Learning Outcomes

**RMIT University**

**School of Computer Science and Information Technology COSC2650 Programming Project 1, Buyer/Seller matchmaking website**

**Who is the reader?** In writing the report, keep in mind that the intended audience is:

• Your supervisor and client.

• An external examiner who is not familiar with the project.

**1 Software Development Project (Agile)**

Here is an outline for the structure and content of the report. You can modify this to suit your project. Not all sections will be relevant for every project.

1. Meeting Minutes and minutes weekly planning sessions with supervisor

2. Project Charter

3. Technical Solution Design document

4. Risk Register

5. Project Schedule

6. Proposed Assessment Formula

7. Tools research document

8. Learning Outcomes

9. Test report

10. Tools Setup Guide

11. Usage Scenarios

12. User Manual-Project Closure Report

13. Peer review

14. Trello

15. Project Report

16. Contribution Form

17. Product backlog

18. User stories

**2 Learning Outcomes (Mandatory)**

**Enabling Knowledge**

Identify the knowledge and skills used in the project that you acquired in earlier courses in the program.

* COSC2135 Programming technique (Java programming)
* COSC2453 Web Programming
* ISYS2410 Software Engineering Fundamentals
* ISYS2095 Database Concepts
* ISYS3350 Software Engineering Project Management
* COSC2651 Security in Computing and IT
* COSC1301 Web Server and Web Technology

Some of the skills we developed in these units that were utilised in this project include:

Using the knowledge of SCRUM methodology developed in project management unit, using coding languages such as: PHP, HTML, CSS, Javascript, software engineering class diagrams and SQL database building, user authentication and encryption, web server configuration.

**Critical Analysis**

Identify the aspects of the project that required critical analysis. For example:

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

Throughout this project we used the Agile SCRUM methodology and utilised the Trello application to manage our sprints and backlog. At the beginning of our planning phase we discussed our project plans, what matchmaking we were doing, project requirements and the scope of our project, we then write our project charter, user stories, product/sprint backlog, WBS and our initial prototype of the website. We then start with a Trello board and allocate tasks for each week based on our product backlog, first we set up all the tools we need for implementation, research and study the necessary skills in order to meet the skill requirement for our project. Once we had an initial working prototype and knowledge to work for our project, the SCRUM methodology seemed to flow more seamlessly and the sprint backlog was beginning to burn down. Overall the methodology was effective and gave us the grounding we needed to structure the breakdown and allocation of tasks and to regularly review where we were at on a daily basis through our group chat where we conducted our daily stand up meetings.

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

For this project we used Balsamiq (https://balsamiq.com/) which allows users to design user interface mock ups and consult with the team to select a design for the webpages. As a team we discussed the options for the web design and created an initial design based on the specified requirements. After the initial draft was created we had further discussions and decided to change the design and change some of the features based on differing opinions in the group and feedback from our supervisor. We then began using the Balsamiq and changed the design by using this tool.

***How well does the developed system meet the requirements?***

The developed system meets all of the specified requirements of the budding sharemarket project specifications. We used Agile SCRUM as a methodology for project management and this allowed us to breakdown and allocate the tasks effectively to the team members who were most qualified or experienced to complete them. This effective use of resources enabled our team to ensure all aspects of the project were covered and all specification were met.

**Problem Solving**

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

Throughout the project we encountered a number of issues that we needed to solve as a team, we were all new the the MVC framework which was requirement to use for our project, during our first few meetings we spent a lot of time to discuss some technical problems of how to implement certain functions.

**Communication**

Describe the communication methods you adopted for the project including within group communication and communication between the group and the client/ supervisor.

Our communication is mainly on Wechat (Online group chat) and meeting face to face twice a week, we update our work schedule and commit our next task for the next time cycle and helping each others if someone has problems with his task, and get recommendation from our supervisor during each meeting, our main communication on group chat is to check if everyone is on the right track and they can keep up with the planning schedule, or sometimes helping team members with the problems they got, and keep commuting while doing task that require group works.

***How effective were they?***

We found the communication tools incredibly effective, especially wehcta because it allowed group members to be @ in different conversations so they would receive notification and keep track of issues, main group priorities and share useful links that were beneficial for the project about different documentation. Wechat also allowed us to exchange code snippets and screenshots for easier communication of solutions, issues or improvements.

***How did you deal with different cultural backgrounds and life circumstances and differing levels of technical expertise?***

In order to deal with differing levels of technical expertise we held discussions at the commencement of the project to determine which group members had strong technical skills, which members had strong project management skills and at what level each member felt they were able to perform different tasks such as: coding, web design and development, frontend and backend and testing. Through this we were able to allocate tasks based on people’s strengths and interests.

***What were the roles?***

The roles in the team were as follows:

**JIAJUN HE:** Development - Work along with the team in order to develop the match making website.

**Jason Le:**Team Leader, Tester, Development

**Saelon Kim**: Scrum master, Development

**Pavitra Vathsalaraj**: Development

**Responsibility**

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

In the creation of the project we were required to understand some legal and ethical requirements to create the webpage.

It was important to understand the Privacy and Confidentiality Act to be aware of how personal information and data can be collected, stored and used to create the privacy policy tab. This also informed the ethical considerations regarding what information users needed to provide in order to register. For example they need to provide their company details to ensure they are buyer/seller from a particular firm.

We also aware potential security risk of user stealing account password by bots automatically fill in Web forms as if they were individual users. Bots are used to overload opinion polls, steal passwords (dictionary attack) and, most popular, to register thousands of free email accounts to be used for sending spam. Therefore we designed to pass through a human verification process using reCAPTCHA API every time a user tries to contact a buyer/seller.