SCI453 Working in The Computing Industry

Report

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# Introduction:

In this assignment we have been tasked with creating a website in a group, which is targeted towards secondary school students. This website we created, has information about cyber security threats and different ways of stopping and preventing them. The website also has information about legal and ethical issues within the computing industry. For this project we had to take into consideration our target audience and use effective time management. For managing our project, we used Trello so that we could meet deadlines.

# Coding the initial website:

An important part of the group project is having a working functional website to display all the content and information, the purpose of the website is to educate secondary school students on cyber security threats and different mitigation strategies surrounding them. Also, we as a team decided to use visual code studio as we thought it would be better for collaboration and helped when making the website. This helped because if we were unsure about a certain part of code, we got the team involved to see if we could work together to solve the problem. Also, for the website we had to take into consideration the target audience we got set and work off from that, so we also made the website responsive so that it works on different devices. This is because mobile devices are more popular to younger people or secondary school students and more people nowadays have a mobile device as they are more accessible.

Also, we added some effects to the website like animations to make the website more appealing to the target audience as it is targeted towards students. This is important as we need to get them interested and want to go through the website. We have separated the website out into different sections. These sections are the home section, about section, and the threats section. We separated the website into these three sections because we thought about the target audience and took into consideration the users experience so we did this to make the website easier to navigate through and use. It also helped separate different types of content out into different sections, so it made it easier for people to consume the content of the website. If the website wasn’t sectioned out, then it would make the website confusing and harder to understand where certain content is placed.

 Another thing that was important for the website was having working CSS so that the right colours and content will get displayed on the website as well as the correct fonts font sizing and positioning of all the elements. This is very much needed as without this the website wouldn’t look professional and wouldn’t be appealing to any target audience as it would be a skeleton web page which means it wouldn’t have any designs implemented or any sort of colours or styling added.

Also, the website has some JavaScript implemented into it. We have done this because we wanted to have a sleek and nice navigation bar that also worked for mobile devices, and this was important as we wanted the usability of the website to be strong so that more people can access and use the website and for there to be an animation on the navigation bar, we had to use JavaScript. Like we said before, we thought the user's experience was important, so we decided to add animations on the website, and it made the website more aesthetically pleasing.

Lastly, we decided to make comments in the code so that we knew where everything was when adding new code this was needed because without it would’ve caused us to not know where certain things are and what certain things do and mean, and this would’ve caused problems on the website, and it would’ve taken longer to complete.

# The content of the website:

For the information and content aspect of the website, we researched several aspects of cyber security that would be appropriate for educating our target demographic. The key aspects that we researched were security mechanisms for protection, issues that surrounded privacy, the threats that may be presented to the security systems and mitigative measures that could be put in place to further protect the security systems. This information was obtained through numerous websites, namely the National Cyber Security Website which provided plenty of insight into the threats that could be posed to security systems. Upon compiling this information as a group we reviewed the content and picked out the parts which we deemed the most critical for our demographic. From there we began writing up the information into subsections to spread the information out and make it more appealing to read which also allowed us to make individual aspects visible in the case of a user looking for specific topics.

With our demographic being secondary school students, we were able to go into more depth with the information without oversimplifying the content, allowing it to be more informative and useful. This was achieved through working through the compiled information and choosing the specific information that was appropriate and informative. From here we began writing the information out in an informative manner while maintaining the content and not compromising any key notes that were necessary. The largest focus for this was protecting against and then mitigating any issues that would threaten security systems. By ensuring that our content covered what the threats were and how to identify them before they occur, we were able to meet the goal of our brief. Additionally we ensured that all threats that were mentioned had explanations of mitigation alongside naming an example which would allow our demographic to do more independent research if they wanted to.

This aspect of the project had a large impact on the website as it filled out the core of what we were aiming to achieve while also maintaining fluidity between the other aspects within the project that we worked on such as the design of the website. This further helped us overall achieve the brief of making our project as appealing as possible to our target demographic. In doing so we prevented misleading the demographic with a design oriented towards them and with information that would be too advanced or interesting for them.

The key way that we managed to maintain fluidity between each individual aspect of the project was through the use of communication within our team. This was primarily achieved through the use of messaging applications such as Microsoft teams and discord as well as using google docs to share the information that was gathered which when used in tandem with one another allowed us to review the content and ensure that the brief was being met successfully and effectively. After this the content was added into the website code which prior to the content being added had placeholder text when in the developmental stage.

# Layout and images:

The layout and images of a website can sometimes be the most important part of the website after the information itself. This is due to the fact that many people out there in the world are visual learners and this means that they need to see what Is being taught to them as this then helps stick in their head for far longer than just reading the text off a blank document filled with words. What the team decided to do for our website was that we took into consideration the audience and who the website was going to be used by and went off that.

The audience for our website is Students in secondary school and secondary school students tend to be more visual learners and have a good memory and that is why we included many images that had correlated with what we were writing about. The images we picked out weren’t ordinary pictures we had found off google images we made sure we went on a website that had copy right free images already on and that if we were to include them to our website there won’t be a hassle and we won’t have been using someone else’s work.  If we were using someone else’s work that would have been copyright infringement and we would want to avoid that to avoid any legal issues regarding breaking copyright laws. To make sure there wasn’t any problem with the website either we made sure to reference that too at the bottom of the website just in case the audience using the website wanted to see where we got it from.

Sticking with the fact that our audience was secondary school students we wanted to give the website a relaxing and calming feel to it and wanted nothing standing out like a sore thumb. We made sure to choose a light and dark colour gradient to give the website a cool contrast of colours. This would help calm down the user and help destress them when they’re learning a lot of information in a short period of time which might overwhelm them.

What really had our team working very well was all our communication skills. We all had a idea of what we needed to do and we had used a management software that had helps us divide what tasks we need to carry out and also help us communicate which each other all whilst keeping us on track with our deadline. Once one of our team members had completed a task, they would tell one of us and then we would update it on the website and then the other would check for any bugs on the website by validating it and that’s how we kept our website bug free and smooth. The fact that we all had assigned roles but still ventured off into other roles helped very much so if the person researching needed help, we were all there for him and helped wherever and whenever we could and this meant we got our work done very quickly and the level of stress was quite low.

# Testing and validating:

One major part of any website is making sure that the website functions as intended, this is why we focused time on getting rid of any bugs in our website. The team decided to do this to make the user experience as it can be an issue with other websites with small teams.

Originally to test the website the team made sure that all the images loaded correctly otherwise it could make for a poor user experience and less people would be likely to use the website again or recommend it to a friend, therefore user experience can help dictate how successful the website can be. Another thing the team focused on was the website being used on other devices as the target audience is teenagers, they may be using phones, laptops, tablets or more. The team knew this so decided to test it on all these devices to make the website as accessible as possible. This is because the more accessible a website may be the more likely someone is to use it as they know it will work with their machine no matter what that may be.

The next hurdle that the team faced in terms of testing was making sure that the website was responsive, for example making sure buttons work as intended because that is yet another thing that can improve the user experience. If there were any issues it was important to find them quickly as fixes can take time and if there are too many then the team would start to fall behind and possibly miss the deadline. The team used a project management software in order to divide task, communicate and keep on track with the timeline during the testing stages when communication is key. This is due to the fact that if an error is not mentioned and rectified quickly it can cause stress towards the end of the deadline or even not getting the issue fixed by the deadline.

The final thing the team did to test the webpage was validate the webpage. They did this because if a webpage is unvalidated it may cause errors while using the webpage or it not being able to run in the first place. Obviously if a webpage isn’t functioning properly the number of users would be much less than if it was functioning perfectly. The team used a validator to test the code and if any issues arose it would tell them what parts of the code those issues were in. The team used this information to iron out any mistakes in the code. Most commonly the issues are that a line of code hasn’t been closed off properly or any images linked are not linked properly. Validating software can pick up the smallest errors that sometimes even coding software doesn’t recognise for example spaces in file names that are linked to the webpage.

# References

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https://cdnjs.com/

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https://stackoverflow.com/

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For moving gradient

https://www.youtube.com/watch?v=f3mwKLXpOLk

Website inspiration

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