Thomson_callan_set008101_coursework1

The aim of this coursework is to create a website based on a set of chosen, classical ciphers using html, CSS, and JavaScript. The website must consist of an index page (where users are able to navigate to other pages of the site), a design document which will demonstrate all the typographical/presentational elements within the site. And a page for each of the chosen ciphers where users can encrypt and decrypt desired messages.

For my site I have chosen a simple interface to allow for easy navigation between each of the web pages, these web pages include an index page, a design document page, a cipher page, which features a list with links to the desired cipher.

I decided to implement 3 ciphers for my site and these are as follows:

The Rot-13 cipher – this cipher is a simple substitution cipher that replaces the enciphered letter with the 13th letter following it, example:

A -> N

B -> O

C -> P

D -> Q

E -> R

The Atbash Cipher – originally used to encode the Hebrew alphabet, by taking the alphabet and mapping it in reverse, example:

A -> Z

B->Y

C ->X

D -> W

E -> V

Baconian cipher – the more advance than the 3 the baconian cipher uses binary encoding so each letter is replaced by a group of 5 letters “A” or “B”

A -> aaaaa

B -> aaaab

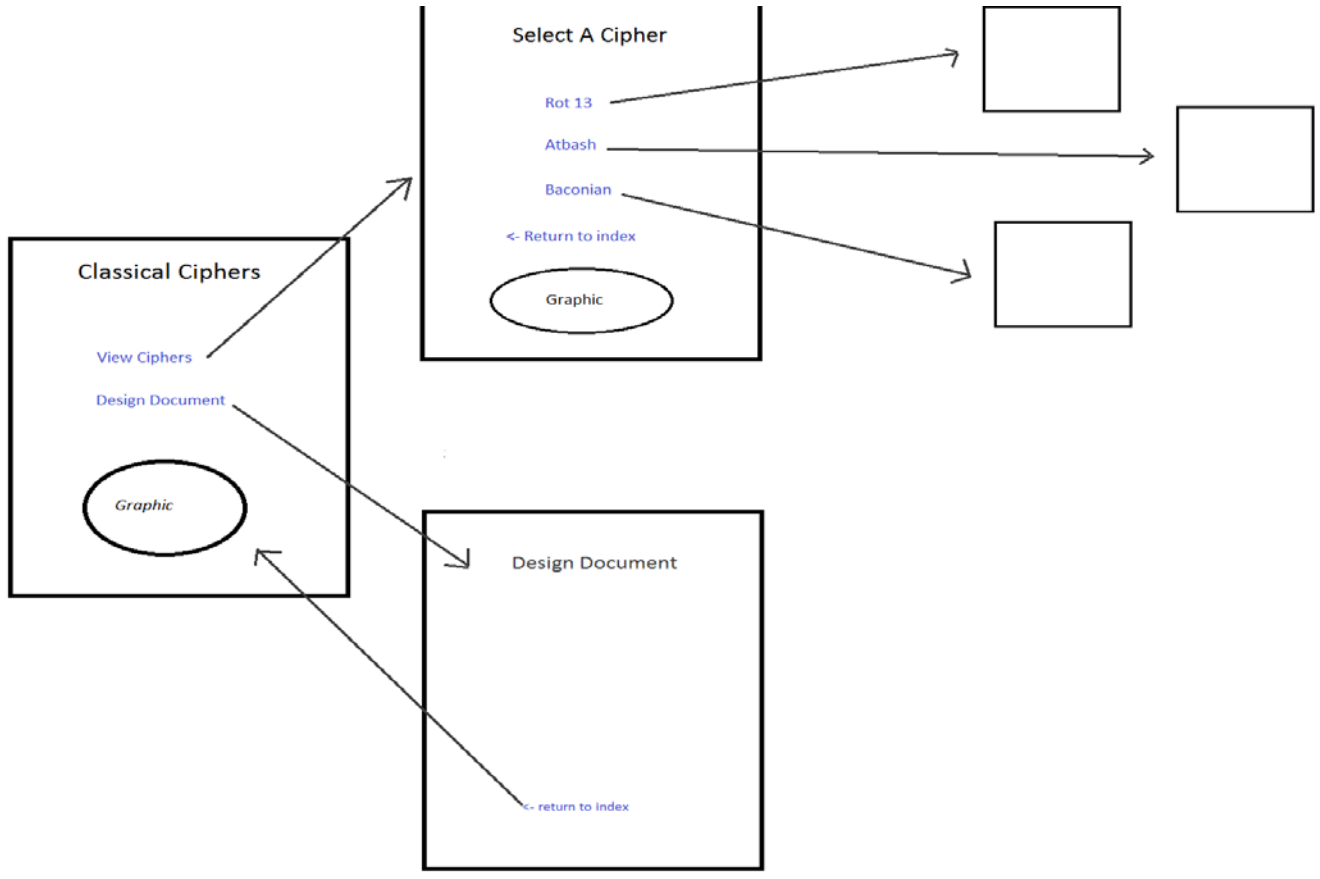
C ->aaaba

D -> aabaa

E -> abaaa

F -> aabab

The main idea for the design of my website was simplicity, this is implemented by the use of easy to navigate interfaces that allows the user to always have access to the main index page from all other pages this is done by the use of the return to index link which will take the user back to the main index page, as basic design of my site is pictured below.



As you can see from above the site is very simplistic and features easy to use navigation, I also decided to use a separate page for the ciphers (as opposed to having them all shown in the index

page), and to ensure the index page wasn't to cluttered which could potentially cause confusion and difficulty in navigation. Each page also features a graphic to help improve the aesthetics of the overall website. As you can see from above the index page allows users to access the design document and the select a cipher page, from here users can easily access each individual cipher where they are given a brief back ground of the specified classical cipher along with the ability to encode and decode messages of the users choice. From each of the 3 cipher pages users can also go back to the select a cipher page from here again improving navigation. All pages feature the same design in terms of colours, font size, graphic etc., I chose to design the site this way in order to make it look more professional to users as oppose to having each page different colours. Each of the above pages are named as follows

Index.html – the main homepage of the site, where users can access the ciphers and design document

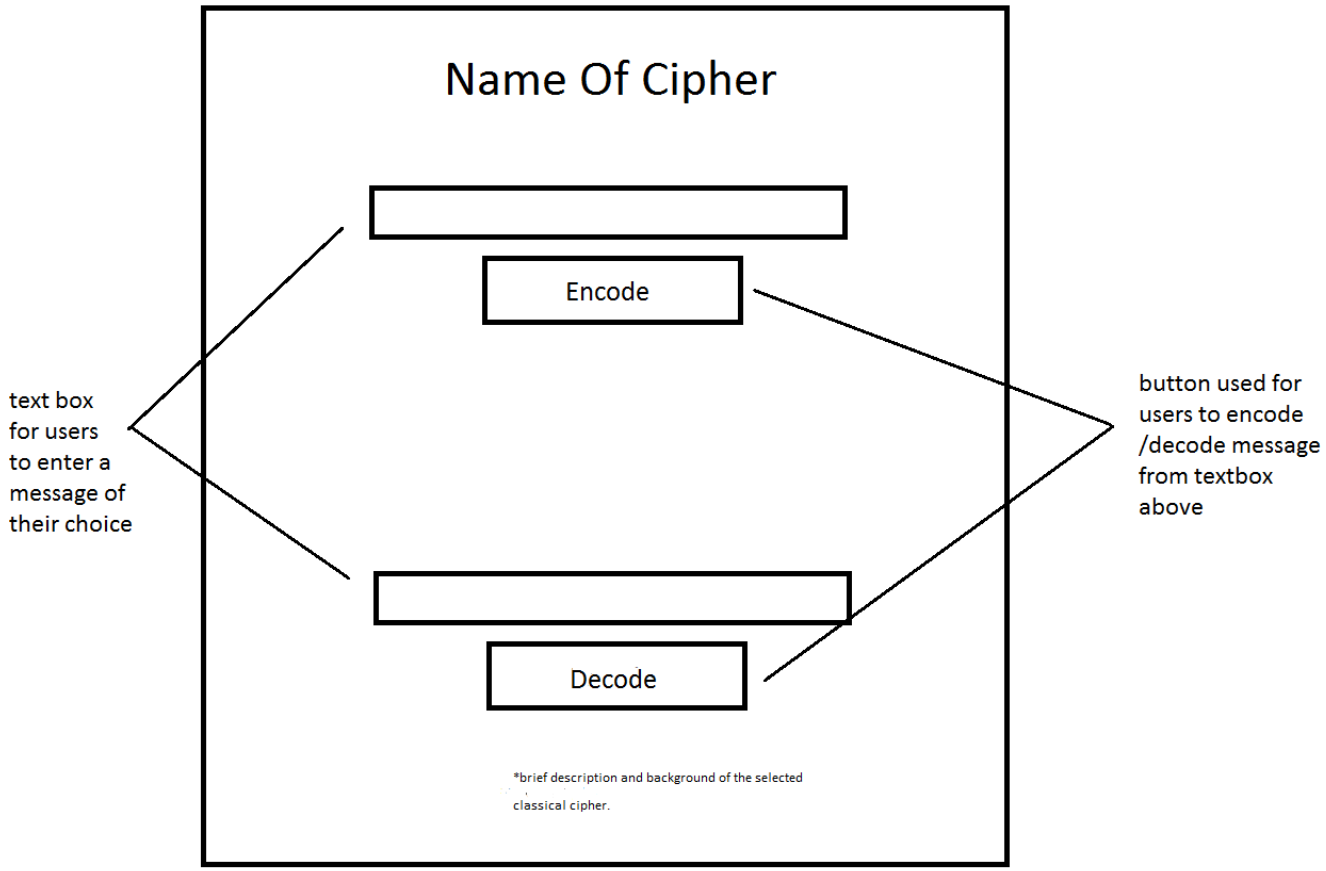
Design.html – here the users can view the design document

Cipher.html – here users can select a cipher they wish to view

Rot13.html – from here users can access the Rot13 cipher

Atbash.html – from here the users can access the Atbash cipher

Baconian.html – here the users can access the Baconian cipher



This is the design I have decided upon for each individual cipher page accessed from the select a cipher menu. The users will type there desired message in one of the 2 text boxes above then the users are able to encrypt decrypt using the buttons below , encoded and decoded messages will be shown just below the buttons. The cipher pages will also feature a brief back ground on the selected cipher along with how it is enciphered to enable users to learn about the cipher and put their knowledge into practice by allowing them to encrypt and decrypt messages of their choice. I plan on using the same colour scheme for the cipher pages as I have for the main pages of the site

I managed to implement my site based on my design to a certain extent , all my pages where true to my design except for the separate cipher pages as I wasn't able to make the encipher and decipher buttons on the same page so I had to create separate pages to encipher and decipher the messages. Everything else I managed to implement true to design, I decided to use a brown font for the headings through with black text.

Here is a basic over view of my website implementation, as you can see I decided to use the same graphic throughout the website

In comparison to the coursework requirements I feel my website ticked most of the boxes as I managed to design and implement an index page, design document, and a page displaying the chosen ciphers, however in terms of coding within JavaScript I struggled and wasn't able to fully complete the coding for the baconian cipher due to it being the more advance out of my 3 chosen ciphers.

I think in terms of improvement I could have made the site more aesthetically pleasing as the idea of my site was to allow for a simple interface and navigation therefore I didn't do much in terms of making it pleasing to the eye. Another way in which I feel the site to be improved is to have less pages in order to make the site look more professional as it currently features to many web pages which caused a lot of confusing when coding the website and I imagine will also confuse users of the website which could ruin the idea of simplicity which is what my website is based around.

One of the things I have improved over the duration of completing this coursework is my ability to code using JavaScript, my skills beforehand where very limited as I had briefly touched java before this module so was sceptical about the coursework, however It didn't prove as difficult as I thought with help from websites, lectures and tutorials online I was able to learn a lot more than I thought I was capable of , one of the challenges I faced and was unable to overcome was coding the "baconian" cipher which required me to implement binary encoding so each letter is replaced by a group of 5 letters "A" or "B" , due to this being the most advance out of my 3 chosen ciphers I was unable to implement it to my website , however if I started the coursework earlier it would of allowed me to look more in depth and complete a lot more research on the cipher , if I had given myself more time to complete I don't think it would have been an issue as the task was definitely feasible with a bit more commitment and effort.

Another way I could have improved my website was to spend more time on making my code more readable by using indentation as anyone else who reads the code other than me may struggle as its layout is what im best suited to.

I feel overall the coursework went well however due to a misjudgement in how long the task would take to complete I failed to implement some of my design. If I started

earlier it would have ensured that the design of the website was more appealing to the eye and the code would be a lot more readable to others. Another way I could of excelled in this coursework is to have had a better design as it proved difficult to implement due to my very limited design. However I overall enjoyed designing my own website based on my preferences , and not being to restricted to the overall design of the coursework.