**COM1008: Web and Internet Technology**

**Planning and Design**

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1. **General Ethos**

Having loved the appearance of Frans Halls Museum website [1], I intend on making it look bright, fun and cheerful, to give the visitor a better understanding of me and what I do in my degree, as well as demonstrate my Canvas and JavaScript skills.

Possible colour combinations include:

Chart, funnel chart

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Figure - Colour Scheme 1

A picture containing text, businesscard, envelope

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Figure - Colour Scheme 2

Chart, funnel chart

Description automatically generated

Figure - Colour Scheme 3

1. **Site Map**

Chart

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Figure - Site Map

The quiz page will be accessible through the “My Degree” (see Fig.4) page, as it only consists of 3 questions and is a small interactive part of the website. Therefore, having it after a Sheffield Uni relevant page makes the most sense.

The footer will contain links to the quiz, contact form and the accessibility page, to allow the users to visit the pages regardless of where they are on the website, in case they need an immediate access.

1. **Accessibility**

The website will be created with the highest considerations regarding accessibility [2] and will be:

Perceivable

* Every image will include an alt text to give information about the image to people that are using a screen reader.
* There will be fewer images on the mobile version to slightly reducing the content [3].

Operable

* The website will be keyboard accessible for people with limited fine motor control.

Understandable

* The font-size will be resizable up to 200% without assistive technology, without loss of content or functionality.
* Good colour contrast and readable font-size.
* Following a linear and logical layout for clear understanding.

Use of rem for font-size and spacing

When researching whether to use px or rem for the website, it became apparent that there is a split opinion. The biggest argument for using rem is that it allows visually impaired users to easily scale up the font, whilst still preserving the layout of the website. Some developers argue it is better to only use px, as the websites already have a built-in function that allows the user to zoom in and not many people change their font-size [4]. However, 3.08% of users change their font-size [5]. Therefore, it is crucial that they are accommodated accordingly. Fig. 5 shows the advantages of using rem to improve the experience for visually impaired users.

Text

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Figure - Comparison of using rem and px for font size and spacing. Adapted from [6]

1. **Legal Issues**

Any content that is used in this website that is not owned by the creator will be referenced and credits will be given to the owner. [7]

The images used will either be my own or taken from free photo sites that do not require a special license.

The accessibility requirements will also be followed.

1. **Design Mock-ups**

**Graphical user interface, text

Description automatically generatedText

Description automatically generated**

Figure - Desktop version of the website

The design of the website will be colourful (see Fig.6), with text split into paragraphs of different colours. When the user hovers over the paragraph in the desktop version, the paragraphs will slightly enlarge. It will focus the reader on the text and will make the website more fun and interactive.

The main content of the website will be in a wrapper, to centralise it and make it easier to read. I find that on big screens, if the website’s width is 100% it can be challenging to follow the text.

The contact form be quite simple (see Fig.7), will provide my contact details and will let the reader send an email to me.

Graphical user interface

Description automatically generated

Figure - Contact form design

**Graphical user interface, text, application, chat or text message

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Figure - Mobile version of the website

The mobile version of the website (see Fig.8) will be very similar; however, it will exclude the enlarging paragraphs to not complicate the users experience on a small screen.

The breakpoint for the mobile version will happen at 900px [8], as that is the size of the tablet screen in landscape. Even though 15.21% users use mobile devices with 360px wide screens (see Fig.9), the breakpoint at 900px (tablet screen in landscape) is due to the content of the page. As there is quite a lot of text, it would make it easier for the user to read it when it is across the whole screen. Furthermore, there is no need for space on either side of the wrapper, as the screen is not wide enough to accommodate it without compromising on readability [9].

Timeline

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Figure - Most commonly used devices in 2016 across the world [10]

1. **Menu System**

Given the personal nature of the website, it seems appropriate to use the “Do Nothing Approach” for the navigation bar due to its simple style [11]. It is also really easy to use on touch devices, as there is a lot of padding on each link.

The navigation bar will be horizontal, as it gives an aesthetically pleasing split in the page, providing space for logos. Furthermore, the navigation bar will be stuck to the top of the page to allow for easier access when the user is scrolling down [12]. However, it won’t be sticky on mobile devices to not take up space on the small screen.

1. **Canvas and JavaScript Demo**

The canvas page will have two sizes which will change depending on the device [13]. I will do so by setting its’ width and height in CSS. There will be 6 buttons (see Fig. 10): 3 for the type of graphs that will be placed above the canvas and 3 – for the colours – will be placed below. That would make it easier to scale them down for the mobile version. The buttons will be handled using eventListeners using preventDefault()[14][15], to be able to handle both touch and click events. The answers for the quiz will also be revealed using JavaScript by alerting the user whether their answer is correct.

Graphical user interface, application

Description automatically generated

Figure – canvas example

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