Coursework Report

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1   Introduction

In this assignment I was given the task to create a web-page on Ciphers using HTML, CSS and JavaScript. The challenge was to choose 2 ciphers (of my choice) and get them to encrypt and decrypt text using the cipher codes. I achieved this by implementing JavaScript into my web-page. As well as working on this, I had to have an index.html page which is my homepage and also a design.html page which is where I implemented my design using CSS. For my assignment I chose the Caesar Cipher and also the Vigenere Cipher because they attracted my attention the most when doing my research on Ciphers and I believed that they would be enjoyable to work on from the beginning to seeing the end product. I planned to design my website in a very modern fashion, keeping it pretty simple and easy to locate around using images, colors and readable fonts so every viewer can understand and navigate around the pages.
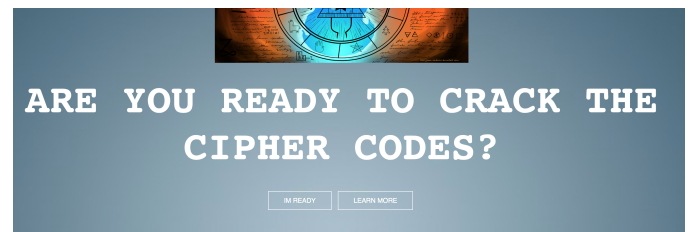
2   Software Design

When going into my Software Design I thought it would be easier and more beneficial if I planned out my website before creating it, so I researched several sites on how they looked which gave me a better understanding on how I should design mine. I listed my ideas in a notepad, giving myself a rough overall image of what I wanted my website to look like. I was going for a simple and modern look with a large title in the middle of the page, surrounded by images and links to locate around the website.

When coding my CSS I used a separate style sheet linked from my HTML file. I found my code was more organized like this and I could locate around my my style sheet easily using the classes from my HTML file. This way I knew exactly where everything was so I could add changes easily, making the tasks very efficient. Inside of my exercise files, I implemented the JavaScript and CSS within a ¡script¿ and ¡style¿ tag as I found it easier to locate around the code because these were more complicated pages.
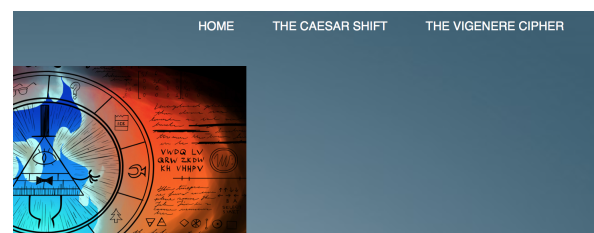
3   Implementation

After finishing up on my Software Design I started to implement my ideas into the text editor and began my HTML and CSS. I used the same background image throughout every page on my website as I believe each background color should be the same on such a simple website. My background

color is a light faded blue as images and text are easily readable and also look professional. I chose this background as I was looking to have the main title aligned in the middle of the page where the blue is faded in a lighter color, meaning the title stands out.

As you can see in the image above, the lighter fade is bringing out the image and the text giving it a professional effect. At the top of the page I used links for the users to locate around the website using the display:inline-block; tag to separate each link evenly. This way the links at the top of the page are easily seen so people can locate their way around the website and it also looks good as a header at the top of the page. I aligned the header in the top right of the page so the links to other pages are not dead center. I believe this gives the page more freedom and feels like there is more space for the viewer the locate around. After creating the heading, i found that the users did not know that you could click on the links because it was just plain text, so I used the :hover tag and added a white border around the links so people knew you they were clickable so the users can navigate around the pages on the site.

Underneath the main title of my pages I added buttons to give the user the option to try out the ciphers, or if they are not ready I gave them the option to learn more about the ciphers. I gave these buttons a fixed white border with a hover effect of an orange background. This gives the user the information that you are able to click on the button which will take them to another page on the site. I believe this is a very good idea as it is very simple for the user so they find the website easy to use. The size of the buttons are easily visible and aligned in the center of the page.

I used the same layout with the title in the middle of the pages, the header towards the top right and the buttons underneath the title for every page. This way there is no sudden change when entering a new page, the user will be used to

the website and will know where to locate each element on the different pages. I believe this is important as you do not want the user getting lost or finding the webpage difficult to navigate around.

4   Critical Evaluation

I am very pleased with my website, however I do believe there are things that I implemented into my website that I can improve for next time. I was very happy with the layout of my code, however I would of liked to put more time in to add the CSS in my exercise files into the style sheets. Because I spent a while on my exercises, I added script and style tags to code my JavaScript and CSS, whereas I believe professionals advise the best way is the implement them into separate files, so the HTML, CSS and JavaScript are all in different files and easily accessible. If I was to give myself some constructive criticism I would of put all of my CSS in the same style-sheets instead of using some in the HTML document and some in the style.css.

Another improvement I believe I could of made on my implementation is perhaps adding more content about the ciphers. On my website I only had the exercises and that name of ciphers, whereas I believe it would of been beneficial to the users if they had a bit of background information about the ciphers before going into the exercises. I did give them the option of a link to 'Learn More' however this information was external from the site.

5   Personal Evaluation

Overall, this assignment has been the most enjoyed yet in my opinion. As a Web Design and Development student this is the first module I have done HTML, CSS and JavaScript and I have learned a lot from it. I faced several challenges this assignment as I am fairly new to JavaScript, one of which being building a proper webpage from scratch. I have never done this before and being able to experience doing it in this assignment I have had the challenge of putting a webpage together that I am proud of and looks good. I have had to practice doing multiple web-pages and experimenting what looks good, resulting in my final website. I have been able to overcome these challenges by putting in work in my own time to really get to grips with what I have learned in the modules. I am very confident I have produced a good website, providing a good service for this assignment and I am confident I have gained a lot of skills already from this module.

References

Learn Cryptography - https://learncryptography.com

The Guardian - https://www.theguardian.com/childrens-books-site/2015/sep/10/top-10-codes-keys-and-ciphers