**Security**

* For the sprint this week I just researched the role of security and what that entails for me as part of the project. As part of my role in the team I will have to maintain the security of the app/website and ensure that it is as secure as possible and that any external threats or attacks to the source code are dealt with in an appropriate manner.

Graphical user interface, application, icon

Description automatically generated

When researching security, I spent time looking online at different material and articles on security and for security when it comes to protecting an app once it goes live into the online world. One of the main rules and an important one I was already aware of was to encrypt all the data on the app. Any data live on an app, or a website will be exchanged and available for others to see so it must be secure when sent across the network. Another point that stood out was the use of Authentication and Multi Factor Authentication. The use of MFA such as passwords and biometric data need to be regularly updated every 3 to 6 months to protect the user and their own personal data.

* Testing repeatedly is often overlooked but it is one of the key features when managing security. Testing repeatedly to look for new bugs or errors in the code is both important as a developer to keep the security of your product as safe as possible and get into the habit of looking to update and maintain your code whenever possible.
* Having HTTPS instead of HTTP is important as it is more secure. The use of SSL Secure Socket layer enables an extra level of encryption with any information passed between the web browser and network kept private.
* Implementing Quality Assurance and testing for the app/site if possible. I can test the security of the site but if available would look to go to a third party to carry out testing on the site. Use of a third party in some cases can be more efficient as they will tend to not have a bias about the site and what works well and what does not. An external viewer may spot something that I have missed out on or not seen as an issue.

**Requirements**

* One aspect of security I did not consider was the need to ask questions about what action to take in event of an attack. It is not always possible to prevent an attack all the time. Appropriate steps must be in place to prevent further harm after an attack has occurred breach. I must ask myself as a developer what steps to take after an attack as well as what is the best possible software to prevent an attack.
* During the early development stages of the project, user testing is an important part of testing software before deployment. Seeing the app in use live will provide a clearer picture for the user and myself as to any threats or issues with the software itself. Acceptance testing shall be carried out to get a clearer understanding about whether the needs of the user are met.

**Conclusion**

* To conclude I am aware that security is an important part of the development stage of software and tends to be overlooked until problems come up later down the line. Keeping this in mind I shall ensure rigorous testing is carried out throughout all the stages of development and upon completion of this I will review and look to keep up to date the software released. Should problems occur at any stage I will do my best to mitigate against any further attacks and seek to resolve the problems as soon as possible. Security is a role that I intend to make the website as safe as possible as our team goes through each stage of the software development life cycle.

**Links used**

[*https://www.tripwire.com/state-of-security/top-mobile-app-security-best-practices-developers*](https://www.tripwire.com/state-of-security/top-mobile-app-security-best-practices-developers)

[***https://www.lrswebsolutions.com/Blog/Posts/32/Website-Security/11-Best-Practices-for-Developing-Secure-Web-Applications/blog-post/***](https://www.lrswebsolutions.com/Blog/Posts/32/Website-Security/11-Best-Practices-for-Developing-Secure-Web-Applications/blog-post/)

[**https://www.techrepublic.com/article/best-ways-to-incorporate-security-into-the-sdlc/**](https://www.techrepublic.com/article/best-ways-to-incorporate-security-into-the-sdlc/)