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| CSCU9N5 |
| Master Muay Thai Web Application |
| 2331387 |

**Title of my application:** Master Muay Thai

**Main HTML File:** “index.html”

**Master Muay Thai**

Master Muay Thai is an interactive web application that makes use of HTML 5, CSS and Javascript. Its main aim is to give people the information they need to master the sport of Muay Thai boxing.

The web application will be accessible on any mobile, tablet or desktop device that has an internet connection and browser. The application will be fully responsive and adjust according to the screen size of the user's device.

**Who is Master Muay Thai aimed at?**

Master Muay Thai is aimed at the following people:

* Those who want to have a Muay Thai fight.
* Coaches that want to stay up to date on the latest performance information for Muay Thai fighters.
* Fans of Muay Thai who want to keep up to date with the latest fights.
* People who have hit a plateau in their Muay Thai training.
* Professional Muay Thai fighters that want to analyse fighters.
* Those who have just started Muay Thai and have a basic understanding of the sport.
* People who train Muay Thai to improve their fitness.
* Fighters that have just started to fight and want to become more competitive.
* People training Muay Thai who are trying to stay motivated.
* Other Martial Artists who are considering training Muay Thai in the future.

**Who is the website not aimed at?**

* Someone that has never heard of Muay Thai boxing. The website is for those who are seeking mastery and self-improvement, not an introduction to the sport.
* Someone with no interest in improving their fitness or Muay Thai ability.
* Someone not interested in anything to do with Muay Thai.

**Personas**

**Name:** Dave Jones   
**Job:** Financial Analyst  
**Age:** 29 **Muay Thai Ability:** Training 2 Years **Preferred viewing method:** Mobile DeviceDave has been training twice a week for two years now, he started training to lose weight and increase his confidence. However, he quickly fell in love with the sport. Daves main goal is now to be a Muay Thai fighter. He wants to be a fighter because he believes Margret from the office will pay more attention to him.

Dave doesn’t have a lot of free time as a financial analyst, the only time he gets to himself is on the train in the morning and on his way home in the evening. Therefore, he uses Master Muay Thai on his mobile. So it is critical for Dave that the website viewed from a mobile device is easy to read, uncluttered and quickly provides him with the information he wants, because Daves time is limited.

Dave doesn’t have time to deal with media on pages that aren’t responsive. He doesn’t want to spend a lot of time searching either, so he wants content regularly updated on the homepage so he can find something new to read straight away. One day he hopes to escape his cubicle and become a fighter living on the beaches of Phuket Thailand.

**Name:** Ben Roberts  
**Age:** 46  
**Job:** Muay Thai Coach/Gym owner  
**Muay Thai Ability:** Ex professional fighter with over 300+ fights   
**Preferred viewing method:** PC in his gym/Tablet at home  
  
Ben is a coach that is working with a group of uninspired fighters, Ben is experiencing a decline in the number of people who are taking his class.

Recently Ben has been experiencing complaints of the class being repetitive and boring. His business could close if Ben doesn’t make a dramatic change. Ben is getting more and more frustrated as he only knows the old school ways of teaching, he knows they work, but with the rise of MMA people don’t want to just skip rope and hit pads. Bens customers want the newest and best techniques. Ben has very little idea where to find the newest techniques. Ben is quite scared of the internet. He wants a website that clearly lays out new articles and information; in a clean concise manner that isn’t confusing.

Ben needs to be able to access this information on both his office desktop and his tablet. Ben wants this information at the ready for the many different classes he holds.

Beginners regularly come to the classes so he wants something that he can show to new people to quickly guide them through the techniques. Ben would like video to play a heavy element as he believes seeing and then doing is the best way, as it is how he learned.

When he’s at home after a rough day ben likes to take out his tablet and find some old fights to watch (mostly his) as he likes the nostalgia.

**Name:** Josh Bell   
**Age:** 25  
**Muay Thai Ability:** Up and coming Muay Thai Fighter  
**Preferred viewing method:** PC/Mobile  
  
Josh is an upcoming Muay Thai fighter who lives and breathes Muay Thai, he is well on the way to mastery as a fighter.

Josh isn’t concerned with any of the beginner material; he just wants the latest and best in conditioning, nutrition and strength training information specific to Muay Thai. He knows he has to train smarter not harder than his competition because his time is limited.

Josh doesn’t have time to search the internet every day as he trains 5 hours a day and then works in fast food. He reads up on Muay Thai on his mobile during rest periods in training, or on his break during work.

Before training every day Josh watches his Muay Thai fight videos to easily motivate himself, so he want’s easy access to a new video every day without the pain of searching.

When he gets home he likes to watch the latest fight videos so he can stay up to date with his competition, so he needs access to the most recent fight. Josh also likes highlight videos as they provide him with inspiration.

**Name:** Margaret Bell  
**Age:** 70  
**Muay Thai Ability:** Zero ability  
**Preferred viewing method:** Ipad

Margaret is Josh’s mother she feels like ever since Josh has set his goal on becoming a professional fighter, she has lost touched with him. She feels like their relationship is slowly drifting apart.

She is aware of what Muay Thai is, as Josh never shut up about it but Margaret had never looked into Muay Thai until Josh turned professional. Margaret can’t afford to watch Josh fight in Thailand as she is living off a government pension. So she wants to quickly and easily be able to find her son’s fights, she doesn’t care about the other fights.

Although she is unable to train herself because of her bad hips. She likes to research for her son as she knows he is busy with training and work. Margaret wants to know everything that will help her son improve as a Muay Thai fighter. She hopes that if he gets good enough he will eventually be able to afford to move out.

However, in her old age, Margert’s eyes aren’t what they used to be and she struggles with colors. Technology isn’t really her thing so she wants something that is clear to navigate.

**What information and functionality does   
Master Muay Thai need to have?**

I concluded that the information and features that Master Muay Thai must have are as follows:

* The different techniques available to a Muay Thai Fighter, and information on performing these techniques.
* The rules of a Muay Thai fight.
* An understanding of how the scoring system.
* Access to old fight videos, new fight videos and highlight videos organised by popularity or newness.
* Information about conditioning, strength training, and nutrition to improve one’s fitness, health and fight performance.
* An understanding of the culture: History, Music, Life of a fighter and traditions.
* The ability to listen to and download traditional Muay Thai Music.
* Ensure that any user regardless of their device size can access the information in an appropriate pleasant way.

**My design process**

Using this information I proceeded to create wireframe designs for each of the main individual pages I would need.

I have some experience in web design and development, so I’m confident in what I can and can’t do. This allowed me to design wireframes that I can accurately create in HTML.

Users will access Master Muay Thai through mobiles, tablets, laptops and PCs; because of this I knew that major pages would have to be responsive across all screen sizes. To help me achieve this I decided that I would be using the Bootstrap framework.

With Bootstrap in mind I knew that I would be able to hide or display content based on screen size, and that the column system could be manipulated to exactly how I wanted the web page content to appear.

Knowing this allowed me to build wireframes and make decisions specific to page layouts with the knowledge that I could replicate it.

I decided a multi-page web application was the only viable option because there were too many requirements to fit it into a one-page website without the user interface and navigation getting overwhelming and confusing.

The first thing I did was to write down absolutely every web page I would need.

This started with the different Muay Thai techniques. Muay Thai is known as the art of eight limbs, this means that striking element is made up out of punches, kicks, knees, and elbows, fighters can also clinch and perform defensive techniques. This naturally formed a clear hierarchy in my mind.

“Techniques” would have to be the parent page, with the different techniques each having their own page that would then contain the information about the different styles of that specific technique such as super-man punch, spinning elbow and axe kick.

For these child pages I decided they would probably have to be split up into beginner and advanced technique sections as a beginner will get overwhelmed if they see axe kick as their first tutorial if they arrive at the kicks page.

I then started to think about a logical way to cover the different aspects of Muay Thai Training, to do this I looked up a dozen or so Muay Thai websites and noted the good and bad article layouts. Before final settling on having nutrition, conditioning, and strength organised under a “Performance” parent page.

I decided to break down Muay Thai culture into: music, traditions, history and a typical life of a fighter.

As Muay Thai is combat focused this means that people start sparring early on in their training. Anyone who sticks with Muay Thai will most likely want to actually participate in an actual fight. If your training, technique and diet are goof you only need to understand two more things in order to fight. You need to understand the scoring system and the rules of a fight. I created pages for both and stored them under the parent page “Fighting”.

The final pages I created where related to Muay Thai videos. The majority of media content for Muay Thai is in the form of video so it was a logical decision. Video is also becoming the preferred way to consume media for many so I wanted a logical organisation for videos. I figured I would need fight videos and highlight videos. However, there are so many recorded Muay Thai fights, that I decided there needed to be a page for the popular fights and a page for the most recent fights.

From this thought process I had all the pages the website would need listed on paper. I then went on to my computer and created a html file for each of these. From this information I was able to create a navigation hierarchy.

C:\Users\rki\Downloads\Hierarchy.png

The hierarchy consists of top level sections, sub sections and then the sorting sections which sort by popularity or how new the content is. After a couple of iterations this was the best design I could come up with to allow the user to logically and quickly find the content they wanted.

From this information I could begin work on my header navigation bar as I decided a consistent header navigation bar and footer navigation bar across the entire website was the best option for usability.

**Header navigation bars**

C:\Users\rki\Downloads\NavigationLayouts.png

As one of the main focuses of my design was a responsive design I opted to go for two different navigation menus, one for medium to large screens and one for small to Extra small screens. This is because users will navigate the website in completely different ways based on the size of the screen of device.

For medium to large screens I opted to go for a traditional structure of logo in the left hand corner that will always link back to the home page regardless of where the user is on the website. This provides a quick escape route for the user if they are feeling lost. I planned to use a sticky header navigation menu so that the user will always have the navigation bar visible without having to scroll.

My navigational hierarchy translated well to a drop down menu, for techniques, performance, culture and fighting. At this point I realised that improve performance would be more appropriate and that videos should not be a drop down menu as popular fight videos, recent fight videos and highlight videos where to long, and the user’s choice would largely depend on the fighters in the video.

I then decided a search bar would have to be included. Due to all the different types of content and because some users prefer to ignore navigation menus all together and type exactly what they want. I wanted this option available at all times and not just on certain pages so I placed the search bar in the header navigation.

**Mobile header navigation bar**

The mobile navigation bar had to be sticky as it will be the only way the users of smaller screen devices would be able to navigate the website.

I choose a hamburger menu with a logo on the left.

The menu is vertical as opposed to horizontal, however it remains in the same order as the desktop version. The consistent order is for users that access the website via both small screen devices and larger screen devices.

The main difference is that the search bar stretches across the bottom, because on the mobile version of the website, the search bar is only visible when the hamburger is clicked so it needs to be a clear that it is there.

From there it was time to figure out the layout of the footer menu as every page had to contain a footer menu.

C:\Users\rki\Downloads\Footer.png

Because I was planning to use bootstrap I was aware that the footer menu would automatically stack vertically instead of horizontally on smaller screen devices so I did not need to create an alternative footer design for mobile devices.

Again the footer navigation bar follows a traditional three column layout. The header logo links to the homepage so I wanted the footer logo to also link, to stay consistent.

However, as an addition I decided a textual link to the home page, titled “home page” would be a good addition for users who weren’t aware that a logo could be used to get back to the home page.

The about page and contact page are important for the application but I don’t think they are important enough for the header navigation menu. So I included them in the footer menu.

In column two I decided a location, phone number and email address would be the best thing as this means contact information will be displayed clearly on each page.

Finally, a short about page paragraph containing a concise description of the application and links to social media would be important, as a lot of people tend to favour communicating via social media instead of traditional methods like email and phone.

Now that I was confident I had my header and footer menus I could begin the wireframe designs for the main pages of my website.

The following pages are what I deemed to be the essential pages that I needed to have designed in order to show a working prototype, for this reason I created a wireframe for each:

* Home page desktop
* Home page mobile
* Navigation bar search results page
* Scoring page.
* Video parent page
* Video child page
* Improve performance parent page
* Improve performance child page
* Techniques page parent
* Techniques Child page
* Life of a fighter page
* Music page
* History page
* Example article layout page.

A big focus for all of these wireframes is the use of sections, with each section serving just one purpose because if a website offers to many options or features in a single section it often leads to the user being overwhelmed. Having clear divisions and white space allows the user to quickly scroll through pages without hesitation. It also improves readability, and usability.

I made the decision to include breadcrumbs on every page as it provides quick and easy navigation for the user to get back to where they have already bean and to find similar content easily.

Every other page would be a content page and as all content pages follow a similar layout there is no need for wireframes.

**Home Page (Medium to Large screen size)**

As the home page is the first thing the majority of prospective users will see and judge to see if the website is worth their time a lot of thought went into the design.

C:\Users\rki\Downloads\HomepageDesktop.png

Having a different home page displayed for users using medium to large screen devices compared to smaller screens is essential. As more information can be offered on the bigger screens. For this reason, I created a wireframe specific to medium to large screens.

The home page acts as a central hub, and I want to guide the user to what they are looking for immediately. Which is why a carousel linked to specific, popular articles is the first thing they see upon arrival. For repeat users it quickly gives them a path to the newest featured content and for first time users it is an attractive non obtrusive way of giving the user a taste of what the website offers. A moving image also catches their eye making them more likely to click.

The carousel of featured content and recommended articles are above the fold as it is what I think most users will naturally progress to on their second click of the website.

Next a clear divide between the carousel and the latest articles a title clearly separates the two sections. This section is more catered to repeat users of the application, as they will be the ones wanting the latest content without having to go through the navigation menus.

The article thumbnails are there to attract the user to the article. It is necessary that the thumbnail images link to the articles as well as many users will already have this functionality in mind from past websites. However, a title will also be there that will be linked, for users that prefer textual links. A short description of the article will also be visible to entice the reader to click.

Muay Thai music is one of the least understood aspects of Muay Thai but it is a critical part of Thai culture, for this reason I decided to dedicate a section to music. To actually get the users interested, I decided an animated music player, with a single option to play would be clear and intriguing. With a short instruction title above it so that users know it is a music player and not just an image. Adding a more music button below Is important because upon hearing the music if a user was interested I wanted to make sure they can access the music without going through the navigation.

The next section is dedicated to social media, as social media is more important to information based websites than ever, getting the users attention to actually connect with Master Muay Thai on social media needs to stand out. A clear title and three buttons ensure that if the user is interested in connecting they easily can.

Finally, the video section, the video section is there to make the user aware of the video functionality and extensive video library on the website. The big video will be the most popular video on the website, and the three smaller ones are the the 2nd, 3rd and 4th most popular. As I’ve found it difficult to find the best Muay Thai videos myself in the past. Having them on the home page is critical in letting the user know this library exists. The view more button directs them to the video homepage, this is important, as it is very easy to miss “video” in the many options of the navigation bar.

**Home page (extra-small to small screens)**

**C:\Users\rki\Downloads\HomePage - Mobile.png**

Although the layout works well above it would be too much for a mobile. A moving carousel would be too cluttered on a mobile screen and loading times would be too high with the four embedded videos from Youtube.

For this reason, a more streamlined home screen appears on mobiles.

The carousel is removed completely and the title is centered. It’s centered to be in align with the three vertical articles that will display. With sufficient white space on either side of the article. The thumbnails will still link and the title and short description will remain.

The main purpose of this is for mobile users who quickly want to read the latest article, so they can load the homepage and immediately have three choices in less than two seconds. Decide if they are interested or scroll on down the page.

I decided to keep the music player as many people will arrive to the website while on their mobile for the first time. I think the animated music player is a stand out feature that grabs their attention. It also allows them to share the music with people they are currently with through their phone speakers. Which is good especially as a lot of people are on their mobiles before training.

Next is the social media section, this is more important on mobile, as users will most likely have Facebook, Twitter and maybe Google+ notifications enabled on their mobile. Which means if they connect they will get notified when new articles are posted which makes them significantly more likely to revisit the website.

Finally, I decided to completely restructure the video section for two reasons, loading times and usability. With four embedded videos a lot of mobiles would struggle with the loading time. Also it’s quite an effort to scroll through four videos. For this reason, I opted to display just one video. A lot of people just like to watch one video to motivate them before training, however watching the same video can become boring and repetitive. Therefore, I changed the title from “popular videos” that displays on larger screens to “today’s most popular video” which will change every day.

For experienced repeat users they will know to find a new video every day before training all they will have to do is open the website and scroll to the bottom as opposed to searching the internet.

**Navigation search bar results page**

C:\Users\rki\Downloads\SearchResults.png

I believe there will be two primary ways to navigate the website, through the navigation menu for new or experienced users who don’t know what they want to read and the navigation search bar for users who know exactly what they want or don’t want to have to go through the navigation system.

For this reason, I had to figure out the optimal way to display results. As there are only two forms of content on the website, articles or videos I knew I would need at least two sections.

I decided to place articles first a this is what I believe most users will be interested in. With the plan to display the top three results based on most relevance. There will also be a view more button that will load more results if the first three aren’t what they are looking for.

A view more button is a better design than loading more results for two reasons. If they are looking for a video instead of an article the video results will still be visible above the fold, secondly loading time of the results page will be decreased. More results can be loaded if a user wants more and is willing to have a longer load time. They won’t be forced to endure a longer loading time if they just want the top result.

The exact same is then duplicated for the video results, with the thumbnail, title and description of fighters in the videos. Again a load more button is included for the same reason.

I included a search bar at the bottom of the page as well, my reasoning behind this is if the user reaches the bottom of the page they haven’t found what they are looking for so they will likely need to search again.

In the case of no result, I would just have no results found and a search bar asking them to search again. I didn’t do a wireframe for this as it would require a fully functional search system for this to work. It would be included in the final version of the website.

There will be separate html pages for both article search results and video search results, for when a user searches specifically for a video or an article.

**(Scoring System Page)**

C:\Users\rki\Downloads\Scoring.png

Scoring in Muay Thai can be confusing, while doing my research on scoring I quickly became frustrated as most websites where boring, lengthy and unclear.

For this reason, I decided an interactive JavaScript application would be the best way to convey the Muay Thai scoring system.

Arriving at the page the first thing users will see is a question directly addressing. It is very likely that the user is indeed confused as they are on the page. This title will therefore grab their attention as they feel like the webpage is directly speaking to them.

This will be the only page that plays music automatically for two reasons, it will alert the user that it is something different, and secondly Muay Thai fights always have music playing, and as scoring is directly related to a fight.

However, Sound can be quite obtrusive to some users, although I plan on making the sound play automatically, the option to toggle it off should be the first button that appears for the user.

To keep the users attention I plan to have an animated May Thai fighter that punches kicks and moves forward. This will catch the user’s attention and draw their eyes to the begin button.

Once they click the begin button it changes to the next screen. A begin button is necessary to show that this is an interactive application and not just, a normal section in the web page.

From there a button menu will be displayed on the left hand side. A sound toggle in case the music is starting to annoy them, and on the right hand side they will have a clickable fighter. My thinking behind this is that they will chose a technique and then click an area, getting real time feedback to how different techniques in fights score.

This seems to be a lot more interesting than a lengthy page of text. On smaller screens I plan to have it adopt a vertical orientation instead of horizontal.

**(Video parent page)**

C:\Users\rki\Downloads\VideosParentPage.png

As video is becoming more and more popular as a preferred method of media, I’ve tried to arrange the layout of the video parent page in the most logical way.

The video parent page links to three child pages, popular fight videos, recent fight videos and highlight videos. The three categories that all Muay Thai fight videos can be classified into.

I’ve opted to put the search bar at the top of the page, as this is what people typically expect to find on video websites. There is a difference between the video search bar and the navigation search bar, the video search bar one will only return video results. As the user has made an effort to get to the video page, they won’t want articles to display when the search for something. This search bar will have the ability to filter by highlight or fight videos.

Each section will have for columns, three videos and a few more button. A consistent design with the articles allows the user to quickly establish the websites layout and allows them to navigate it quickly. While building up their mental model.

The only other note is that highlight videos where not subdivided into popular and recent highlight videos, as highlight videos are not produced very often, there are only a couple of videos per year. So it made more sense to just have highlight videos.

On mobiles the thumbnails are responsive so they shrink and everything will get stacked vertically.

**(Video child page)**

**C:\Users\rki\Downloads\VideoChildPage(HighlightVideos).png**

If a user clicks the view more button in one of the parent video section, they will get redirected to the relevant child page. There are three child pages: popular fights, recent fights and highlight videos.

On each of these pages, they will immediately get presented with a search bar. This search bar will be specific to the category of videos they are on. So if they search the highlight search bar highlight videos will appear.

From there I decided to sub divide into two sections, popular fight videos and recent fight videos. Although there aren’t many recent highlight videos if the user has reached this section they are obviously interested in highlight videos so I thought the sub division would be a more organised way to present the videos.

Finally, the view more button will load more videos. Similar to the articles page a view more button is beneficial as It decreases loading times compared to loading these pages with countless videos, and allows users to load more if they see nothing they are interested.

For the child pages I will also have a numbered list at the bottom to allow people to skip to the next page of results after the view more button has been clicked more than twice.

I did not place a view more button under the popular videos section, because the top three highlight videos are the ones that are by far the most watched on YouTube so there is no close fourth contender so I felt there was no point including more.

**(Improve performance parent page)**

**C:\Users\rki\Downloads\ImprovePerformanceNavigation.png**

The improve performance page is the parent page to: Strength, Nutrition and conditioning. The important thing to note about the improve performance page is that it is not available through the navigation menu. This is because the navigation menu uses a dropdown. However, it is accessible through the breadcrumbs functionality in the website. If a user wants to go back to a page that displays the different categories of performance they are directed here.

It’s a simple page with three thumbnails that redirect to the improve performance child pages. This allows the user to find their information in a logical clear style.

One difference in the mobile version is that the thumbnails are not visible, instead text links will be displayed. As this page offers no content I want people on smaller devices or screens to be able to transverse through it as quickly as possible.

**(Improve performance child page)**

C:\Users\rki\Downloads\ImprovePerformanceChildPage(Conditioning).png

If the user, then clicks on one of the links in the parent page they will get directed to the appropriate child page.

The child page will be split up into two sections, for first time or newer visitors there recommended articles are displayed first. Which will have four thumbnails on display.

Then for repeat visitors there will be a latest article sections, with thumbnails and short descriptions. The view more button is only available in this section because the recommended articles only takes the top four popular articles into consideration assuming that because they are popular they are good.

The search bar for articles will be located on the bottom instead of the top. This is because users won’t typically know a specific conditioning topic they want to cover. If they do they will have the ability to search via the header navigation bar search bar, but it’s safe to assume if they haven’t found something that interests them and they reach the bottom of the page they will want to search for a specific topic.

**(Techniques parent page)**

C:\Users\rki\Downloads\Techniques Navigation Page.png

The techniques page is very similar to the improve performance parent page. I’ve opted to go for two rows of three columns, with the broken down techniques from the navigation menu.

Again this page’s main purpose is for those using the breadcrumbs to navigate the website. Or when a user finishes a technique content page and is redirected here.

On smaller screen devices the thumbnails are hidden as well to allow the quickest possible navigation time without the need for the user to scroll.

**(Life of a fighter)**

C:\Users\rki\Downloads\LifeOfAFighter.png

The life of a fighter page is one of the child pages of the culture parent page. The culture parent page follows the same layout of both improve performance and techniques pages.

For the life of a fighter page, I decided to go with just a video, as I was aware of a brilliant video that summarises the day in a life of a fighter. I felt this was more likely to grasp the reader’s attention as opposed to just text and images.

The most important part of this page is probably the learn more about the culture link at the bottom. This link redirects back to the culture parent page. This keeps the reader in a logical loop. If the user has watched the video and is still on the page they are most likely interested in learning more about the culture. For this reason, it is likely that they will want to get redirected back to the parent culture page and this saves them having to scroll back to the top to use the breadcrumbs or navigation menu. If no options are presented at the end of the page it is likely the user will leave, which is why every content page has a link at the end.

**(Music page)**

C:\Users\rki\Downloads\MusicPlayer.png

The music page is probably one of the most interesting pages for the user. It follows the same structure of using a row with four columns so that the user isn’t put into an unfamiliar situation, the layout staying consistent to the other pages.

The animated music players are more eye catching than a normal play button for two reasons. When the user clicks the button they get feedback from the animation, this will make them much more likely to click the other buttons.

I don’t include the names of the songs as they are in Thai, and the majority of readers will be western speakers. The download buttons are placed directly below each player so that they can download it if they are interested, instead of having to search the internet for a downloadable link. It is likely that they will want to use this music for sparring, training or their own fights. I also plan to include a link back to the culture parent page as well.

**(History page)**

C:\Users\rki\Downloads\HistoryPage.png

The main problem I could foresee with the history page, is that there will have to be a lot of text involved. So I tried to devise a more creative layout.

A timeline design seemed to be the best bet this is more eye catching and interesting than a lot of text with occasional images. I plan to make it interactive, with alternating sections, each with its own associated image. As users want to learn about the history of Muay Thai, but don’t want to read long passages of text.

**(Example Article page)**

C:\Users\rki\Downloads\ArticlePage.png

Article pages are where the actual content will be displayed. Every article page will have slightly different layouts but will follow the same layout rules. They will all feature breadcrumbs for clear navigation and a title with the name of the article.

Article text can be displayed will bullet points or in normal paragraphs.

Whitespace is essential for the article pages as it allows the reader to easily track and follow without being distracted. Whitespace makes it much easier to focus improving both readability and the ability to scan the pages.

All article pages and media will be mobile responsive. This is crucial as a lot of users will read articles on their phone so there is a big focus on delivering uncluttered scan able content.

For this reason, I have decided that text can-not wrap around images or videos. The whole idea being that the user should only have one thing to focus on at a time; either look at an image, read text or watch a video. This makes scanning and absorbing the information much easier. It keeps everything uncluttered and clean.

Images can be displayed as one, in a two column row or a three column row depending which is more appropriate.

Videos will always have sufficient white space before and after the video to make clear it is a video.

Finally, at the end of the page there will be a link to go back to the parent page to find more articles. Because if the reader reaches the end of the article it is likely that will be interested in learning more. Presenting them with a link prevents them from having to scroll from the top and keeps them on the page for longer.

I would also like to implement a comments section and article thumbnails that display results based on the past articles of readers. But these would have to be implemented in the finalised version. For the prototype this works nicely.

**Hierarchical Task Analysis**

**(Ben Roberts – Find Bukawaw fight video)**

Ben Roberts wants to find a fight video of his favourite fighter Bukawaw. Bukawaw is the most famous popular Thai boxer of all time. This will be a popular specific task that a lot of users will want to complete.

Finding any fight video can be done in two steps or less in multiple ways so I didn’t think that would be a good task analysis. Instead I decided to go with a more difficult task analysis of finding a specific fighters fight video.

There are variety of different logical steps Ben can take in order to achieve this goal. I’ve included them below from quickest (Least clicks) to slowest (most clicks), following a logical decision making process. The majority of the following methods can be completed from any page on the website. But for clarity I’ve started on the home page. If Ben had started on the videos page the results would all be one step less.

**Using the navigation search bar**

C:\Users\rki\Downloads\Untitled Diagram (42).png

The quickest path for Ben is too:

1. Use the header navigation search bar to search for “Bukawaw”.
2. He will then choose whatever fight video he wants out of the top three results.

**Not using the navigation search bar**

C:\Users\rki\Downloads\Untitled Diagram (37).png

If Ben doesn’t utilise the navigation search bar on the homepage his logical move will be to click the videos button in the navigation bar.

Depending on if Bukawaw has fought recently or if he is one of the most popular fight videos which is highly likely, it is possible that Ben could be watching his fight video in two clicks. As all Ben would have to do is click on one of the videos in the most recent or popular fights.

However, if Bukawaw doesn’t appear in either of these results. He can utilise the video search results bar at the top of the page. That will allow him to search for Bukawaw, and will display the most relevant results.

From the video results page Ben will be presented with Bukawaws fight videos and in which case he will just have completed the task in three clicks.

**Ben doesn’t want to use any search bar and knows that Bukawaw is the most famous and popular fighter in the world.**

C:\Users\rki\Downloads\Untitled Diagram (44).png

As Ben is a big fan of Bukawaw he is most likely aware that he is the most popular famous Thai fighter on the planet. Using this information without using any search bars I determined that this would be his most logical path.

1. Click videos in the header navigation menu.
2. There is a high chance one of Bukawaw’s fights will appear in which case he can click that. If not, he would click on “view more” in the popular fight videos. In which case Bukawaw would appear in one of the columns of popular fight videos and he would click on it.

**Ben doesn’t want to use any search bar and doesn’t know that Bukawaw is the most popular fighter in the world.**

C:\Users\rki\Downloads\Untitled Diagram (45).png

In the case that Ben wants to look for a specific fighter but wants to avoid all search bars his best case scenario is two clicks and his worst case scenario is 4+ clicks however that route is highly illogical as it would mean going through every fight ever in most recent to oldest order until he eventually stumbled across a Buakwaw fight.

1. Ben will naturally click videos.
2. He may get lucky at this point and see that Bukawaw’s fight is in the recent fights or popular videos depending on the day he attempts this.
3. If he is unlucky he will either, choose to view more popular videos or recent fight videos. If he chooses popular fight videos he will be able to click a video as Bukawaw is the most popular fighter. If he chooses recent, he might get lucky if Bukawaw has fought recently although this is unlikely. In which case he can either view more and go through every fighter ever (Illogical and time consuming but possible) or he can use the search bar that will be clearly displayed with the text “couldn’t find what you were looking for”. In which case he will have made it in four steps.

This task analysis made me realise that a restructure would be needed to the view more button after two clicks you would choose what page of results you wanted due to the vast quantities of fight videos on the web.

**Reaching the Bukawaw fight without using the header navigation bar or search bar.**

C:\Users\rki\Downloads\Untitled Diagram (47).png

It is also possible for Ben to reach a Bukawaw fight video without using the navigation bar or search bar at all.

1. Ben scrolls down home page, missing navigation bar and navigation search bar. Clicks “view more videos” in video section
2. Is brought to videos page. The choices from this system where explained in the previous diagram.

**Two highly unlikely situations that result in one click**

It is also possible that ben can find the video in the popular videos section if he is accessing the video on a medium to large screen device. If one of Bukawaw’s fights was the most popular of that day. Or if he is on his mobile, and it is the most popular video of the day.

However, this situation is improbable and requires him scrolling past the main navigation bar.

**(Dave Jones – Find out how to axe kick)**

Dave Jones has been training for two years and wants to master the axe kick.

Again, just like Ben there are a variety of different ways to reach the axe kick tutorial. Explained below from quickest to slowest with the improbable cases as well.

**Using the navigation search bar**

Unless a link to the axe is displayed in the latest articles or featured articles carousel on medium to large screen devices, using the search bar will always be one of the quickest methods for Dave to access the axe kick tutorial.

1. Use the header navigation bar to search for “Axe kick”.
2. He will then choose the axe kick link in the results.

C:\Users\rki\Downloads\Untitled Diagram (57).png

**Dave doesn’t want to use the navigation search bar**

C:\Users\rki\Downloads\Untitled Diagram (55).png

1. Dave uses the navigation bar to select techniques and then clicks on the kicks link.
2. From there Dave scrolls down the page to the advanced techniques and clicks either the thumbnail or the title.

Without using the navigation bar this is the most logical option.

**Dave has just finished learning about another kicking technique**

In this situation Dave has just read “low kick” tutorial for example which means he is not starting from the home page. In this case he has four options.

Number one is to use the navigation search bar which takes two clicks.

Number two is to use the navigation techniques dropdown which also takes two clicks.

Number three is to use the breadcrumbs at the top of the current article page and go back to the kicks page and select axe kick in the advanced technique stage. This also takes two clicks.

C:\Users\rki\Downloads\Untitled Diagram (58).png

His fourth option is to click the link at the bottom of every techniques page that brings him back to the techniques parent page. Where he will then have to click kicks, followed by axe kick tutorial.

C:\Users\rki\Downloads\Untitled Diagram (60).png

This link is at the bottom of every technique tutorial. The axe kick tutorial doesn’t link back to the kicking child page because just because a user is looking at a kicking technique does not mean their next natural technique will also be a kick. This is based on the class structure of switching between many techniques in a short period. Unfortunately, it results in an extra click in this case. However, I think in the long run it results in less clicks for every user.

It also means if Dave had started at flying knee he gets to the axe kick page in the same amount of time.

**Conclusion of task Analysis**

For both Dave and Ben there are options to get to any of the pages from any other page in less than three clicks if a logical path is followed, for experienced users or users using the navigation bar it can often be achieved in two or less clicks. For certain tasks it is possible to complete them with just one click on the homepage.

Every task I could think of could be completed in three clicks or less without using the search bar.

The final diagram shows the relationship between different content pages and the navigation between them.

I choose content pages as they are the most deeply nestled results. Ignoring all search bars and instead focusing on content. With the aim to ensure specific content can be found in three clicks or less.

C:\Users\rki\Downloads\Untitled Diagram (63).png

History of Muay Thai can be reached in one click from anywhere in the website using the navigation bar.

The Axe Kick tutorial can be accessed in two clicks or less from anywhere in the website.

The most recent fight video can be accessed from any page on the website in two clicks or less from any page in the website.

A strength article can be accessed with two clicks or less from any page on the website.

The 3rd click would then be used to specify very specific content or to load more results. However, for experienced users, new users and users that aren’t confident with websites following logical paths all content can be accessed in three clicks or less.

**Styling the bootstrap website.**

With my wire frames and task analysis completed. I was confident that I could begin building the bootstrap website.

Before building the stylistic elements I wanted to make sure the website would be accessible to as many people as possible. To do this I needed to ensure I had a list of disabilities and the knowledge to cater for each.

Dyslexic users find black text on a white background more difficult to read so I use a dark grey and an off colour white.

There are a variety of age related vision problems I would have to consider:

* Macular degeneration
* Diabetic retinopathy
* Cataracts
* Retinitis pigmentosa

All of the above conditions reduce sensitivity to contrast, and in some cases reduce the ability to distinguish colours. I also put a particular focus on accommodating to those people with color defiencies or color blindness.

* Deutreranopia
* Prontatopia
* Tritanopia
* Achromotopsia

The main problem colors for people with Deutreranopia or Prontatopia are red and green, for that reason I made a conscious effort to avoid those colours in any of my style choices.

Another decision was to ensure all images had alt tags for people that are blind or have poor vision. Images would also be optimised for the web to ensure loading times are as fast as possible.

No time limits will be set on the website to allow people with motor difficulties to navigate the website.

Because I’m using the Bootstrap framework I knew there were a variety of accessibility benefits that come with it. It provides a responsive framework, which means if users wanted to zoom the website content is responsive so it will change automatically.

Armed with this information I began designing the individual elements of my website. I used a variety of tools to determine the optimal colours for accessibility and aesthetics.

**NoColor Simulator:** to simulate low colour deficiencies and low visibility conditions.

**Contrast checker:** The contrast checker checks colours according to the Web Content Accessibility Guidelines. For each element I will test the colour combination for its enhanced contrast level below 18 font size with the top score being AAA, and test the contrast level for fonts equal to and greater than 18 with the top score being AAA, colours will also have their brightness and colour difference tested, a pass grade here meaning the combination is fully complaint and a test for complete colour blindness for greyscale. At the end of each individual stylistic choice I will include the Web Content Accessibility Guidelines summarised into one score for clarity: “AAA” means that is has scored AAA, AAA, fully compliant and +500.

**Header navigation**

The header and footer navigation bars where the first elements I decided to style and create as every page would have them. The header navigation menu automatically adjusts depending on screen size. There is a different style of navigation header depending on the user screen size. The header navigation style is comprised of the following:

**Header navigation background and font(Medium to large devices screens):**

The background colour of the header navigation bar changes depending on the size of the device you are viewing it on.

On medium to large devices, the colour is a very dark grey. I used this as it is much softer on the eyes than black, but it provides a nice level of contrast and brightness with the text.

The font I’ve chosen for the header is “Montserrat” there are a variety of reasons for this. Sans serif fonts have been shown to increase readability for people with dyslexia. Secondly, aesthetically I really like the font. It’s a beautiful and fresh looking typeface which I think works well for Muay Thai as it is an up and coming more beautiful combat sport.

*Web Content Accessibility Score: AAA*

**Header navigation search bar (Medium to large screens):**

The Bootstrap standard search bar original colours of Background: #5BC0DE and Foreground: #FFFFFF failed the Web Content Accessibility test. So I edited it to make it a darker blue, ensuring that no one would miss the search bar as it is a crucial feature that will allow users to navigate.

The search bar can be identified regardless of its colour, and the placeholder text to tries to point this out further.

The search bar is a different width between medium to large based on the screen size. It also drops to a second line if this is more appropriate, rules are in the custom.css file.

*Web Content Accessibility Score: AAA*

**Header navigation drop down active (Medium to large screens):**

The dropdown active button is styled for two reasons, to give the users feedback when they click the drop down menu and to know which active drop down is selected. I opted for a click and keep open design instead of a hover menu as I find hover menus frustrating, because if your mouse is to leave the boundaries of the menu it disappears. Which is why you have to click the menu to activate it and click the menu again to deactivate it.

*Web Content Accessibility Score: AAA*

**Header navigation hover (Medium to large screens):**

When hovering over a menu item a very light blue appears, this is to provide the user feedback that these are indeed links that can be clicked.

The same colour combination is used for the small and extra small menu.

*Web Content Accessibility Score:* *AAA*

**Header navigation drop down hover (Medium to large screens):**

When hovering over the drop down options, there reverse then happens where the background colour changes to a light blue to inform the user that this is a link, and to also ensure they know which one they are hovering over.

The same colour combination is used for small to extra small devices.

*Web Content Accessibility Score: AAA*

**Header navigation menu background (Small to Extra small screens):**

The header navigation menu background is different on mobiles, as it was unsightly and difficult to read with an entire grey background. So instead I went for a simpler style of white background with a dark grey text. I opted not to go for pure black as this can be harsh on the eyes.

*Web Content Accessibility Score: AAA*

**Header navigation background colour (Small to Extra small screens):**

Although the background changes the area displaying the logo and hamburger menu remains the same colour this is to provide a consistent design scheme for users that use both the big screen and small screen menus.

*Web Content Accessibility Score: AAA*

**Header navigation search bar (Small to Extra small screens):**

The search bar for small screens is located across the entirety of the bottom of the mobile menu. There is a clear outline of the search bar when it is clicked, and there is place holder text available to alert people to search. The same colour scheme is used as the larger screen version of the website for consistency.

**Footer navigation**

The footer navigation colour scheme again passes all of the colour contrast tests, making it highly accessible.

Aesthetically I included some CSS which provides feedback to the user when they hover over a link, this will alert them that it is a link and that they can click on it. This is the same hover colour as the header navigation for consistency.

There are icons beside the contact information, it’s important that these are there as the coloured grey circles could be missed by someone with a visual difficulty, however these small grey circles are just stylistic and unimportant, the important small icons contrast well with the dark grey background.

Finally, in the about section I included some stylised logos for social media, that use CSS hover effects, this allows the users to see that they can be clicked while making the footer menu more engaging.

*Web Content Accessibility Score: AAA*

**Logo**

With the headers and footers created and stylised I then moved onto the logo before I proceeded with anything else because every page would need a logo.

I wanted to keep the logo simple and modern to work nicely with the Montserrat font, in my opinion including full images in the logo doesn’t make it clustered. Using other information websites such as bodybuilding.com, New York Times, Quora for inspiration. I decided to go with a simple recognisable logo. Which I sketched out on pen and paper.

I then created the sketch in gimp. This took me a few iterations to get something I liked.

For the colour of the logo I wanted to avoid red and greens as I knew they were problem colours for this reason I went with a bright blue to contrast with the lack of brightness in the dark grey background.

I decided that I would have a different logo display depending on what size of screen you where accessing the website. This is because space is at a premium on mobile devices, and including the text “Master Muay Thai” took up too much of the mobile menu space and was unsightly. However, on larger screens I could afford to get away with it, and did as it would reinforce the application name and brand into the user’s mind.

With the logo I wanted some form of feedback for the user to show that it could be clicked to take them back to the home page. For this reason, I opted to go for the change colour approach on hover. While ensuring the colours where appropriate for accessibility purposes.

//NEED TO CHANGE LOGO COLOUR.

*Original logo -Web Content Accessibility Score: AAA  
Hover Logo -Web Content Accessibility Score: AAA*

**Font choices**

With the headers, footers and logo created I could now begin to take my wireframes and transfer them to HTML. To do this I needed to ensure I was using accessible and aesthetic fonts.

**H1, H2, H3, H4 Titles:**

For all titles on the website I used Montserrat to provide consistency with the navigation menu and button text.

I decided that all h1, h2, h3 titles would be uppercase. This is because using this consistently allows readers to quickly scan pages and find what they are looking for, as users reading from a screen will just be scanning text the majority of the time. I find this also looks aesthetically pleasing and provides a clear divide between the sections. It helps the user distinguish and identify the titles.

The colour of titles is #333333 on an off white background. I find this is softer on the eyes, this is also good for dyslexics who can struggle with a true black on a bright white background.

From my initial research of websites, I liked I found that popular information websites such as the New York Times and Quora also use this font colour combination.

*Web Content Accessibility Score: AAA*

**Paragraph text:**

For the paragraph text I decided to go with Verdanna as it is in the sans serif family, sans serif texts have been found to increase readability for Dyslexic. Verdanna was specifically designed for on screen legibility through its letter shaping and hinting.

For the font size I went with 14, but as previously stated Bootstrap is responsive so if it is too small users can zoom in or out depending on personal preference.

For the font colour I again choose, to go with the #333 on an off white background, although lower scores such as #000 or #222 score higher on the colour tests, I find them to sharp. As stated previously, Dyslexic readers also struggle with it which Is why I went with the off grey.

*Web Content Accessibility Score: AAA*

**Linked text:**

I choose to stick with blue link colours because this is because it is the standard colour used in the web to symbolise a link and it is the one that users will be used to. The majority of people will associate blue with links, so they will have confidence in clicking it from their past experience on the web.

Throughout the website there are also a variety of titles in blue the reason they are blue is to be consistent with the paragraphs and to clearly show the users that it is a link.

However, Bootstrap’s standard blue colour fails the colour test and is difficult to distinguish on a white background for this reason I used a slightly darker blue.

*Web Content Accessibility Score: AAA*

**Buttons**

With buttons I ensured that every button also had an appropriate text or logo and in no instance did I use colour alone to convey meaning as this could cause confusion amongst users who experience colour deficiencies.

Keeping the idea of contrast in mind I wanted to create buttons that would stand out and call the users to action. There are a variety of buttons throughout the website.

**Music player buttons:**

The music buttons are being displayed on a coloured background. In order to ensure they got an AAA rating, I used an off white button with dark grey text. When hovered over it changes to a dark blue with white text.

I think it works nicely to draw the readers eyes to the button and call them to action.

*Original Music Button - Web Content Accessibility Score: AAA  
Hovered Music Button - Web Content Accessibility Score: AAA*

**View More Buttons:**

All the view more buttons on the website are displayed on a white background, for this reason the blue button contrasts nicely, and is visible by all. When a user hovers over the button darkens, the darken colour still contrasts nicely with the white text. While also showing the user that they can indeed click the button.

The button colours are consistent with the search bar colours, and the highlighted colour is a familiar colour from the websites colour palette.

*Original View More Button - Web Content Accessibility Score: AAA  
Hovered View More Button - Web Content Accessibility Score: AAA*

**JavaScript + CSS Scoring Application “scoring.html”**

The interactive JavaScript page “scoring.html” is the most interesting page stylistically.

**Sound button:**

The sound button is black to provide the highest level of contrast, I wanted to make sure this button was visible for all as music can be obtrusive so the ability to turn it off was very important.

Although I don’t rely on sound as this would neglect deaf uses, it is just extra functionality and to add an interesting immersive feature.

*Sound on Button - Web Content Accessibility Score: AAA  
Sound off Button - Web Content Accessibility Score: AAA*

**Begin Button:**

The begin button is the same style as a view more button, this is to ensure it is recognised as a button.

*Begin Button - Web Content Accessibility Score: AAA  
Begin Button Hovered - Web Content Accessibility Score: AAA*

**Animated fighter:**

Using four different gifs that loop in a random order after the first loop and CSS key frames I created the illusion of a fighter performing random movements. The movement of the gif draws the eyes to the begin button.

Although the shorts are red in colour I would have preferred them in blue but it was a gif created by someone else it would be redone for the finalised version. The animation and movement of the screen can be helpful for those with poor vision to bring their eyes to an area of importance.

However, the contrast colour is still high even for red on an off white background.

*Animated fighter - Web Content Accessibility Score: AA*

**Clickable fighter:**

The clickable fighter has a variety of stylistic changes. I changed the mouse cursor on hover to a small glove so that the user is aware that it is clickable and something special will happen if clicked.

The red areas clearly highlight the different body parts that are clickable, and give a clear guide between the sections so there is no ambiguity in regards to the click zone.

Feedback is given when a technique is chosen and a body part is clicked in the form of a shake, as if the fighter had been hit. When throw is click the fighter is clicked the fighter goes to a horizontal position.

The feedback box uses Italics to give it a street fighter retro game feel.

*Clickable Fighter - Web Content Accessibility Score: AA*

**Button menu**

The button menu stays consistent with the blue colour scheme of the website. Each option is clearly broken up with a dark line. Text contrasts nicely. Feedback is given when a button is hovered over to show that it can be clicked. When a button is clicked it changes to a grey to show which technique is actively selected.

*Button - Web Content Accessibility Score: AAA  
Button Hovered - Web Content Accessibility Score: AAA  
Button Active - Web Content Accessibility Score: AAA*

**Feedback section:**

If a user clicks on a fighter without clicking a technique they will be alerted that they have to select a technique first.

Feedback appears in the blue box, with a consistent colour of text to the rest of the website.

Italics are used to make the feedback stand out and give it a comic book, street fighter, retro game feel.

*Feedback section: Web Content Accessibility Score: AAA*

**Mobile responsive:**

The scoring application is also mobile responsive. The buttons appear first with select your technique clearly signposted, and the feedback appearing above the fighter to stop the user having to scroll up and down to see the feedback when they click.

**Home page design**

The majority of the pages follow a very similar stylistic design. However, the homepage has a few stylistic elements that are slightly different.

Both the music and social media sections have coloured backgrounds. Although I typically feel this doesn’t look good. Here it is used to draw the user’s attention to something they might have other-wise have missed. I wanted to have more of a music player application feel for this section, highlighting that it isn’t just another information page.

The social media section is coloured to ensure the user doesn’t miss the opportunity to connect, the coloured hover buttons are used to surprise and entice the user to click them.

The coloured backgrounds also provide a distinguishable break between the article and video sections for first time users that are scanning the website.

*Music section: Web Content Accessibility Score: AAA  
Social Media Section: Web Content Accessibility Score: AAA*

**Music page design**

When the user arrives at the music page the design stays consistent the same coloured background and buttons. I feel this is necessary as it makes it feel more like a music playing application as opposed to another page. The download buttons are also clearly displayed.

*Music section: Web Content Accessibility Score: AAA*

**Thumbnails**

There are three filler thumbnails that all comply to web content accessibility, however, as these won’t be included in the final version it is unimportant.

Thumbnails provide feedback when hovered in the form of an outline to show that the user can click them.

When choosing thumbnail images if text is included the background image should have a high contrast.

**Accessibility testing for stylistic elements.**

With my wire frames created and styled, I then tested each page using the following tools in order to adjust in case I missed something in regards to accessibility.

To do this, I uploaded the website to my own hosting so that I could make use of the chrome extensions for accessibility:

* Colour contrast analyser
* NoColor Simulator
* Image Alt text viewer

To ensure I hadn’t overlooked anything.

**My prototype and it’s features.**

Master Muay Thai contains a variety of implemented design features in the prototype version.

I wanted to cover the necessary breadth and depth in my design so it that the finalised functionality and design can be clearly visualised by the prototypes user.

My prototype has very little completed content (Articles and Videos), although the structure and organisation had to be implemented due to the use of sub categories on menu items and because it is a multi-page website. For the user to imagine the finalised website, they needed to be able to explore and reach content freely, but not necessarily have content when they get there.

For this reason, the different sub categories are correctly linked but once you reach them, you are presented with option filler thumbnails where content would appear. This allows the user to see and understand the layout, organisation and navigational flow.

All breadcrumbs are also appropriately linked to show the navigation flow, with certain completed articles having links at the bottom. This is just to simulate how a user would navigate the website, not with how they would engage with future content.

Any un-implemented features lead to the relevant, page explaining that the feature is unimplemented and showing what it will do or will look like when it was implemented.

The search bar functionality has not been implemented as this would require far more content, and databases to search through. However, all search bars included in the prototype link to an explainer page with an example of the structure of results. I included examples of an overall search, a purely article search and a video search. The search bars also contain the filters that will be included in the finalised versions, although again these filters do not work.

The music players are fully implemented this was necessary to show that multiple songs could be played at once, and different songs could be downloaded. It was easier to fully implement than to have an unsightly confusing explainer. I wanted to check that the actual animation of the music player expanding to the beats added to the website or took away from it, which was only possible through implementation.

One video on the homepage is implemented, this is to showcase the YouTube embed option and how the user is able to interact making the video full screen and the other controls, across all device screen sizes.

The mobile responsive functionality is fully implemented and is one of the websites main strengths. Because I used bootstrap it would have been illogical to not organise the prototype content in a responsive way, it was a lot more effective to show how it is mobile responsive than explain how it would be. Also I had to accurately assess the small screen experience which was only possible through having the website responsive.

The contact page does include a basic form, there is no styling in the prototype version. This is just to show the user that the website is capable of handling a contact form and the fields that will be involved. If the user submits a contact request they are redirected to an explainer page.

The home page stylistically is full of content and different media; this was necessary to actually get a feel for the website and to showcase how the different forms of media display and are responsive. Which is why I implemented both a completed desktop version and mobile version of the website. However, in the finalised version, some changes would have to be made so the latest articles automatically update, the popular videos automatically update.

The fighting scoring system is fully implemented as having the completed application showcases that the system has been thought out, in the final version text could be added to the page as well. But the short game provides a level of interactivity and is something special that would distinguish the prototype. Also I needed to get it working to ensure that the layout and functionality provided an informative enjoyable experience, while also testing if it was possible to make it responsive for mobile users.

The drop down items in the main navigation bar include content in them History.html, lifeofafighter.html etc, excluding rules.html which is more of a traditional article. This was necessary as these weren’t typical article pages and each showcase different features.

History uses a timeline feature which was easier to implement this than try to explain it and diagram it on the webpage. Although more text and images would have to be added.

I created an article page “articlelink.html” as well as three completed articles. These articles where there to show the readability of the text. And the different options available for an article showcasing the different ways to display an image and how a video could be embedded at the end.

The techniques subpages didn’t need to be implemented but I felt like it added a level of clarity to the navigation, and it allowed me to test if everything could be reached in three clicks or less.

The social media icons are included as the location was crucial, however they don’t link to any actual social media pages. Just the social media example page.

The view more buttons are located in the right places of the website, however this result does not work as it would require more content in the website with appropriate tags.

“flyingknee.html” was implemented to show the structure of a techniques page would follow and how that would actually work before the rest of the content was created as the techniques descriptions would have to be consistent.

Any content that has not been clearly implemented redirects to the appropriate page. With an explainer and an example of what it would look like.

In my opinion I have implemented enough breadth and depth for the user to get a feel of the different styles of content available, how the website is responsive and to allow them develop a mental model and gain an understanding of the navigation and organisation that will be included in the final version.

**Usability testing**

**Usability tests that I have already carried out:**

Firstly, I conducted my white box testing to ensure links linked to the correct places, links weren’t broken etc.

Secondly, I tested the local website using Chrome, Firefox, Safari, Edge and Internet explorer.

The only problem is Internet explorer. In internet explorer users must “allow blocked content” for the website to display and function properly. The search bar placeholder displays in a strange way but it is functional. Some images on the content pages do not display, however they alt tags do in these situations.

Before I could then begin testing I had to figure out what I wanted to test. I concluded that I wanted to test if the website was:

* Usable
* Accessible
* Aesthetic

The objectives that I wanted to check where:

* Are the loading page times fast enough on each page?
* Is the website accessible for those with visual deficiencies?
* Can users find the information they want quickly and easily?
* Does the website provide an enjoyable non frustrating experience?
* Does the website look good?
* Does the website make people want the prototype to become a live version?
* Does the website offer the necessary content categories?
* Does the homepage make the user want to bounce or stay?
* Are there any features missed?

Before I began testing I uploaded the website to my own web hosting so that I could send it to people via a link for testing. However, the majority of my testing was done while I was present on my laptop.

I sent the link to a few people asking for general feedback.

I then brought my laptop to Muay Thai training and before and after conducted the usability test (Outline below) talk on a few of the members. As these people are already into Muay Thai I used them as a source of qualitative information by asking them for general feedback.

I got a few of the computer science people to test who had no idea about Muay Thai to figure out if they could navigate the website, I conducted the usability test on them.

Finally, I had my flat mates perform the same test. With one of the flatmates performing it on a mobile device.

However, with more time and money there are a variety of other tests I would like to perform.

**Usability I would like to carry out with lots of time and resources:**

1. Usability test task on a large group of people

The users would be split up into three different categories, mobile users, tablet users and desktop users.

I would have the users note any disabilities or deficiencies they suffer from.

I would then get the users to attempt to perform a set of tasks in increasing difficulty in a 60-minute period. With someone recording the user’s physical reactions, time taken on each individual activity and software recording there on screen movements. Eye tracking devices would also be worn by users who weren’t blind. Snacks and refreshments would be served to ensure the users remain focused.

All users should begin on the home page. The researcher conducting the experiment should use the same script to explain the task to each user.

Identifying my main goals as keeping the bounce rate as low as possible, having users finish content pages, connecting with users on social media, time spent on website and accessibility. I would create a variety of tasks; I would then create an assumption answer for each of the tasks in order to see if my thought process in the design was correct.

The tasks would be as follows:

* Connect with the Master Muay Thai Facebook page.
* Watch a highlight video
* Access the low kick tutorial page
* Access a conditioning article.
* Download a traditional fight song
* Play the life of a fighter video
* Find Bukawaw highlight video.
* Use the website in greyscale and find the “More music button”
* Use colour blindness simulators and access the most popular video without using the search bar.
* Submit a question to master Muay Thai

For each of these tasks I would have very clear success criteria for each task so there was no ambiguity in the tests:

* User is successful when they are redirected to the “socialmedia.html” page.
* User is successful when they click on a thumbnail or a link to a highlight video.
* User is successful when they are on the “lowkick.html” page.
* User is successful when they click on any of the articles located on the “conditioning.html” page.
* User is successful when one of the four music songs is downloaded into their browser.
* User is successful when the life of a fighter video located on “lifeofafighter.html” is played.
* User is successful when they play the “Bukawaw” highlight video either on the homepage or in the highlight section”.
* User is successful when they click the more music button on the homepage when “greyscale” is enabled.
* User is successful when the click “submit” on the contact page form.

I would then have a team note the times a user experienced frustration and conduct a short interview with the users after to let them vent any frustration or provide any recommendations for the website.

From the monitor footage I would compare the different methods and create a heat map to ensure my assumptions about the logical flow of completing tasks is correct.

1. Have the same users conduct the same test in one months’ time

I would then carry about the exact same test in one months’ time on the same users. The test conditions would be as identical to the first conditions as possible. Each user would use the same device they did before. To assess how the results have changed.

1. What Users do

I would use this online resource to get much more data. This will cater to a broader group and will get me much more analytic data of users using the website outside of a test environment.

1. Launch an alpha version

With google analytics enabled on the website I would launch a live alpha version without any tasks and see how the invited users interact with the website. I would add more content before doing this though to see if the users navigate through correctly and then engage with the content.

1. Usability hub

I would design a variety of tests on usability hub from very basic to complex. To highlight mistakes in the current design.

1. Hallway testing

I would ask strangers to use the website of varying abilities and people with no Muay Thai knowledge what so ever to see if the navigation alone can help them reach their goal. I did this already but I would like to perform it on a much larger scale.

1. Expert opinions

Finally, I would get an expert web developer, designer, Muay Thai fighter and coach to heavily critique the website. As these people will be specialists in every aspect of the website and know much more about it than I do.

Resources used:

**JavaScript**

* Bootstrap: http://getbootstrap.com/javascript/
* JQuery: <https://jquery.com/>
* MusicPlayer JavaScript from: <https://github.com/DevTips/Animated-Music-Player>
* Respond: http://getbootstrap.com/
* Npm: https://www.npmjs.com/

**CSS Files**

* Original Music player CSS & SASS from: <https://github.com/DevTips/Animated-Music-Player>
* Timeline CSS: <http://bootsnipp.com/snippets/featured/timeline-21-with-images-and-responsive>
* Original Search bar CSS: http://bootsnipp.com/snippets/featured/advanced-dropdown-search
* Bootstrap CSS: http://getbootstrap.com/css/

**Projects code snippets:**

<http://demo.tutorialzine.com/2015/01/freebie-5-responsive-footer-templates/footer-distributed-with-address-and-phones.html> - Footer code.

<http://bootsnipp.com/snippets/featured/timeline-21-with-images-and-responsive> - History timeline

<https://github.com/DevTips/Animated-Music-Player> - Animated music player

**Images**

<https://upload.wikimedia.org/wikipedia/commons/thumb/5/54/Kick_checking_diagram.svg/2000px-Kick_checking_diagram.svg.png> - Low kick image .

<https://www.eatingthaifood.com/wp-content/uploads/2014/01/thai-chicken-basil-recipe.jpg> - Eating Thai food image.

<https://s-media-cache-ak0.pinimg.com/564x/79/22/33/79223303ebf1d91faaa526edaa482827.jpg-> Bukawaw Image.

<http://static.wixstatic.com/media/c3042e_e05978b670304436a7a8f2fbcaf8430b.jpg_srz_514_271_85_22_0.50_1.20_0.00_jpg_srz> - Flying Knee Image.

<http://www.muay-thai-guy.com/wp-content/uploads/combat-conditioning.jpg> - Strength training image

<http://www.thesalmons.org/lynn/thai/suk4b.jpg> - Thai building Image

<http://www.weloverta.org/eng/wp-content/uploads/2011/05/ayuttaya.png> - War image.

<http://www.chiangmaivisarun.com/wp-content/uploads/2015/05/b_the-sukhothai-historical-park1.jpg> - SukoThai Image

<http://orig13.deviantart.net/5458/f/2013/034/2/4/muay_thai_iii_by_ellinorbergman-d5to4hv.jpg> - Muay Thai History Image

<http://www.muayfarang.com/en/muay-thai-music-sarama/> - Muay Thai Music

<https://sports-images.vice.com/images/2016/03/28/get-a-first-look-steven-counts-book-on-the-culture-of-muay-thai-body-image-1459189334.jpg> - Muay Thai Culture Image

<http://www.tigermuaythai.com/2-new-fitness-classes-combat-conditioning-olympic-lifting-now-available-at-tiger-muay-thai> - Olympic weightlifting image

**GIF Images**

<http://soldatov81.deviantart.com/>

**Videos**

All videos are embedded via YouTube, so the links can be found on the videos themselves.

**Music**

<https://www.youtube.com/watch?v=ZolSmgVJ71Y> – Muay Thai Music. Track One

<https://www.youtube.com/watch?v=ErhG5evFxJ8> – Muay Thai Music Homepage

<https://www.youtube.com/watch?v=Mj4q5LYA8NI-> Muay Thai Music Track Two

<https://www.youtube.com/watch?v=P7MLo4lGciI-> Muay Thai Music Track Three

**Research and Information**

<http://strikingcorner.com/history/> - Information for the history page.

<https://www.kombatgroup.com/whats-new/blog/43-latest-camp-news/489-history-of-muay-thai> - History of Muay Thai Information

**Accessibility Research**

<https://chrome.google.com/webstore/detail/color-contrast-analyzer/dagdlcijhfbmgkjokkjicnnfimlebcll> - Colour contrast analyser.

<https://chrome.google.com/webstore/detail/image-alt-text-viewer/hinbolcnfifkhlcehoakdledkfjiaeeg> - Image alt text viewer