In the "Learning Outcomes" section of your report you must address the following items: Enabling Knowledge Identify the knowledge and skills used in the project that you acquired in earlier courses in the program. Identify the new knowledge and skills you acquired in this course.

Knowledge gained in prior courses that have helped me with this course:

- Web Development skills
 - Knowledge of and experience with: PHP, JQuery,CSS, HTML, and related conventions
- Knowledge of Scrum and Agile practices
- User Interface Design and User Experience Designs principles

Critical Analysis Identify the aspects of the project that required critical analysis.

What is your assessment of the project management methodology you used?

Scrum, I've found not to be suitable in a situation such as this. While Agile methodologies may be commonplace in real world teams, the differences found in a university level project make it an unwise choice. Due to a lack of time, and a requirement that all students be in a team, there is little accountability or assurance of competence, leaving team members with little to no skills in the required technologies and languages. On top of this forcing management level roles such as Scrum Leader onto people with little to no experience in the role puts the burden of babysitting incompetence on other students, slowing progress and leaving work undone. Alongside that there is no level of authority available to those forced into the management roles making it difficult to function in the role correctly.

For Scrum to be a feasible option management roles need to be strictly defined and filed by teaching staff who have the training and knowledge to handle the issues faced by the team. This would allow students to focus more on creating a viable product as well as giving design and technical decisions a level of authority that would see them followed through.

What were the design options and how did you choose the one to implement?

Design decisions were made unilaterally and without thought for user experience or conventions.

How well does the developed system meet the requirements?

Barely if that. The current product is poorly implemented with little focus on correct coding conventions or efficiency. With almost all of the code base being in PHP running on each page load and security features (i.e. password hashing) being removed almost immediately after being implemented the code is slow, and barely functional. Poor code design and a lack of research or thought put into code or design have left massive flaws in the project.

Problem Solving Identify the major problems that had to be solved in the project and describe and evaluate your solutions.

Most members of the group had no knowledge of web development technologies and the ones that did were not capable of teaching them to any suitable extent. This was not overcome to any meaningful level and is reflected in quality of the code. Students having little other places to turn have had to cobble together code from online sources with disparate methodologies, and levels of completeness.

One particular member refused to learn the required languages at all and had to be forced into learning them at the cost of others time and effort.

Communication Describe the communication methods you adopted for the project including within group communication and communication between the group and the client/ supervisor. How effective were they? How could they be improved?

Communication within the group was either face to face or over Slack. Face to face communication proved very effective and was where a majority of effective communication took place. Slack was far less effective and communication over the platform was minimal, I particularly had very limited contact over slack, partially due to difficult internet access outside of university ground, partially due to forgetfulness.

Communication with the supervisor was mostly as group in face to face, this was effective but due to a change in supervisor in the second week caused minor problems.

Teamwork Describe the organisation and operation of the team. What were the roles? How did you deal with different cultural backgrounds and life circumstances and differing levels of technical expertise.

Our team role was divided into team leader, product owner, UX designer and developers. We all have less experience of PHP but we were able to manage to learn new PHP skills throughout the project. Despite of having different cultural background of each team member, we didn't have a big issue during the project. As a scrum leader, I tried to talk and discuss with other team members during the team meeting and all team members followed up all matters well without having a big issue.

Responsibility What were the relevant professional standards, ethical considerations and legal and privacy issues for the project? How were they resolved?

The responsibility that I was in charge of was a scrum leader. As a scrum leader, I have discussed any team issues with team members and tried to resolve it. I supported technical part as well including email verification and messaging system. For the documentation part, I have contributed project charter and technical solution document. Overall, scrum leader was an essential role for the team to check the team progress and resolve team issues during the project.