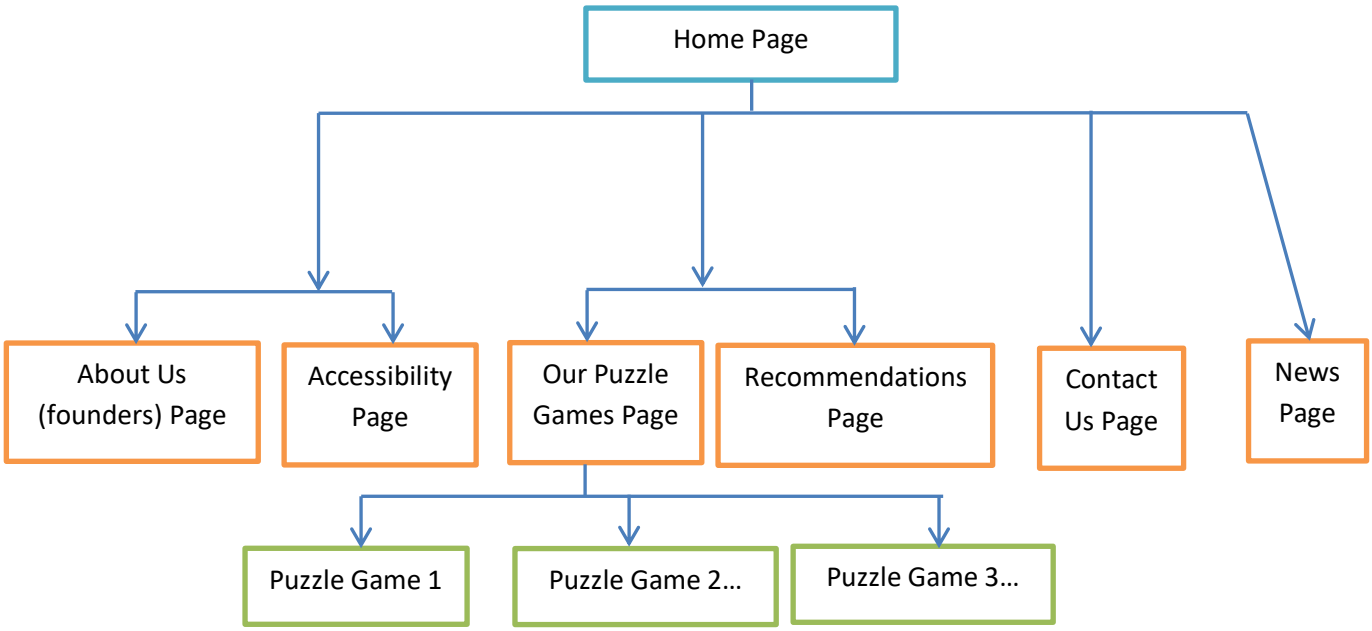
Part 1: Planning and Design

General ethos

The aim of my website development is to develop a children's puzzle games website. In order to implement this solution I will make sure that the designs I use for my solution are relative to my target audience, predominantly being children. In achieving this I will create a user-friendly website with appropriate content and colour schemes.

Site Map



This site map shows the relations between different web pages, in order to simplify the complexity of the website I have used a minimal amount of hierarchy levels. When on the puzzle game page, I plan to have links to the different puzzle games that are playable on the website; all other pages will be accessible via the navigation bar.

Accessibility

My website will be fully committed to making sure that it is accessible for all possible users, in order to achieve this I will follow the guidelines as produced by the worldwide web consortium. As such my website will be fully compatible with mobile devices and desktop devices since the majority of web users now are using mobile devices (https://developers.google.com/webmasters/mobile-sites/). I will provide text alternatives for non-text content on any webpages and captions to help screen readers to understand pictures and links. I will also make sure that all text is readable and is displayed in a logical order and that the sizes of any elements on the page are appropriate for both mobile and

non-mobile users. I will also be creating all my styles within a separate CSS file, so that a user could apply their own style rules to the website.

Menu System

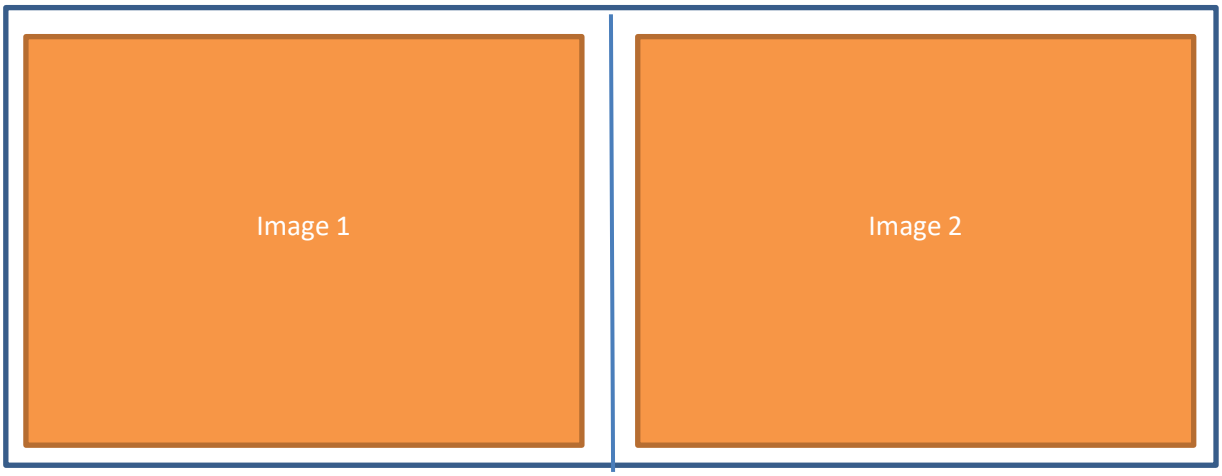
The menu system I will implement will differ between the desktop and mobile versions. This is following careful consideration of the various menu types at the following website which shows which menu types are appropriate depending on the screen resolution of a user's device: http://responsivenavigation.net/index.html. For the desktop version I intend to implement a Top Navigation bar since this is the perhaps the most common and most familiar menu system approach found for large screen devices and is suitable for a responsive web design. However, there is a con to this menu type in that it will not scale very well for mobile users and would consume most of the screen height. Therefore, for my mobile implementations I will use a Fly in menu system that will appear when the menu icon is clicked by a user, hence freeing up space for other elements of the web page.

Design Mock-ups

In order to design wireframes for my website designs I used the software package "Balsamiq Mock-ups". The designs that I have created all follow a consistent layout theme to allow for a sense of familiarity across web pages. Included within my wireframe designs is a "narrow" version of each web page to show how the contents of that web page will alter when resized by the user. I intend to use two different breakpoints that will alter the appearance of the website between mobile, narrow and desktop views depending on the browsers screen resolution. I will also use tweak points to resize particular elements on the web page such as text as the size of the browser window changes. Along with this i intend to make the elements of the web pages resize to a percentage of their parent element so that the size of the web content will still be viewable in a minimized form.

Puzzle Game Design

The puzzle game I intend to implement is the Spot the difference game; it will contain some simple line drawings with a maximum of five differences per puzzle. The game will have a minimum of three different Image sets to begin with but will include the ability for future extensions. A user will be able to move to the next puzzle using a clickable button. When the game is complete an animated congratulations message will appear on screen. I intend for the game to be fully operational on mobile devices as well as desktops. By implementing the game I will try to consider accessibility by adding precise instructions on how to play the game along with appropriate image and canvas sizes. An example of what the design might look like is below:



Home Page

The home page of my website will include a basic introduction to the website and help to entice the user so that they wanting to find out more. It will generally explain the purpose of the website and the functionality of the website along with a review sample, a sample about the founders and a top five puzzle list.

Figure 1 Home Page - Desktop

Figure 2 Home page - Desktop (Narrow)

Figure 3 Home page - Mobile

About Us

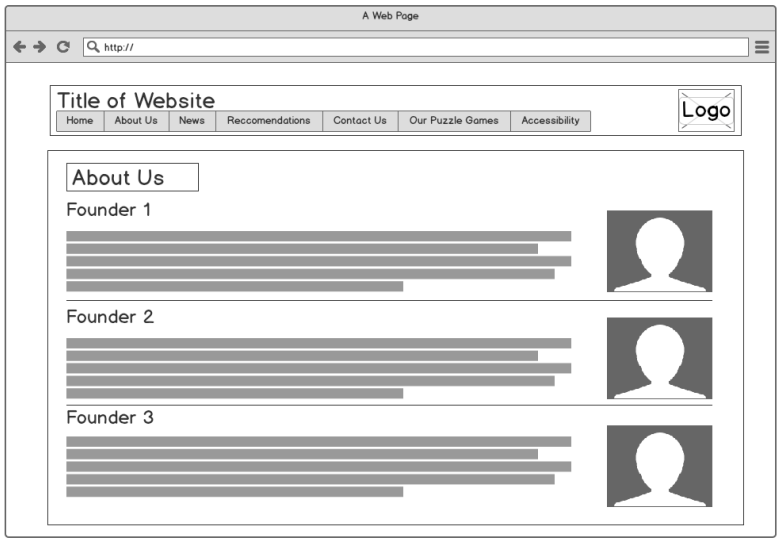


Figure 4 About Us - Desktop

Figure 5 About Us - Desktop (Narrow)

Figure 6 About Us - Mobile

News Page

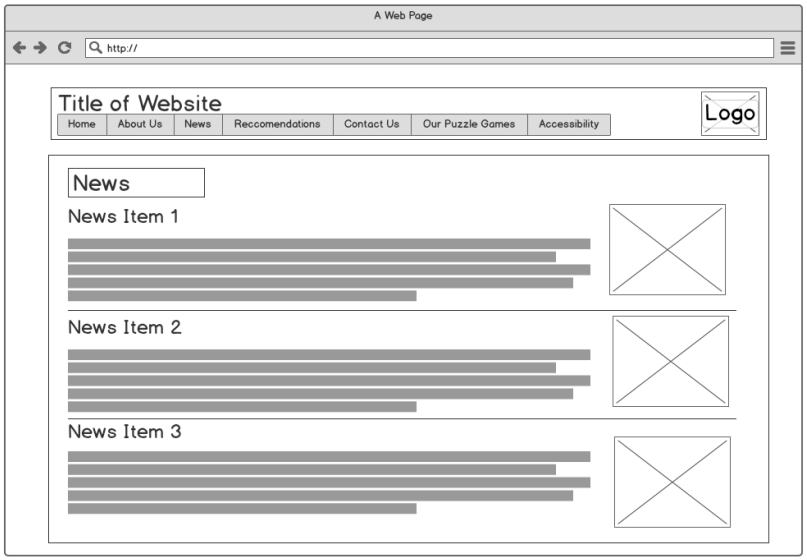


Figure 7 News Page - Desktop

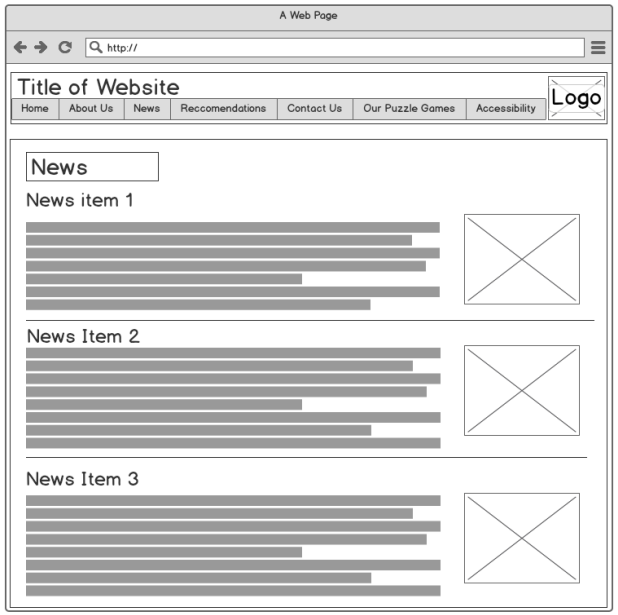


Figure 8 News Page - Desktop (Narrow)

Figure 9 News Page - Mobile

Recommendations Page

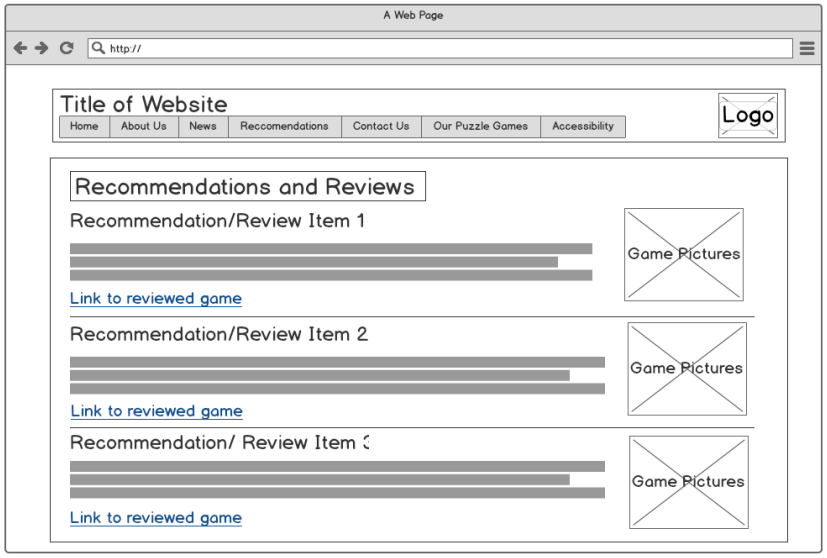


Figure 10 Recommendations Page - Desktop

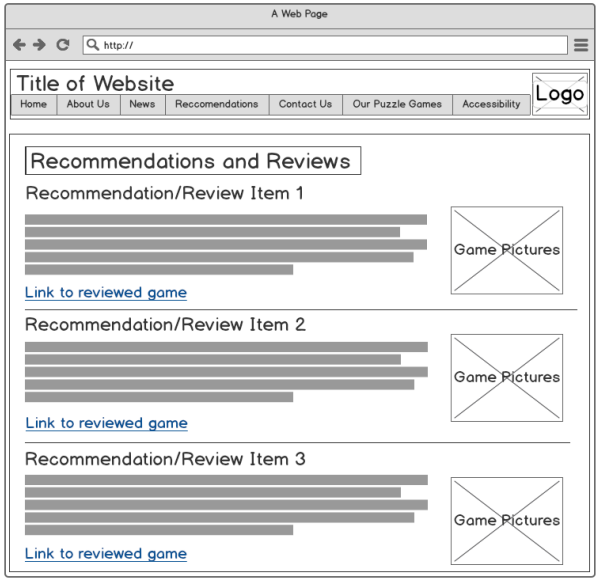


Figure 11 Recommendations Page - Desktop (Narrow)

Figure 12 Recommendations Page - Mobile

Contact Page

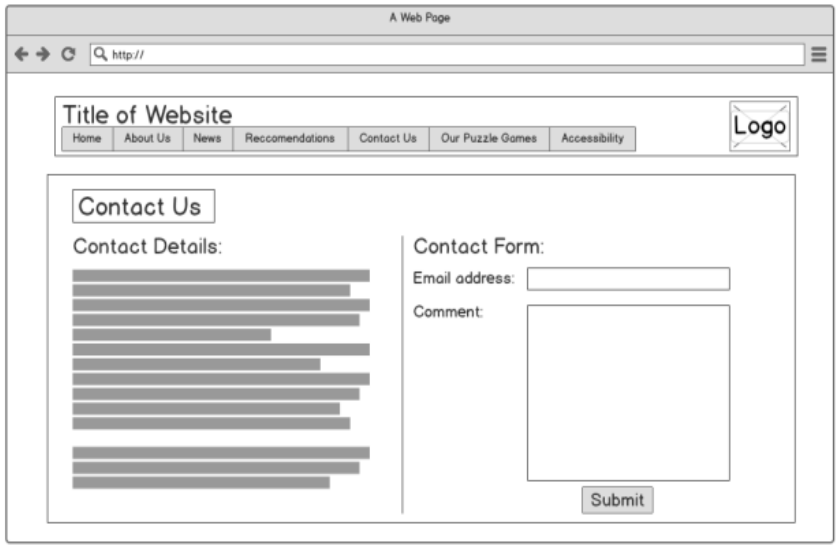


Figure 13 Contact Us Page - Desktop

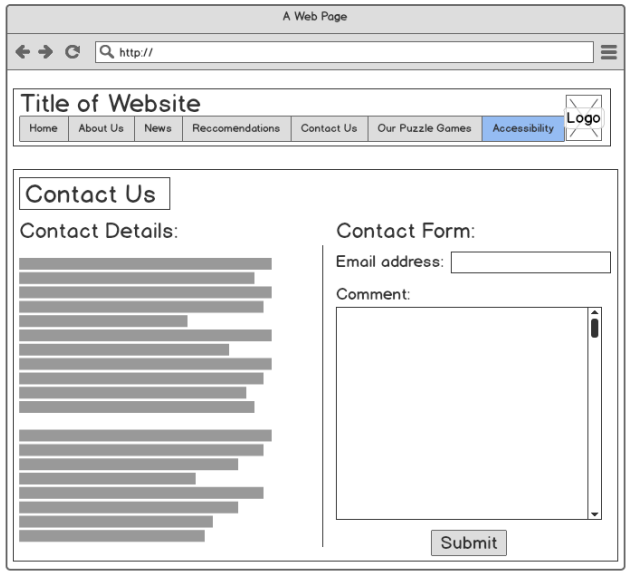


Figure 14 Contact Us Page – Desktop (Narrow)

Figure 15 Contact Us Page – Mobile

Accessibility

Figure 16 Accessibility Page - Desktop

Figure 17 Accessibility Page – Desktop (Narrow)

Figure 18 Accessibility Page – Mobile

Our Puzzle Games

Figure 19 Our Puzzle Games Page - Desktop

Figure 20 Our Puzzle Games Page – Desktop (Narrow)

Figure 21 Our Puzzle Games Page – Mobile

Example of an Implemented Puzzle game page

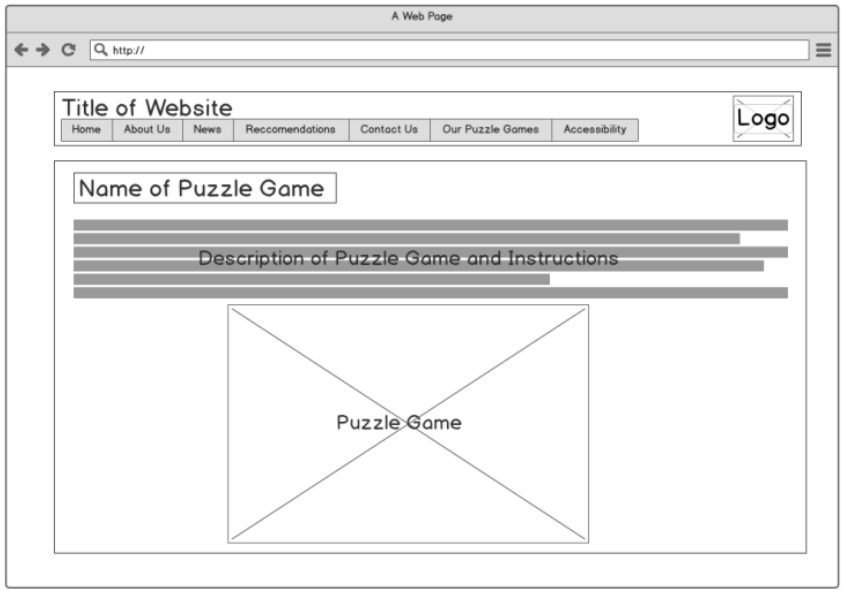


Figure 22 Puzzle Game Page – Desktop

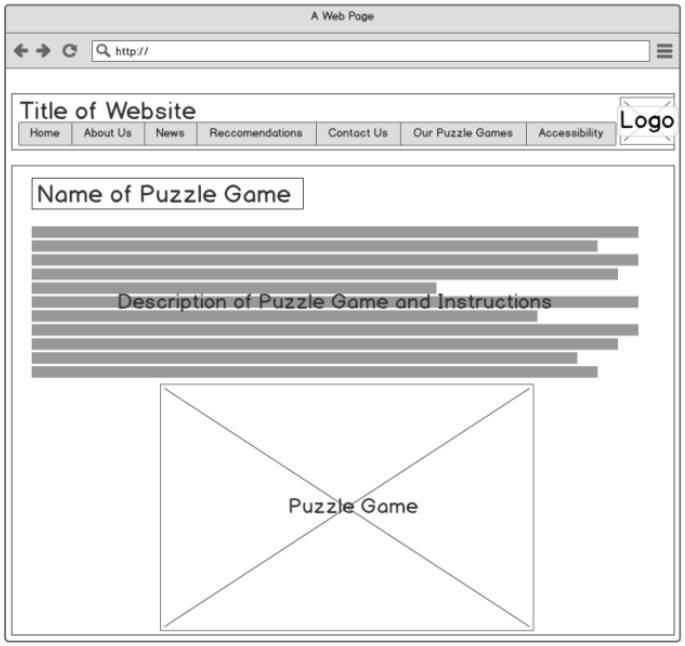


Figure 23 Puzzle Game Page – Desktop (Narrow)

Figure 23 Puzzle Game Page – Mobile