the hotspot locations and allow them to be inserted into search results.



#### Microdata validated by Google

Using 'ngrok' to put the website online, microdata is implemented throughout the review page to recognize reviews and aggregate them into search results.

deview	0 ERRORS 0 WARNINGS
@type	Review
datePublished	2018-05-17T20:20:00
datePublished	2018-05-17T20:20:00
datePublished	2018-05-17T20:20:00
itemReviewed	
@type	Thing
name	Bracken Ridge Library Wifi
author	
@type	Person
name	epicdtx
reviewRating	
@type	Rating
ratingValue	5/5
description	Absolutely love this place. The wifi here is awesome. View is beautiful.
author	
@type	Person
name	MrSzAbe
reviewRating	
@type	Rating
ratingValue	5/5
description	Awesome place. Great Wifi connection. Fantastic Hotspot. Unlimited
description	Bandwidth.
author	
@type	Person
name	CrayonsForBilly
reviewRating	
@type	Rating
ratingValue	5/5
description	Everyone should visit here at least once. Put it on your bucketlist.

## Site icons display on mobile phones' home screen

The website has metadata that configures it for iOS and Android devices. However, testing has not been done.

Icon:



Splash Screen:



### Mobile phone screen compatibility

Users who want to access the website using their mobile phones can do so because of the viewport setup:

```
Kmeta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<link rel="stylesheet" type="text/css" href="wifind.css">
```

Using a phone to view the website:







#### Web Design Principles

#### **User Experience**

The intended audience of this website are tech savvy people, students, and people who want to use their devices without using their data; for social media, games, study, etc. They will be concerned about whether or not the website will be easy to navigate, or if the website is compatible on their devices.

The website is simple and clean due to the layout not being clustered and the use of the colour white. It gives off a feeling of reliability and security to the user due to the colour blue throughout the website. Given that the user has to trust the information displayed on the website, the personality of the website is appropriate to the target audience.

The site follows Steve Krug's law of web design due to the fact that the users don't need to learn or think much when navigating throughout the site to find what they want. As simple as it is, the website only contains relevant information the user would need; such as maps, reviews, and other content related to certain hotspots. With the use of the website's search function on the home page and navigation bar, information is findable and accessible.

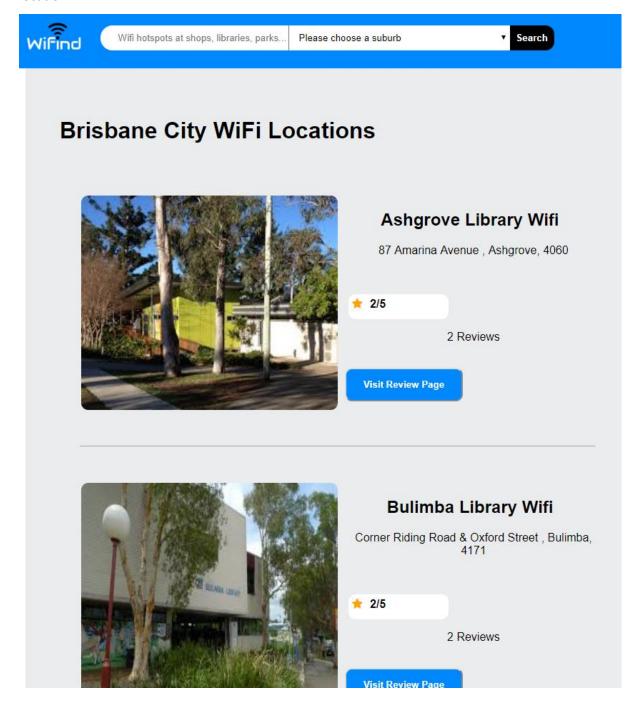
The principle of organising and prioritising comes to play on the structure of the website's content, layout, and use of style. For example, when users first open up the website, they are introduced to various elements that draws their attention. The biggest visual element are the logo and three search bars. These play a role to introduce the user the website's logo, and to begin by entering their input on the search bars to start finding Wi-Fi hotspots. The least concerned element of the webpage is the login/signup buttons, which are positioned on the top right corner of the webpage and are relatively small in comparison to the other content.

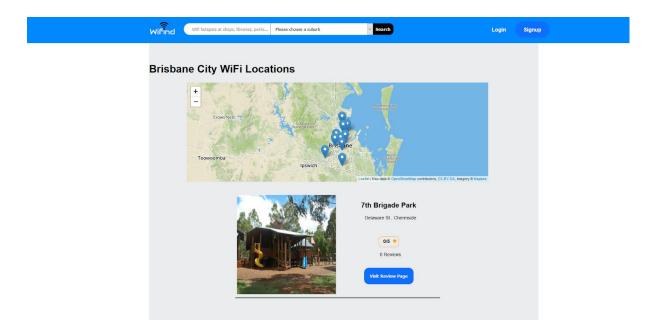


#### Visual Design

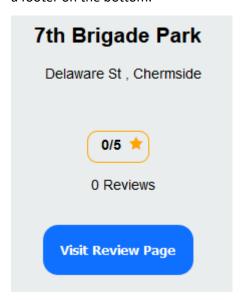
Much of the visual aspect of the design comes to the colour theme, images, logo, and buttons that navigate users. The user has no trouble seeing what the website contains; white/grey spacing is predominantly used to ensure the user reads the content comfortably. Images are respectively placed next to their description, making it helpful for the user to know what the locations look like and their description altogether.

The contrast of any text in the website with its background his high, making it is easy to read. The website's content produces minimal information that is necessary and relevant to what the user wants. It only outputs the title, address and rating of each Wifi hotspot, which is all grouped together alongside with link to the review page if they want to furthermore look into the individual page of the location.





The styling of different the content makes it easier to scan through the content. Name of locations are bold. Ratings are next to a yellow star. Links are highlighted. As previously mentioned before, a good use of whitespace is contained throughout the result page and individual page, while the home page has a background image. The block layout of the website is usually divided into three sections: the header and navigation bar on the top, the body which covers most of the web page with content, and a footer on the bottom.

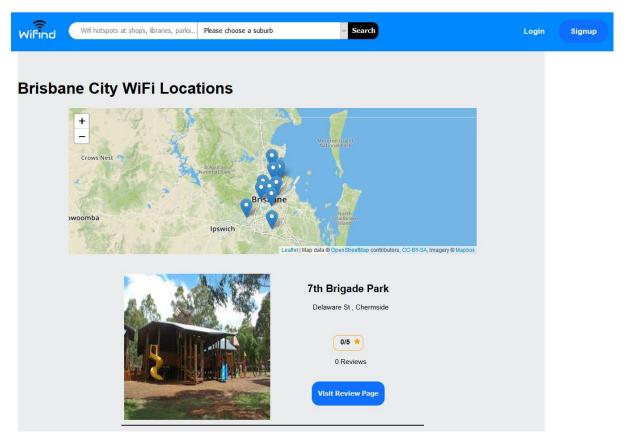


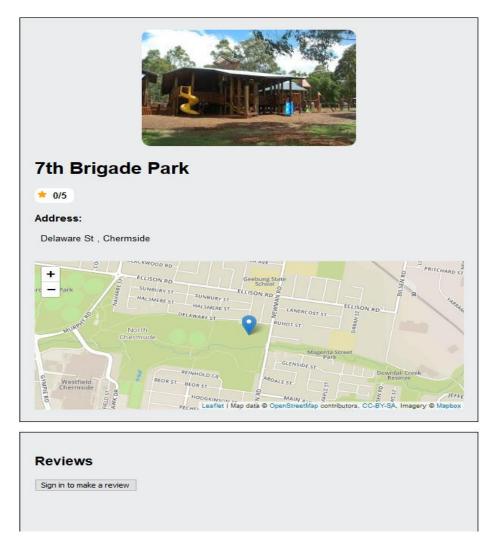
Visual design consistency can be seen throughout the website's pages. The colour theme consisting of blue, grey, black, white and orange are present in the same location throughout the webpage. The styling of the navigation bar, footer and buttons are consistent on each page.

#### Page Layout

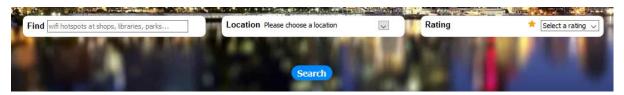
The home page of the site mainly focuses on allowing the user search for hotspots, logging in, or to sign up. There is no unnecessary content to distract the user. When a search has been made, it redirects the user to the results page that displays a table of hotspot locations appropriate to the criteria of the search made. The user can view more details about the location in its respective page,

which first contains the exact image and details from the result page, letting the user know they are on the correct page. Under the details are the reviews of the location.





The three search input areas on homepage, and the forms on the registration page shows what each needs via a placeholder. It helps the user enter valid search criteria. All buttons are clear, readable, and stands out from their backgrounds. The navigation bar is simple and its purpose is clear; to allow the user to search the website's database. It is easy to tell where you are and where you can go next.



#### **Create an Account**

By registering on WiFind, you will be able to discover and connect all of Brisbane's WiFi locations!

Username: alphanumeric only
Email: example@email.com
Password
Confirm Password
Gender: ○ Male ○ Female  ☐ I agree to the Terms of Use & Privacy Policy
Register

To login, click here.

When the window is resized the content moves so that it is still visible to the user. When the user zooms in, the text gets bigger and it shuffles around so it still fits in the window; however, the words per line gets smaller. The most of the pages have whitespace around the content which will decrease or increase depending on the window size. Eventually the window will reach a certain limit and the user will have to use the scroll bars to view the content. But it still works well with devices with a small screen size. The websites visually consistent when opened in different browsers; such as Google Chrome, Mozilla Firefox and Internet Explorer. It also acts similarly when resized in different browsers.



# 7th Brigade **Park**

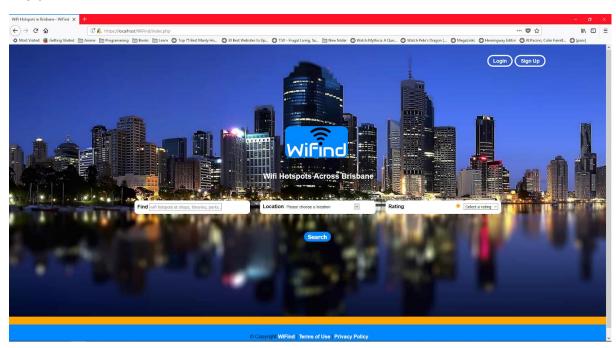


**★** 0/5

## Address:

Delaware St, Chermside

#### Firefox:



Chrome:



#### Internet Explorer:

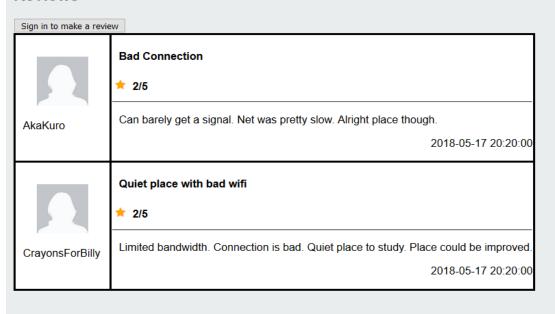


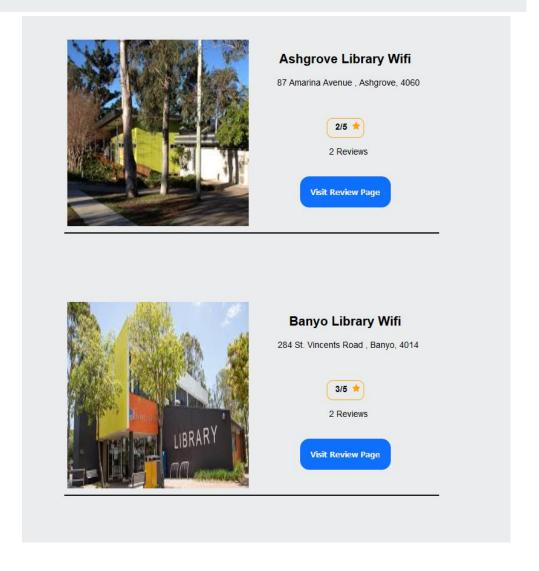
#### Standards

The website complies with a few areas of the Web Content Accessibility Guidelines.

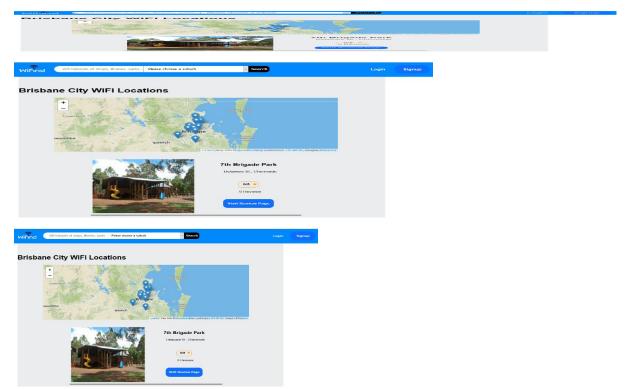
• Under 'Perceivable': The content stands out from the background, making it easier to see. The colour scheme and styling of most pages allows colour-blind users to still be able to see and use the webpage.

#### **Reviews**

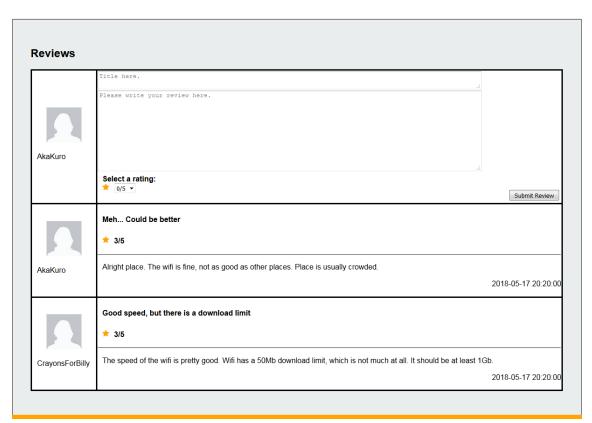




Under 'Operable': There are no time limit on any of the pages, therefore users can take as
long as they like to read the content and navigate through the site. No content has been
designed in a way to cause seizures (No flashing objects). The buttons and links to help users
navigate and find content on every page. The user will know what page they are on due to
the content displayed.



• Under 'Understandable': With the use of styling all text content are readable, and can be zoomed in if needed. Text content are also easy to understand and are grouped together with other related content. There are validation and placeholders in places that needs the user's input. It will help uses avoid and correct mistakes.





### Create an Account

By registering on WiFind, you will be able to discover and connect all of Brisbane's WiFi locations!

Username: alphanumeric only
*Please enter a valid username.
Email: example@email.com
*Please enter a valid email address.
Password
*Password is empty.
Confirm Password
*Password is empty. Gender: ○ Male ○ Female
☐ I agree to the Terms of Use & Privacy Policy
Register

To login, click here.

• Under 'Robust': The website could be regularly updated so it can still be accessed as technology evolves.

The website uses semantic HTML to display its content. The website uses tags like <form>, , <footer>, and others to define what content can be found within the tags. It also contains many <div> tags to define different parts of the webpage.

It is unclear whether or not the website strictly follows W3C standards. However, it does use HTML is display structured content, and CSS for visual appeal and a layout that is compatible on different devices. All styling was done by an external CSS stylesheet, this separates content structure from presentation info.

#### CSS:

#### HTML:

## Video Demonstration

A video demo of the website can be found here on YouTube: https://www.youtube.com/watch?v=egzDEw7HPmQ&t=