Software Project Management Plan

Mobile Dog Grooming Business

AD03_Group2

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content

Abstract

This document is a project management plan for mobile dog grooming business. This plan detailed outlined the business value, the project scope, team management, and technical process. Mobile dog grooming business, different from traditional grooming, has a high profit. This document detailed analyzes the business value including financial and non-financial benefits. Also, the scope of this project is illustrated in this plan. The owner Tom is responsible for implementing it. The outcome of the business drives not only financial benefits, but also has contribution to the industry. This project is predicted to deploy on 20th May. In order to accomplish punctually, our group implement Agile methodology to drive the target system. Our group comprise three roles for the project, including Scrum Master, Product Owner and Scrum Team. Four types of meeting are planned to hold during the project, that are Sprint Planning Meeting, Daily Stand-Up, Sprint Review Meeting, and Sprint Retrospective Meeting. For the uncertain part of the project, our group identifies the possible constraints and risks, and then analyze the impact and response of each risk. In order to offer a better understanding of the Agile approach this project used, this document present a detailed project plan, including Product Backlog, Sprint Backlog, Burndown Chart, and Kanban Board.

1. Introduction

This document is AD03_Group2's Software Project Management Plan for the *Mobile Dog Grooming Business* project, decided to be undertaken in agile software development life cycle (SDLC), that is much more flexible and efficient to plan, execute, monitor and control this project. And the intended audience for this document is all team members, and the project supervisors.

Mobile Dog Grooming Business is a project aims to build up a web-based online appointment system for users and administrator to arrange dog grooming services. It allows dog owners to create and edit accounts of themselves and their dogs with their name, address, contact number and other related information.

This system allows users to make an appointment online with it. It provides online selections of appointment time, grooming options and other description comment of services required so that business administrator is able to do the grooming at customers' homes based on these online appointments, which is so-called 'mobile', a brand-new trial in this field.

The Mobile Dog Grooming appointment system also enables customers to re-schedule appointments on their own and remind them of the appointments 24 hour prior to it.

1.1 Purpose of document

This is a formal approved document for all team members and supervisors throughout the project, approved general information for audience having a good comprehension of the project (the goals of the project, the scope covered and uncovered under the project, delivery approach, business value of the project, constraints).

Moreover, this document specifies the roles and responsibilities of each member during this project, providing a guideline for the development of project with a clear communication plan for internal and external communicate with related staff.

Additionally, this document made a general risk estimation of potential risks in the future under this project or even after the project for supervisors and developer to understand and pre-prepare for them.

Lastly, a well-arranged schedule is planned in this document for audience to control and monitor the process of this project.

1.2 Audience of document

1. Stakeholders

The key stakeholders of this project are listed in Section 2.1. This document enables stakeholders to review the details of the project, monitor it based on the schedules and milestones and advice when necessary. Stakeholders could estimate the value of this project on project information in section 2 and have a general awareness of potential risks so that provide general help in process.

2. Business analyzer /manager

One of the audience of this document are the business analyzer and the managers in this project who is responsible for manage and carry the process forward, regarding this document as the basis for them to follow up the project.

3. Software developer

Part of the audiences in this project are the software developers in building the project system. Developers are allowed to understand the approaches and principle used in achieving the project goals via this document.

1.3 Limitations of document

This is a general approved document covering key project components across the project so that some detailed technical approaches are not mentioned in it. The analysis and schedules for this project may be unscientific nor infeasible because of team's lacking of experience and communication with client. Some of the analysis and estimation approach may be not suitable enough for this project could result in inappropriate or deviant results.

1.4 Evolution of document

Version	Created by	Date Created	Location	Comments
1.0	AD03_Group2	26/04/2018	University of Melbourne	Section 1 - 3
2.0	AD03_Group2	05/05/2018	University of Melbourne	
	1. Tables of Risks management in section 3.3 have been updated according to current situation 2. New section 4.1 has been added about the artefacts in the 1st sprint			
3.0	AD03_Group2	12/05/2018	University of Melbourne	
	1. Tables of key stakeholders in section 2.1 have been modified. 2. Tables of Risks management in section 3.3 have been updated according to current situation 3. New section 4.2 has been added about the artefacts in the week10 sprint.			

Table 1: Evolution of document

2. Project Information

In this section, general project information is introduced, including key stakeholders, the scope of this project, delivery approach, business value and constraints, which enables the audiences to have a general understanding of this project and also provide an archive of all approved information.

2.1 Key stakeholders

This project is a profitable business case so that stakeholders in several aspects are involved in with

different identities, but only few of them are vital in this project. In order to make a clear comprehension of related stakeholders and their roles in this project, the key stakeholders are declared in the table below.

Project Role	Identity	Classification	Detail Information
Not Involved	Government	External	The government have the absolute rights to ban the business and stop all processes. Only obtained the legislation certification can the business proceed smoothly.
Sponsor	Tom	External	Since Tom is the primary sponsor and the business owner, he would communicate with other sponsors and **be responsible for the whole business**. he would provide most of the requirements through the support from project manager and test the result in the beta stage. He would attend all meeting in this project except daily sprint.
Business Owner	Tom	Internal	
Employee	Business Analyzer / Project Manager	Internal	The communication bridge of the requirements from the client/Tom and the development team. He/ She is **responsible for the product** and the supervisor of the whole project. They arrange the whole work flow of the project. His/ Her opinion of the product, project and business is important because he/she has an overview of them.
Employee	Developers	Internal	They would be mainly responsible for the coding of the product. Daily sprint communication with the project manager and between developers. If they have suggestions about the product, they should communicate with the project manager.

Table 2: Key stakeholders

2.2 Scope

This is project of web-based system developing with limited time and staff, in which case a well-defined feasible scope is significant for the efficient achievement of the final outcome.

2.2.1 In-scope

The functions in the scope of the product are the functions or the work is compulsively required to be finished during the project.

Web Application

1. User login function

Users are required to login with an email address so that they can receive the reminding email of appointments and the administrator are able to contact them with them, which are the user names of users as well. Correspondingly, a unique password is demand for every user to login his account after registration and is the protection of their personal information.

2. Profile modification

This system should enable each user has their own profile about personal information so that system administrator can know a little about his customers. In this case, users should be capable of adding their information including name, address, mobile number and information about their dogs and modifying them once these items are changed

3. Appointments function

Appointment functions are the main functions in this system, which allows users to book an appointment of services provided.

- Add, edit, cancel, review available appointments

Once users have requirements of mobile dog grooming services, they can simply book a new appointment with this system as well as edit booked appointment if they are not available at appointed time or they would like to change grooming dogs. Additionally, users are able to review the details of appointments when needed.

- Select a dog from personal records

Not only users but also grooming dogs can have their own profiles so that when booking an appointment, users can choose the dog need grooming from the records. This function is much efficient for users who feed few dogs and also enable groomers know much of the dogs and their preference.

- Choose service content about grooming option and price tags

There are several grooming services provided in this business, including washing, haircutting, styling and others. Users can choose the demand services for this appointment when booking so that groomer can prepare for it. Moreover, for the same service, different grooming products and groomers offer different prices and users can see the price tags for them when booking as well so that they can choose a reasonable service and price for this appointment.

- Special requirements field

This function provides users a space for special requirements in grooming, for example, users may comment the color or style they like in this field or mention the tools that might not be provided at their home like combs or towels.

- Confirmation sending

After finishing selecting the appointment information, a cost of the appointment may be estimated. If user have any trouble they can go back to previous options and have another choice, and if there is

no doubt for it then a confirmation would be sending to the administrator of this system after clicking confirmation button and this appointment is completely finished.

- Auto reminder after confirmation

With the appointment information stored in database, system would automatically remind users of next 24-hour's appointment to make sure that users are still available at that time and they would be at home with their dogs, or they can modify or cancel the appointment in advance so that other users can book an appointment at that time and groomer would not make a visit in vain.

4. Admin function

This function is for the administrator of this system (Tom) only, other users have no access to this function. Administrator is able to view all bookings and have access to the booking details by click each appointment as well. Besides, this function provides administrator with the filter on date or customers' information, in order to know more about the appointments.

Also, administrators are capable of canceling the appointment and modifying the schedule as well once the groomer are not available or for some particular reasons

Database

The database for the application mainly stores users' personal information and information about their dogs. New records need to be check for duplication of user name(email) and contact numbers.

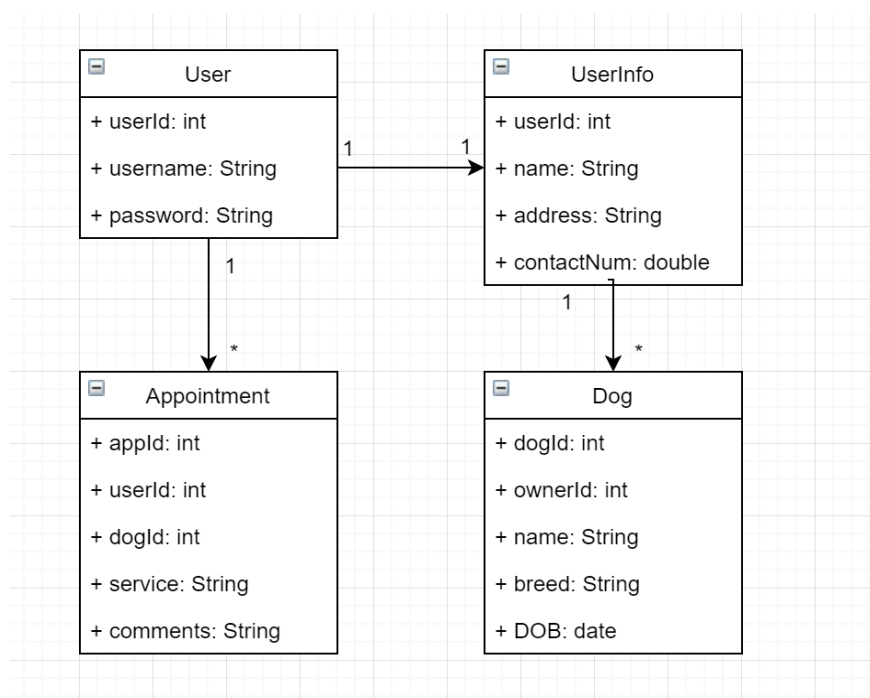The primary draft of database structure as follows:

Figure 1: Database structure

Enhancement

In this stage of development, these two functions are not included. But they are highly possible to be implemented in the next version of the product

1. Online / card payments

Online payment is commonly used as an efficient pay way in business. The negotiation and cooperation with the online/card payment company is supposed to follow after another or two rounds of refunding. This would bring financial security and convenience for both sides of the business. However, the implementation could be time-consuming and need the co-working with the bank or third pay agency, which is not yet necessary for the initial stage.

2. Geo-location & time management

For the administrator to use the application more efficiently, this function would calculate a time-saving route for the administrator. In the first stage, the geo-location information needs to be collected and evaluated for the route design function in the next stage.

2.2.2 Out-of-scope

Some functions are not included in this stage of development:

1. No feedback function: there is no field for users to make any comments of the grooming services nor give feedbacks of the degrees of satisfaction or mark the service after it.

2. No social media function for users on this platform: users are not able to communicate with each other via this system nor add friends or view profiles of others.

3. No recommendation function: users cannot make recommendations of their favorite groomers or products to other users and the system would not recommend for any product or services either.

4. No e-voucher system: the price for the service is a flat rate and no vouchers applying function or bargaining when paying.

5. No targeting advertisements to users: there will be no advertisements on the web page, and users won't receive junk mail in this stage.

6. No map function (of redirection to other websites) for administrator: The website does not support the GPS function (or direct to GPS website) to help users locate their position.

2.3   Delivery approach

In this project, we choose **Agile** as the methodology model and the scrum process to build the target product.

There are two features of this case which determine the software life cycle has to be Agile: time limit and unclear requirements.

The project is supposed to have a delivery within a month. The project team is relatively small with no more than 10 people in total. The project requires a model that the clients and the developers have

a chance of frequent communication about the results of different stage. And the intervals of each stage are supposed to be short. Agile provides an active updating model and supports rapid delivery of software.

The requirements are formed from a client with a vague idea of the final product, thus they are not clear at the beginning and surely will be continually emerge and change during the developing process. The agile model is flexible and efficient to plan, execute, monitor. The model is based on frequent inspection and adaptation on thus suitable for change and short cycle of developing. On the other way, the involvement of traditional waterfall may cause the confusion of the developing plan when new ideas, which deserve trials on the product, come out.

Concerning these aspects, we will design the developing process under an agile model and using the scrum process.

2.4   Business Value

2.4.1 Financial

The online dog grooming appointment and the door-to-door dog grooming service would no doubt have a share to the grooming market, for this reason that the business owner has a valid customer circle and experience in this area.

The business model is time-flexible in appointment management for the service provider, thus the dog groomer can arrange a reasonable working load, for himself in a day. That means there would be more customers, he can choose to work harder to earn more.

It is also space-flexible for replace the fixed shop with the customer's home, which needs no rent for shop and no extra of water and electricity. On the other hand, earnings of the service are most profits thus the price could be lower than the dog grooming shops. The tools the groomer uses might bring extra commercial profits if promoted properly to the customers.

2.4.2 Non- financial

The idea of online dog grooming appointment with a door-to-door dog grooming service is a new business model which would bring revolutionary thinking to this traditional industry. It's not only because that it is a casual and easy way for both service provider and the customers to schedule an appointment, but also it is a sign for a new life style in the digital era.

On the expectation of the customer, it is convenient for them to have the dog grooming service at home. For some cases it avoids the problem that the pets might be nervous when exposed a strange environment, thus it helps increase the quality of grooming services. This could also be considered as a chance to bond the relationship between customer and their dogs.

2.5   Constraints

1. Time & money

The actual working time of the project is approximately a month from designing from the client's idea to the actual product release. And the first-round fund is entirely from the business owner while no guarantee for the next round.

2. First customer

The idea of online appointment and door-to-door dog grooming service is still a new way comparing to the traditional dog grooming shops. How to make this new business model appealing in the promotion to the customer is the first key step for the business.

3. Legislation / local supervision

Whether a domestic dog grooming service meets the need of local legislation and supervision is unknown. If the condition does not fully meet the regulations, it would be fatal for the whole business.

4. Knowledge/ Technologies

The developers are students who might lack of developing experience. In the developing process they might meet the problem of unable to implement some functions. And they might not be familiar with the commercial developing cycle at first resulting in low efficiency. On the other hand, the developing team need a UI designer, who is not only a developer but with proper designing skill and training as well.

5. Business management

Due to the issue of short time, the business lacks of professional accountant, marketing members and sales. Though it's a staring company, it still may meet the problems of confusion when assigning these functions.

6. Region for service

Due to the issue of space, it should be carefully considered that whether this company is aiming at the local area or a chained company in the country. This influences the scale of the product when designing the database and some geographically related functions.

7. Lack of marketing analysis

Whether there are already some applications which can realize the client's idea is unknown. The marketing research and analysis are preferred to be done before the start of the project.

8. Grooming skills and reputation

Tom is after all a business student. The reputation of his grooming skill relies on his part-time job experience. Unlikely some professional animal hairdresser, Tom needs to be aware that the customer might question his professional ability.

3. Project Governance

3.1 Roles and Responsibilities

With the comprehensive consideration of the scale and resource for the dog grooming system, the team will apply a scrum team model to complete the project. As a scrum team, all team members in the organization work together with no direct leader. Therefore, there is no hierarchy in the team. The team take the ownership and drive the outcome on its self. In general, three roles are included in this model, which are Product Owner, Scrum Master, and the Scrum Team. For each role, the responsibilities they should undertake are detailed illustrated as follows.

3.1.1 Product Owner

In this project, group member Ailin Zhang is the Product Owner of the team. The responsibilities are:

1. Have an oversee vision and solid understanding of the dog grooming's market, customer, and business.

2. Deeply analyze the requirements and identify the user stories of the product.

3. Prioritize the features according to its market value.

4. Have the responsibility for the profitability of the product.

5. Ensure the product backlog items are visible, transparent and clear to all team members.

6. Determine the workload of each scrum print, as well as how many sprints it requires.

7. Select and re-prioritize the user stories that is going to delivered for each sprint.

8. Have a commitment to not adding new requirement during each sprint.

9. Adjust and prioritize features every iteration, as it needs.

10. Able to accept or reject the outcome of each scrum sprint.

11. Supervise the milestone during the project.

12. Decide the release date and the content of upload.

13. Trial and give the feedback before release the final product.

14. Actively engage with the team, as well as work closely with other stakeholders. Need to communicate with both team and other stakeholders

3.1.2 Scrum Master

In this project, the Scrum Master is Silan Li. The responsibilities of the Scrum Master are as follows.

1. Responsible for ensuring the team lives Scrum values and practices.

2. Make sure whole team work together and represent management to the project.

3. Remove the impediments to the progress, and facility the meetings.

4. Help the team being fully functional and productively dynamics.

5. Establish an environment where the team can performance at the maximum level.

6. Protect the team not only from over-commit to the workload they can bear, but also from complacency.

7. Enable a close cooperation among all roles and functions.

8. Remind the team to achieve the goals they set during each sprint.

9. Arrange meetings for different functions to communicate.

10. Shield the team from external interruptions and distractions.

3.1.3 Scrum Team

The team is comprised by a small group of cross-functional people, including traditional software engineering titles such as programmer, UI designer, tester, and architect.

In this project, all four group members are part of the Scrum Team. The responsibilities of the Scrum Team are as follows.

1. Members should be full-time, and work together in a co-located environment, having a form of camaraderie.

2. Have a clear understanding of all user stories that is going to deliver.

3. Select the User Stories from the Product Backlog at the beginning of each Scrum Sprint.

4. Have a commitment to completing the selected User Stories during each Sprint punctually.

5. Maximize the performance within a timely manner.

6. Participate in all meetings and contribute ideas and opinions.

7. Be alert to any possible risks to the project.

8. Behave in a harmonious cooperation and rationally face to the conflict.

3.2 Communication Plan

In general, meeting is the primary avenue of communication, during the project the team will proceed four types of meeting, which are Sprint Planning Meeting, Daily Stand-Up Meeting, Sprint Review Meeting, and Sprint Retrospective Meeting. For each type of meeting, the communication plan is detailed illustrate in the following section.

Email, as the secondary avenue of communication, can be used among the scrum team in order to get in touch with other team members. This ensures the team knowing the progress made by others and promotes cooperation.

3.2.1 Sprint Planning Meeting

The Sprint Planning Meeting is held at the beginning of the project. It is a one-time meeting in a form of face-to-face. The whole team including the Scrum Master, Product Owner, and Scrum Team should participate in the meeting. If necessary, other key stakeholders can also attend the meeting. In the meeting, the Product Owner describes the prioritized features to the team and assist the team decomposing the User Stories into detailed tasks and create the Sprint Backlog. The team identifies what they will accomplish in the Sprint and write down the Sprint Goal. The expected artifacts as the result of the Sprint Planning Meeting are a Sprint Goal and a Sprint Backlog.

3.2.2 Daily Stand-Up Meeting

During the project, the Daily Stand-Up is held every day before start working in a short period of time. The communication channel is meeting, and it is held in a form of standing-up face-to-face meeting.

The roles involved in this meeting are the Scrum Master, Product Owner, and the Scrum Team members. The Scrum Master takes the responsibility of holding the meeting and making sure everyone participating in the Daily Stand-Up. In the Daily Stand-Up meeting, each team member briefly describes what he has accomplished yesterday, the obstacle lies in the way, and what he is going to do today. This meeting aims to grasp the progress of the team, therefore, the Scrum Master is able to adjust the pace, if necessary, to make sure the tasks are completed on time.

3.2.3 Sprint Review Meeting

Sprint Review Meeting is held after each sprint, typically every 2-3 days. After each Scrum Sprint, the team is expected to deliver a potentially shippable product. In the meeting, the Scrum Team shows what the accomplished during the sprint and takes the form of a demo of new features. The format of the Sprint Review Meeting is intentionally informal. The PowerPoint slides are forbidden to use, and the preparation time for the meeting is strictly no more than two hours. Participants of the Sprint Review Meeting are Scrum Master, Product Owner, and the Scrum Team. If necessary, customers and developers from other projects are also welcomed to be invited to this meeting.

3.2.4 Sprint Retrospective Meeting

The Sprint Retrospective Meeting is held immediately after the Sprint Review. The entire team,

including Scrum Master, Product Owner, and Scrum Team are able to participate. The communication channel is face-to-face meeting, which is typically takes 30 minutes. In the meeting, each team member is expected to identify the specific tasks that the team should whether start doing or stop doing or continue doing. This meeting aims to periodically focus on what is and isn't working and also how the team are doing, in order to find a way to improve

Communication Objective	participants	frequency	Format
Sprint Planning Meeting	Scrum Master, Product Owner Scrum Team	Only once at the beginning of the project	face-to-face
Daily Stand-Up Meeting		Every day before working	
Sprint Review Meeting		After each sprint, typically every 2-3 days	
Sprint Retrospective Meeting		Immediately after the Sprint Review	

Table 3: Communication Plans

3.3 Risk Management

A wide range of risks have been identified for the project. And the Top 10 Risks and Risk Impact Analysis Table (Table 4) is shown below.

Each risk has corresponding trigger and for the profit of the project, there should be some one responsible for the solving of them. Base on the different roles and responsibilities in this project, the owners of risks are listed in Table 5 and the response required to be done in order to reduce the impact or prevent the occurrence of them. According to different type of risks and the complexity, some might are expected to be solved by few owners together.

Risk ID	Risk Type	Description	Probability	Impact	Justification
1	Business risk	Bank/ sponsors' leaving during the project	70%	8	The project could not run without funds
2	Project risk	The postponement in delivering the project	60%	6	Unpunctuality of the project would cause more investment and the product launch delay, which would result in customer loss and late payback
3	Business risk	Fierce peer / market competition	70%	3	Numbers of similar services in market and competition will affect market shares and profits
4	Product risk	Technical issues in developing functions	70%	3	Technical issues are common in development and unexpected
5	Product risk	System postpone or timeout when changing or booking a new appointment	50%	4	In practice, system would be accessed by multi-users at the same time, which might cause postponement in booking
6	Project risk	Poor scope and requirement	30%	6	Client lacks education background of IT and do not have a clear requirement of the project which may cause work in vain
7	Business risk	Privacy leak	20%	7	Privacy leak is a common risk for all ICT applications, which would result in the leak of customers correspondingly

Table 4: Risk Impact Analysis Table

Risk ID	Trigger	Owner	Response	Resources Required
1	Finding no profits in this project/ Occupied mature market	Product owner & Business analyzer	· Prompt communication with sponsors about the progress of project and its value · Looking for new sponsors immediately	· More communication / meeting · sponsor
2	High expectations in efficiency / Constraints in time and staff/ Too many bugs need to be fixed when testing	Business analyzer	· Follow up and supervise the progress of project · Rearrange the schedule of project flexibly · Reserve extra time of possible issue	· Qualified business analyzer (project experience) · More communication / meeting
3	Competitor has applications or systems with similar functions and already occupied part of the market	Client	· Lower services prices and increase the quality at the same time · Providing some extra services like hanging dogs and selling dog food · Focus on some particular residential area	· In-depth market survey · High qualified groomer
4	Insufficient design of functions/ Unexpected runtime errors/	Developer	· Try other algorithms to improve the functionality · Extra testing by all members · Turn to professor for help	· Qualified developers · New algorithms · professor

Table 5-1: Risk Register Table

5	Multi-users are booking appointments at the same time for same service time/ System overload	Developer/ Product owner	· Apologize for postponement and call users to reschedule appointments · Developer explore advanced algorithms to fix it	· Communication skills · Qualified developers · Advanced algorithms
6	Clients without IT education backgrounds / Clients do not have a clear awareness of their requirements	Product owner & Business analyzer	· Client refining details of the project · Business analyzer make more communication with client to ensure the scope is well-defined and is feasible	· More communication / meeting times
7	System be hacked / Client sell customers' information for benefits	Product owner & Developer	· Apologize for the mistake and fault occurred · Find the reason of privacy leak and fix it · Estimate potential causes of privacy leak	· Information security developer

Table 5-2: Risk Register Table

3.4 Project Planning

User Stories:

1. As a site member, I can log in with email and password.

2. As a site member, I can modify my profile.

3. As a site member, I can make an appointment with the groomer.

4. As a site member, I can receive auto reminder of my appointment.

5. As a site administrator, I can view all the bookings.

6. As a site administrator, I can manage all the bookings.

Product Backlog		Sprint Backlog
User Story	**Story Point**	**Task Breakdown**
Story 1	5	1. Build a database to store the users' emails and passwords
		2. Set 'register' system
		3. Add error 'register' (duplicate username/ email)
		4. Add error 'log in'
Story 2	8	1. Add entries into the users' database (name/ home address/ multiple contact phone numbers)
		2. Build a pet database (name/ breed/ birthday)
		3. Set a user interface, allow the users to access/ add/ edit/ delete their information
		4. Set the dog information mustn't be null
Story 3	10	1. Build an appointment database (time/ user/ dog/ service/ special requirements)
		2. Set an appointment interface, allow the user to make a customized appointment for a chosen pet
		3. Give the users access to review their appointment
		4. Give the users access to reschedule/ edit/ cancel the appointments they' made
Story 4	3	1. Set auto reminder system to remind users the appointments
Story 5	2	1. Give administrator the access to view all the bookings (today/ history) and all the users' information
Story 6	3	1. Give administrator the access to edit/cancel appointments

Table 6: Project planning

Tasks broken down in hours and managed

Task	Mon	Tue	Wed	Thu	Fri
1.1 Build a database to store the users' emails and passwords	2.5				
1.2 Set 'register' system	2.5				
1.3 Add error 'register' (duplicate username/ email)		2.5			
1.4 Add error 'log in'		2.5			
2.1 Add entries into the users' database (name/ home address/ multiple contact phone numbers)			4		
2.2 Build a pet database (name/ breed/ birthday)				4	

Table 7: **Week 9**'s sprint backlog

Task	Mon	Tue	Wed	Thu	Fri
2.3 Set a user interface, allow the users to access/ add/ edit/ delete their information	4				
2.4 Set the dog information mustn't be null		4			
3.1 Build an appointment database (time/ user/ dog/ service/ special requirements)			5		
3.2 Set an appointment interface, allow the user to make a customized appointment for a chosen pet				5	
3.3 Give the users access to review their appointment					5

Table 8: **Week 10**'s sprint backlog

Task	Mon	Tue	Wed	Thu	Fri
3.4 Give the users access to reschedule/ edit/ cancel the appointments they' made	5				
4.1 Set auto reminder system to remind users the appointments		6			
5.1 Give administrator the access to view all the bookings (today/ history) and all the users' information				4	
6.1 Give administrator the access to edit/cancel appointments					6

Table 9: **Week 11**'s sprint backlog

Burn down chart

This figure shows the ideal schedule of project from now on till the deadline.
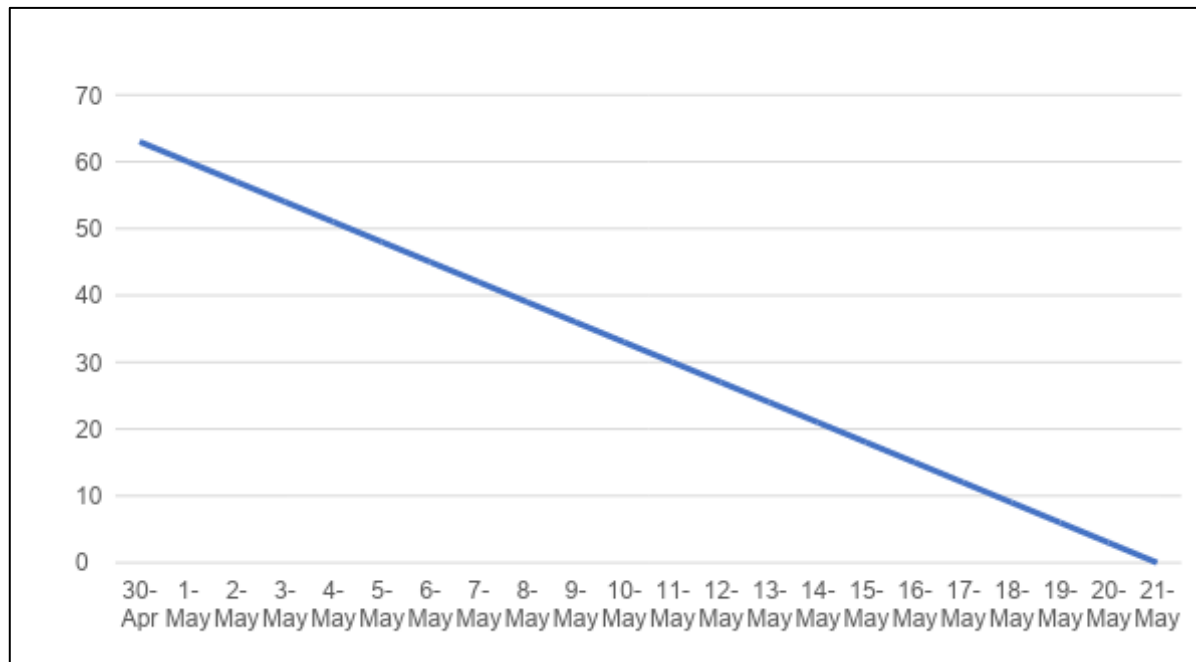

Figure 2: Burn down chart of project

Agile framework

This is the initial status of this project. All the tasks have not started yet listed in to-do list. Based on the schedule each task would be in progress and when it ready for launch it would be moved into corresponding list until it is finished till it is moved to the last list.
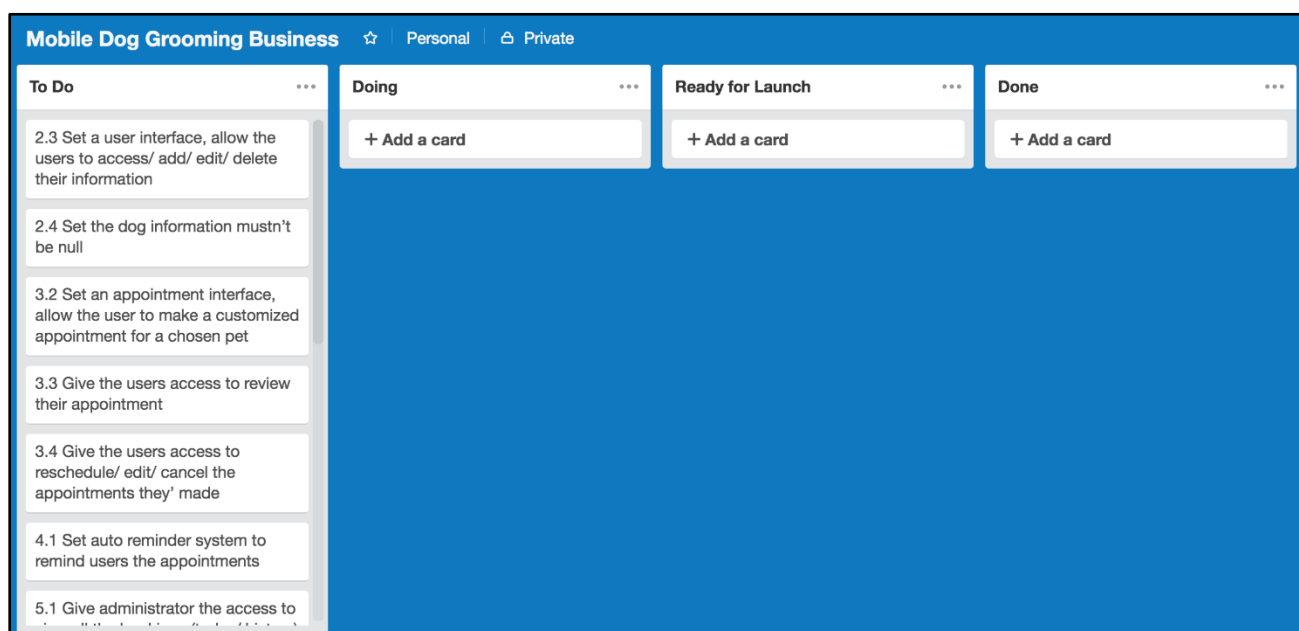

Figure 3: Agile framework

Enhancement User Stories:

1. As a site member, I can pay the bills by card online.

2. As a site member, I can choose the appointment time based on the distance.

Product Backlog		Sprint Backlog
User Story	Story Point	Task Breakdown
Story 1	5	1. Set online payment system (cooperate with credit card payment system / PayPal)
Story 2	15	1. Add GPS system to locate the users' location
		2. Set system to calculate the distance automatically
		3. Set appointment time selection drop-down list based on the distance

Table 10: Enhancement user stories

All the further planning will be made in the future progress.

4. Project Execution, Monitoring and Control

4.1 Project status: Friday week 9

This is the first week for this project and project team overfulfilled all required tasks punctually along with some extra tasks. At the beginning of this sprint a sprint planning meeting was held inviting all relevant members to clarify the tasks in this week, and at the end of this sprint a sprint review and sprint retrospective were held for team to review what have done in this week, what was done good and what need to be improved to guarantee this project will be undertaken efficiently. Also, make improvement plan for future development.

4.1.1 Process related artefacts

1. Sprint Planning Meeting

Sprint planning meeting is about what should the team done in this sprint, holding every week before the sprint, to mak sure everyone knows their responsibilities in this week. And refine the sprint goal and backlog in this week. Participants in this meeting are product owner, scrum master and all developers. The outcome of this meeting is the basis in checking the achievement at the end of a sprint.

➢ **Agenda**

Mobile Dog Grooming Business

Agenda – Sprint planning meeting # 1
29 April 2018 – 1:00pm to 3:00pm

Melbourne University – Old Engineering Building Meeting room G79

ITEM	TITLE	TYPE	LEAD
1	Greetings and welcome	Verbal	Product Owner
2	Introduce the business in general	Papers	Product Owner
3	Explain user requirements	Verbal	Product Owner
4	Decide what can be done in this Sprint	Verbal	Scrum Master
5	Open forum	Verbal	Scrum Master
6	Create Sprint Goal	Papers	Scrum Master
7	Identify tasks to be completed in the Sprint	Verbal	Scrum Master
8	Open forum	Verbal	Scrum Master
9	Create Sprint Backlog	Papers	Scrum Master
10	Decompose the items of Sprint Backlog into tasks with Story Points	Papers	Scrum Master
11	Review action items of this meeting	Verbal	Product Owner
12	Praise and encourage	Verbal	Product Owner

Table 11: Sprint 1's sprint planning agenda

➢ **Sprint Planning Meeting Minutes**

The minutes of this meeting see in Appendix I Section 1.1 – Sprint Planning Meeting Minutes

➢ **Sprint Planning Meeting Inputs and Outcomes**

· **Sprint planning inputs:**

1) Refined Product Backlog:

Refined Product Backlog		
#	User Stories	Story Points
1	As a site member, I can log in with email and password.	5
2	As a site member, I can modify my profile.	8
3	As a site member, I can make an appointment with the groomer.	10
4	As a site member, I can receive auto reminder of my appointment	3
5	As a site administrator, I can view all the bookings	2
6	As a site administrator, I can manage all the bookings.	3

Table 12: Refined product backlog

2) Definition of Ready:

Because of the success in first round, we are ready to start this project. Besides, after the first meeting of clarification the requirements and responsibilities for each member, a clear awareness of this project is constructed, which means it is time to start this project.

3) Key Stakeholders:

The key stakeholders are detailed stated in the section 2.1.

· Sprint planning outcomes:

1) Updated Product Backlog:

As some items of the Product Backlog is pulled out to be completed in the 1st Sprint, here is the Updated Product Backlog with the left Stories.

Updated Product Backlog		
#	User Stories	Story Points
3	As a site member, I can make an appointment with the groomer.	10
4	As a site member, I can receive auto reminder of my appointment	3
5	As a site administrator, I can view all the bookings	2
6	As a site administrator, I can manage all the bookings.	3

Table 13: Updated product backlog

2) Sprint Goal for 1st Sprint:
a. Deliver a register interface and a login interface of the website.
b. Set up databases to store login details (user's email and password), user's details and pet's details.

3) Sprint Backlog for 1st Sprint:

Sprint Backlog for 1st Sprint		
Product Backlog	Low Level User Stories	Story Points
Story 1	1. As a site member, I can visit the website.	5
	2. As a site member, I can read the page of the website.	
	3. As a site member, I can register with email, username and password	
	4. As a site member, I can log in with email and password.	
	5. As a site member, I will receive an error message when register with a duplicate username or email.	
	6. As a site member, I will receive an error message when login with an unmatched combination of email and password.	
Story 2	1. As a site member, I can record my personal details.	4
	2. As a site member, I can record my pet's details.	

Table 14: sprint backlog for 1st sprint

Task	Mon	Tue	Wed	Thu	Fri	Sat
1.1 Build a user database (users' emails and passwords)	1					
2.1 Add entries into the users' database (name/ home address/ multiple contact phone numbers)	1					
2.2 Build a pet database (name/ breed/ birthday)		1				
1.2 Set 'register' system			5			
1.4 Add 'log in' system				4		
1.2 Add error 'register' (duplicated username/ email)					3	
1.5 Add error 'log in' (username/email not match)						3

Table 15: Tasks break down in 1st sprint

4) Sprint Review Date:

The team decide to hold a Sprint Review Meeting on 5th May 2018.

5) Estimated Velocity:

The estimated tasks that we planned to accomplish have 9 Story Points. And we planned to complete them in 7 days.

Hence, the estimated velocity for 1st Sprint is:

$$V = \frac{SP}{Ti} = \frac{9}{7} \approx 1.3$$

6) Planned Development Activities:

Here are the assigned tasks for the team at the planning stage.

Planned Development Activities for 1st Sprint (Week 9)			
Planned Development Activities	**Estimated hours**	**Time**	**Assigned to**
Set up a login database to store user's login details	1	Mon	Yuke Xie
Set up a user database to store user's personal details	1	Mon.	Yuke Xie
Set up a pet database to store pet's details	1	Mon.	Silan Li
Set up a register interface registering with username, email and password	5	Wed.	Yinghua Shi
Build a login interface logging in with email and password	4	Thu.	Yinghua Shi
Add an error message when login with unmatched combination of email and password	3	Fri	Ailin Zhang
Add an error message when register with a duplicated username or email	3	Fri	Ailin Zhang

Table 16: Planned development activities

7) Definition of Done:

This is a checklist for the items picked from Product Backlog to the 1st Sprint Backlog, which are considered to complete.

Functionally, website can be opened successfully by several mobile devices, the databases can be loaded and the 'register' and 'log in' systems can work without error.

Sprint Backlog for 1st Sprint		
Product Backlog	**Low Level User Stories**	**Status**
Story 1	1. As a site member, I can visit the website.	Planned to complete
	2. As a site member, I can read the page of the website.	
	3. As a site member, I can register with email, username and password	
	4. As a site member, I can log in with email and password.	
	5. As a site member, I will receive an error message when register with a duplicate username or email.	
	6. As a site member, I will receive an error message when login with an unmatched combination of email and password.	

Table 17: Definition of done in sprint planning

2. Sprint Review Meeting

Sprint review is about a demonstration of the functionality built during the sprint, which is held every week at the end of the sprint, inviting audience from society to evaluate the demo produced. And according to the feedbacks from this meeting to define what need to be improved in the future.

➢ **Agenda**

Mobile Dog Grooming Business

Agenda – Sprint Review Meeting # 1
5 May 2018 – 10:00am to 12:00pm

Melbourne University – Kwong Lee Dow Building Q219 Lecture Theatre

ITEM	TITLE	TYPE	LEAD
1	Welcome and self-introduction	Verbal	Product Owner
2	State what will be demonstrated	Verbal	Product Owner
3	Present latest-version product and analyze new functions	demo	Scrum Master
4	Discuss Business Condition	paper	Develop team leader/ CFO/ CMO
5	Present Upcoming Product Backlog Items	Verbal	Scrum Master
6	Conclude the Meeting	Verbal	Product Owner

Table 18: Sprint review agenda in sprint 1

➢ **Sprint Review Meeting Minutes**

The minutes of this meeting see in Appendix I Section 1.2 – Sprint Review Meeting Minutes

➢ **Sprint Review Inputs and outcomes**

·   **Sprint Review Inputs:**

1) Product Backlog:

Product Backlog	Status
User Story 1: As a site member, I can log in with email and password.	Done
User Story 2: As a site member, I can modify my profile.	Partly Done
User Story 3: As a site member, I can make an appointment with the groomer.	Partly done
User Story 4: As a site member, I can receive auto reminder of my appointment.	Not Done
User Story 5: As a site administrator, I can view all the bookings.	Not Done
User Story 6: As a site administrator, I can manage all the bookings.	Not Done

Table 19: Product backlog

2) Product Increment:

For now, the development team have finished product backlog item 1, which allows the user to log into the website. The team also have finished some small components in the next product backlogs, such as databases of users, pets and appointment system. Since this is the first releasable version of the product, there is no product increment compared to last version.

And the tasks finished in this sprint can be intuitively seen in Kanban boards

Timesheets for all team members are seen in Appendix I Section 2 – Timesheets per person.
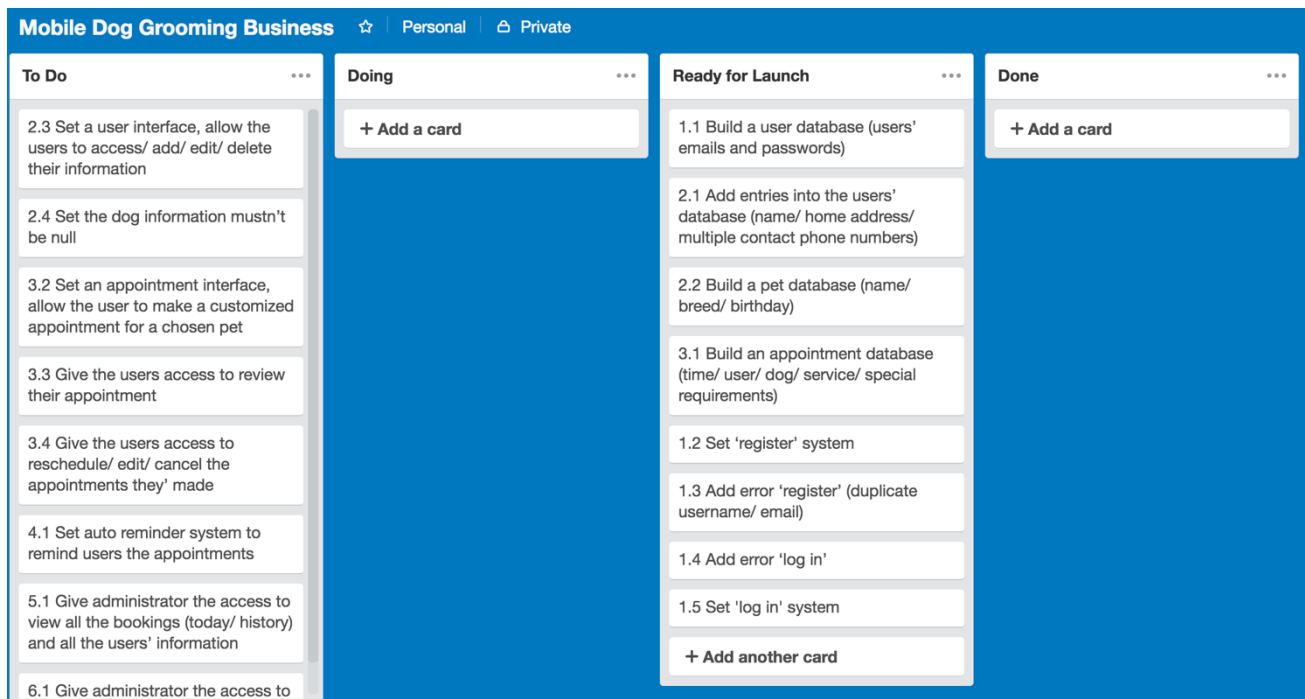
Figure 4: Kanban boards

3) **Sprint Goal:** See Sprint Planning I/O.

4) **Sprint Backlog:** See Sprint Planning I/O.

5) **Definition of Done:** See Sprint Planning I/O.

6) Business Conditions:

The business has overcome the financial problem by raising money successfully. Now it can start on its business and keep it on track. Through the latest marketing survey, it has been found that the grooming markets seem matured, there are lots of well-developed online or mobile grooming shops. To set up unique corporate culture, besides Tom's talent grooming skills, the design of the website has to be reconsidered.

· **Sprint review outcomes:**

1) Revised Product Backlog:

After analyzing the current dog grooming market, the competition is found very intense, there are lots of well-developed online grooming shops as competitors. One new product backlog is added into the list after Sprint Review, which is reconsider the design of the website.

2) Inspected Product Increment:

The management team decided to hire a skilled UI design to redesign the whole interface of the website, in order to make it more fashionable, concise and professional. This is a necessary procedure in present matured e-commerce market.

3) Completion Date Forecast:

The next release date of the next version of the product is determined on 12 of May, the next Saturday.

4) Velocity estimations:

Since the formula to calculate velocity is $V = \frac{SP}{Ti}$

Number of story points (SP) completed are 11.5

Time period (Ti) over which they were completed is 7 days,

Therefore, the velocity is $V = \frac{SP}{Ti} = \frac{11.5}{7} = 1.6$

Comparing with the ideal velocity $V = \frac{SP}{Ti} = \frac{9}{7} \approx 1.3$

To conclude, the project is processed a little faster than the estimated velocity, in which the difference value 0.3 can be ignored.

3. Sprint retrospective

Sprint retrospective is held every week after sprint review for an hour, inviting all team members include product owner and scrum master as well to conclude the feedbacks and outcomes from sprint review, enable stakeholders to supervise the functionality of the team and plan for the future process.

➢ **Agenda**

Table 20 is about the agenda of sprint retrospective meeting in sprint 1

➢ **Sprint Retrospective Meeting Minutes**

The minutes of this meeting see in Appendix I Section 1.3 – Sprint Retrospective Meeting Minutes

	Mobile Dog Grooming Business

Agenda – Sprint retrospective # 1
5 May 2018 – 1:30pm to 2:30pm

Melbourne University – Kwong Lee Dow Building Q219 Lecture Theatre

ITEM	TITLE	TYPE	LEAD
1	Call to order	Verbal	Scrum master
2	Summary of sprint activities	Paper	Scrum master
3	What did we deliver in this sprint	Verbal	Everyone
4	Sprint burndown	Paper	Scrum master
5	What were the impediments that we faced	Verbal	Everyone
6	What went well	Verbal	Everyone
7	What can we do better	Verbal	Everyone
8	Lessons learnt, action items and closing comments	Paper	Scrum master

Table 20: Sprint retrospective meeting agenda in sprint 1

➢ **Sprint Retrospective Inputs and Outcomes**

· **Sprint Retrospective Inputs**

1) **Definition of Done:** See sprint planning meeting outcomes

2) **Sprint Backlog:** See sprint planning meeting outcomes

3) **Sprint Goal:** See sprint planning meeting outcomes

· **Sprint Retrospective Outcomes**

1) Updated Definition of Done:

a. Databases can share and exchange data with one another base on the foreign keys.

b. To ensure that the function works exacted as expected, an executable pop out window of the success in function or an auto direction to target page is needed in functionality.

c. Only after a function is tested by every member in this project along with a successful public demo demonstration can tell this function is done.

2) Improvement Plans:

a. Since this is an efficient team, a compacter sprint is acceptable for next sprint.

b. Because the incompact arrangement of tasks, some team members did not pay much attention to this project so that the scrum master should supervise every member are fully engaged in.

c. A deeper and wider market survey is required to analysis the competitiveness in this project and the strength and weakness in competitors.

d. Because of lack of designing experience in this team, a new UI designer or a third-party design team is requested for next sprint.

4.1.2 Product related artefacts

1) Requirements

In this 1st Sprint, the requirements have been delivered are presented as follows:

a. User login function
Users are required to login with an email address so that they can receive the reminding email of appointments and the administrator are able to contact them with them, which are the user names of users as well. Correspondingly, a unique password is demand for every user to login his account after registration and is the protection of their personal information.

b. Select a dog from personal records
Customers can choose the dog that needs grooming from the records. This function is much efficient for users who feed few dogs and also enable groomers know much of the dogs and their preference.

c. Choose service content about grooming option and price tags
There are several grooming services provided in this business, including washing, haircutting, styling and others. Users can choose the demand services for this appointment when booking so that groomer can prepare for it. Moreover, for the same service, different grooming products and groomers offer different prices and users can see the price tags for them when booking as well so that they can choose a reasonable service and price for this appointment.

d. Add special requirements to the appointment
This function provides users a space for special requirements in grooming, for example, users may comment the color or style they like in this field or mention the tools that might not be provided at their home like combs or towels.

2) Use cases

In this 1st Sprint, the use cases have been delivered are presented as follows:
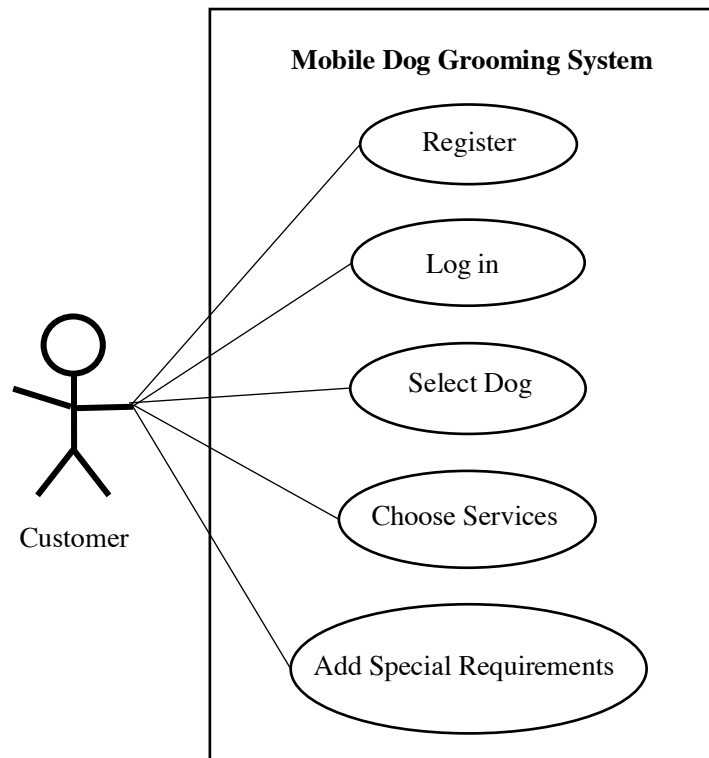
Mobile Dog Grooming System

Figure 6: Use cases

3) Covered user stories

All tasks in user story 1 has been fully completed.

User Story	Task Breakdown
Story 1	1.1 user information database (email/passwords)
	1.2 user registration function
	1.3 duplication error pop out in registration function
	1.4 user login function
	1.5 login mismatching error pop out
Story 2	2.1 user database (name/ home address/ multiple contact phone numbers)
	2.2 pet database (owner/name/ breed/ birthday)
Story 3	3.1 appointment database (time/ user/ dog/ service/ special requirements)

Table 21: Covered user stories

4) Designs

a. Website structure

The picture below shows the design of the structure of the website. The primary functions are registration and the following functions will be added.
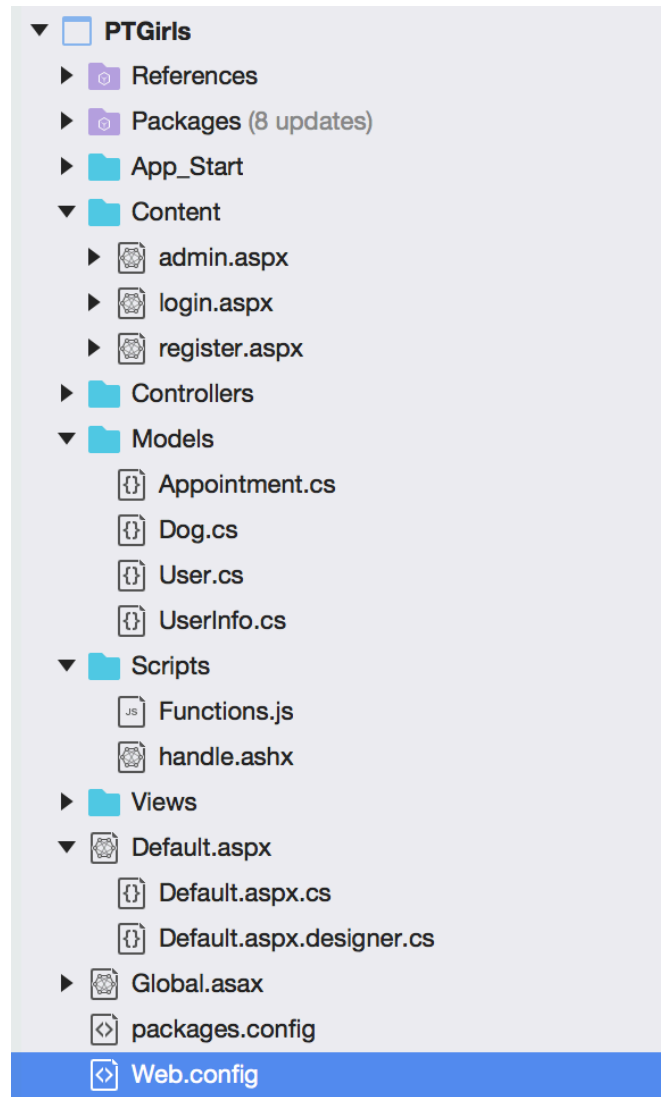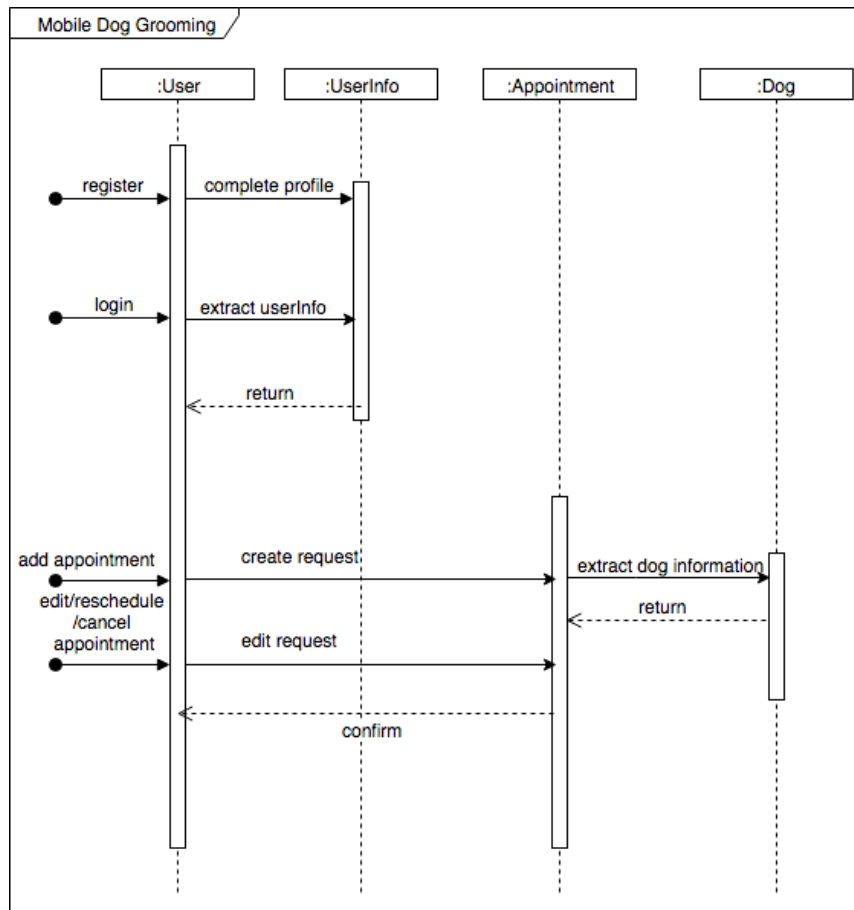

Figure 7: Website structure 1

Figure 8: Website structure 2

b. Database

The realization of the database follows the design in section 2.2.1. The actual data will be stored in a file on the server. The design models used by the website are as follow:
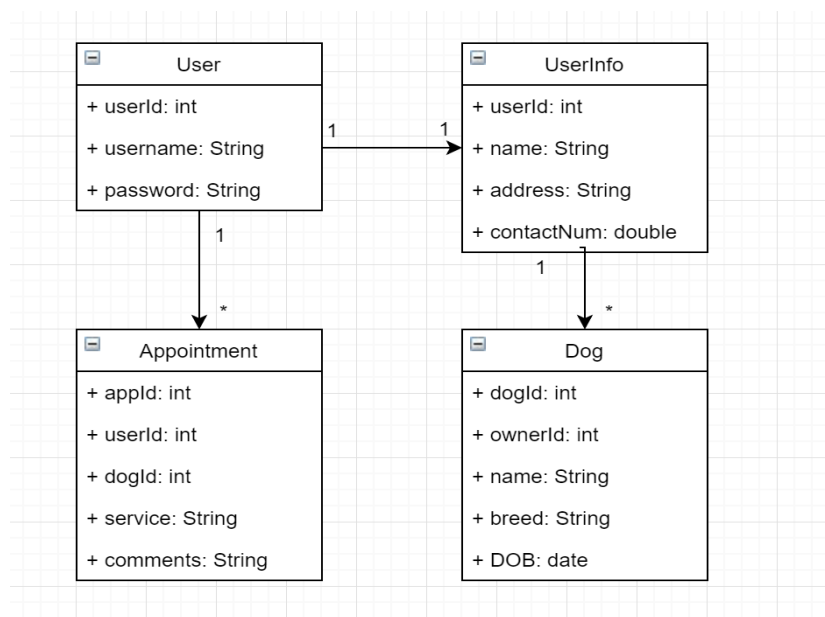

Figure 9: Database structure

5) Completed features lists

Web Application	
User login function	√
Profile modification	
Appointments function	
Add, edit, cancel, review available appointments	
Select a dog from personal records	
Choose service content about grooming option and price tags	
Special requirements field	
Confirmation sending	
Auto reminder after confirmation	
Admin function	
Database	√

Table 22: Completed features list

4.1.3 Risk monitoring and control

As the risks predicted in section 3.3, there are some expected risks appeared at current stage, though most of task completed favorably as planned, and some of the risks been eliminated effectively as well as some new risks unexpected appear. Due to the approaches taken so far, the impacts and frequency are also changed.

Legislation restriction is the severest risk among all the risks estimated, for this project or business cannot run without a legal license. And with the effort of product owner, all the licenses required for this project (grooming qualification, business certificate) are obtained so that there is no juridical risk and this business can continue legally.

Besides, the exposures of some risks have fallen based on the joint effort of every team members. Firstly, because of new loan been approved by sponsors, current financial circumstance has been

changed as well in a good way. Although it would still impact a lot once economic issues occur but the probability of the shortage in funds declines sharply. Secondly, the hypothesis of stakeholders' not fully engaged have been rejected as they have pay enough attention to this project because of its difficulty along with urgency, in which case the probability of this risk decreases a lot as well. On account of all the tasks have been detailed and break down so that the impact of stakeholders' not attending meetings would decrease as well. Lastly, at the beginning of this project, there are some technical problems with software we used, with which developer are not familiar, but after change to another developing software, the process of development become smoothly and we have caught up with planned process.

However, there are some risks indicate more serious impacts than expected. Because of the limited number of developers in this project and they are engaged in several projects at the same time, there is a high possibility that the tasks cannot be completed punctually. For this reason, the duration of this project should be extended or product owner could build reward and punishment mechanism to force team members to focus on this project and get more involved in it. Scrum master could strengthen the supervision of the project to ensure tasks finished on time and qualified.

Additionally, after our market surveying of mobile grooming service, numbers of enterprises offer similar or exactly the same service as us (Aussie pooch mobile, blue wheelers, Jim's dog wash), which is considered as lacks in market before. And this means much fiercer market competitions and harder to occupy the market since late access in the future and tougher in promotion. In this situation, a deeper and wider analysis of competitors is needed to know the strengths and weakness in their services, particularly in online appointment system. Then reposition of our system and company to gain more competitiveness.

Lastly, besides these risks we considered before, some new risks appear during this project. We thought the only challenge in development is the functionality, but on account of fierce market competition, a humanized and nice user interface in this system is also of great importance. Whereas, the lack of UI designer makes this process a tough work and may result in no aesthetic user interface. To reduce the risks, product owner could hire a new UI designer into project team or outsource designs to a third-party design enterprise, while this means higher investment.

According to the changes in risks, the corresponding risk managements and analyses have changed in section 3.3.

4.2 Project status: Friday week 10

Based on the foundation of week9, the team completed main functions of the product in this week. Till now, users can register, log in, modify profile and make an appointment. In this week sprint, the team implemented the profile modification function, book appointment function, review appointment function, and confirm function. During this sprint, a sprint planning meeting is held at the beginning. The team added two requirements and determined this week's Sprint Backlog. The daily stand-up meetings are held every day before starting working. At the end of this sprint, a sprint review meeting and a sprint retrospective meeting are held to judge this week's work.

4.2.1   Process related artefacts

1. Sprint Planning Meeting

This meeting is held before the start of week 10 sprint. The purpose of it is to ensure all members having a categorical understanding of what they are going to do this week. All members attended this meeting. The artefacts related to the meeting are presented as follows.

➢   **Agenda**

Mobile Dog Grooming Business			

Agenda – Sprint planning meeting # 2

6 May 2018 – 1:00pm to 3:00pm

Melbourne University – Old Engineering Building Meeting room G79

ITEM	TITLE	TYPE	LEAD
1	Greetings and welcome	Verbal	Product Owner
2	Briefly summarize the work done in last sprint	Verbal	Product Owner
3	Refine the Product Backlog	Paper	Product Owner
4	Decide what can be done in this Sprint	Verbal	Scrum Master
5	Open forum	Verbal	Scrum Master
6	Create Sprint Goal	Papers	Scrum Master
7	Identify tasks to be completed in the Sprint	Verbal	Scrum Master
8	Open forum	Verbal	Scrum Master
9	Create Sprint Backlog	Papers	Scrum Master
10	Decompose the items of Sprint Backlog into tasks with Story Points	Papers	Scrum Master
11	Review action items of this meeting	Verbal	Product Owner
12	Praise and encourage	Verbal	Product Owner

Table 23: Sprint 2's sprint planning agenda

➢ **Sprint Planning Meeting Minutes**

The minutes for the Sprint Planning Meeting is presented in Appendix II Section 1.1 – Sprint Planning Meeting Minutes

➢ **Sprint Planning Meeting Inputs and Outcomes**

· **Sprint Planning Meeting Inputs:**

1) Refined Product Backlog:
Referring to the tasks have been done in last sprint, the Product Backlog has been refined and presented as follows.

Refined Product Backlog		
#	**User Stories**	**Story Points**
2	As a site member, I can modify my profile.	8
3	As a site member, I can make an appointment with the groomer.	12
4	As a site member, I can receive auto reminder of my appointment	3
5	As a site administrator, I can view all the bookings	2
6	As a site administrator, I can manage all the bookings.	3
7	As a site member, I can use BBS platform to communicate with other users.	20

Table 24: Refined Product Backlog

2) Definition of Ready:
The databases including login database, user detail database, dog database, and appointment database are accomplished during the 1st Sprint. These set up the foundation of building the profile interface and appointment function. Hence, these features can be considered as ready.

3) Key Stakeholders:
As it is changed in section 2.1, key stakeholders are redeclared with full comprehension of this project after an in-depth discussion with product owner and team. The team figured out that the local bank and users have very little influence on the process of accomplishing the project. Therefore, they should not be considered as key stakeholders.

· **Sprint Planning Meeting Outcomes:**

1) Sprint Backlog for Week 10's Sprint:
The sprint backlog and the task breakdown for the Week10 Sprint are shown as below.

Sprint Backlog for Week10 Sprint		
Product Backlog	Low Level User Stories	Story Points
Story 2	1. As a site member, I can read and access to my profile detail page.	4
	2. As a site member, I can add, edit or delete my profile information.	
	3. As a site member, I must add at least one dog to my profile.	
Story 3	1. As a site member, I can read and access to appointment page.	8
	2. As a site member, I can make a customized appointment for a chosen dog.	
	3. As a site member, I can review my appointment detail after booking.	
	4. As a site member, I will receive a confirm letter when I successfully booked an appointment.	

Table 25: Sprint Backlog for Week10 Sprint

Task	Sun	Mon	Tue	Wed	Thu	Fri	Sat
2.3 Design and deliver an interface to display user profile.		2					
2.4 Link the interface with user database built in last sprint to allow users to modify their profile details.		1	2				
2.5 Ensure the dog information cannot be null for each user.			1				
3.1 Design and implement appointment interface.				2			
3.2 Link the appointment interface with multiple related databases, allow users to make a customized appointment for a chosen dog.				2	3		
3.3 Implement a review function after booking an appointment.						2	
3.4 Send a confirm letter including booking details to user after a successful booking via email.						2	

Table 26: Tasks Breakdown for Week10 Sprint

2) Sprint Goal for Week10 Sprint:

a.   Implement profile modification function and appointment making function for users.

b. Display all bookings for reviewing and send a confirm letter after a successful booking.

3) Updated Product Backlog:

As decided in sprint planning meeting, some items from refined product backlog are picked to be accomplished in week 10's sprint. Therefore, the updated product backlog is presented as follows.

Updated Product Backlog		
#	**User Stories**	**Story Points**
4	As a site member, I can receive auto reminder of my appointment	3
5	As a site administrator, I can view all bookings	2
6	As a site administrator, I can manage all bookings.	3
7	As a site member, I can use BBS platform to communicate with other users.	20

Table 27: Updated Product Backlog

4) Sprint Review Date:

The team decide to hold a Sprint Review Meeting for this sprint on 12th May 2018.

5) Estimated Velocity:

The estimated tasks that the team planned to complete is equal to 12 Story Points. And the determined time to accomplish is 7 days.

Therefore, the estimated velocity for Week10 Sprint is:

$$V = \frac{SP}{Ti} = \frac{12}{7} \approx 1.7$$

6) Planned Development Activities:

The table 28 below shows the assigned tasks for the team at the planning stage.

7) Definition of Done:

This is a checklist for the items picked from Product Backlog to Sprint Backlog. And the status of their completion is shown in table 29.

Planned Development Activities for Week10 Sprint			
Planned Development Activities	**Estimated hours**	**Time**	**Assigned to**

Design and deliver the interface for user profile.	2	Mon.	Yinghua Shi
Link the interface with user database built in last sprint.	1	Mon.	Yuke Xie
Allow the user modifying his profile details.	2	Tue.	Yuke Xie
Ensure the dog information of a profile must not be null.	1	Tue.	Yuke Xie
Design and implement appointment interface.	2	Wed.	Yinghua Shi
Link the appointment interface with related databases.	2	Wed.	Silan Li
Allow users making a customized appointment for a chosen dog including choosing service with price.	3	Thu.	Silan Li
Implement a review function after booking an appointment.	2	Fri.	Ailin Zhang
Deliver a confirm letter including the booking details to user's email address after a successful booking.	2	Fri.	Ailin Zhang

Table 28: Planned Development Activities for Week10 Sprint

Definition of Done for Week10 Sprint		
Product Backlog	**Low Level User Stories**	**Status**
Story 1	1. As a site member, I can visit the website.	Completed in Week9
	2. As a site member, I can read the page of the website.	
	3. As a site member, I can register with email, username and password	
	4. As a site member, I can log in with email and password.	
	5. As a site member, I will receive an error message when register with a duplicate username or email.	
	6. As a site member, I will receive an error message when login with an unmatched combination of email and password.	
Story 2	1. As a site member, I can record my personal details.	
	2. As a site member, I can record my pet's details	
	3. As a site member, I can read and access to my profile detail web page.	Planned to Complete in Week10
	4. As a site member, I can add, edit or delete my profile information.	
	5. As a site member, I must add at least one dog to my profile.	
Story 3	1. As a site member, I can record the details of my appointment.	Completed in Week9

	2. As a site member, I can read and access to the appointment website page.	Planned to Complete in Week10
	3. As a site member, I can make a customized appointment for a chosen dog.	
	4. As a site member, I can review my appointment detail after booking.	
	5. As a site member, I will receive a confirm letter when I successfully booked an appointment.	
	6. As a site member, I can modify my booked appointment.	Not Yet Planned
Story 4	1. As a site member, I will receive an auto reminder for my appointment.	
Story 5	1. As a site administrator, I can view all the bookings	
Story 6	1. As a site administrator, I can manage all the bookings.	
Story 7	1. As a site member, I can use BBS platform to communicate with other users.	

Table 29: Definition of Done till Week10

2. Sprint Review Meeting

Sprint review is a demonstration of the functionality built during the sprint, which is held every week at the end of the sprint, inviting audience from society to evaluate the demo produced. And according to the feedbacks from this meeting to define what need to be improved in the future.

➢ **Agenda**

The table30 below shows the detail of the Sprint Review Meeting Agenda for Week10 Sprint.

➢ **Sprint Review Meeting Minutes**

The minutes of this meeting is detailed presented in Appendix II Section 1.2 – Sprint Review Meeting Minutes

Mobile Dog Grooming Business

Agenda – Sprint Review Meeting # 2
12 May 2018 – 10:00am to 12:00pm

Melbourne University – Kwong Lee Dow Building Q219 Lecture Theatre

ITEM	TITLE	TYPE	LEAD
1	Welcome and self-introduction	Verbal	Product Owner
2	State what will be demonstrated	Verbal	Product Owner
3	Present latest-version product and analyze new functions	Demo	Scrum Master
4	Discuss Business Condition	Paper	Develop team leader/ CFO/ CMO
5	Present Upcoming Product Backlog Items	Verbal	Scrum Master
6	Conclude the Meeting	Verbal	Product Owner

Table 30: Sprint Review Meeting Agenda for Week10 Sprint

➢ **Sprint Review Inputs and outcomes**

· **Sprint Review Inputs:**

1) Product Backlog:

Product Backlog	Status
User Story 1: As a site member, I can log in with email and password.	Done
User Story 2: As a site member, I can modify my profile.	Done
User Story 3: As a site member, I can make an appointment with the groomer.	Partly Done
User Story 4: As a site member, I can receive auto reminder of my appointment.	Not Done
User Story 5: As a site administrator, I can view all the bookings.	Not Done
User Story 6: As a site administrator, I can manage all the bookings.	Not Done
User Story 7: As a site member, I can use BBS platform to communicate with other users.	Not Done

Table 31: Product backlog

2) Product Increment:

For now, the development team have finished majority parts of product backlog, which allows users

to log into the website, edit their information and make appointments. The team also have finished some small components in next product backlogs.

The incremental product backlogs are UI design, confirm letter and social network platform. The first two functions have been finished, while the last one has no time to do.

The tasks finished in this sprint can be intuitively seen in below Kanban Boards.

Timesheets for all team members can be seen in Appendix II Section 2 – Timesheets Per Person for Week10 Sprint.
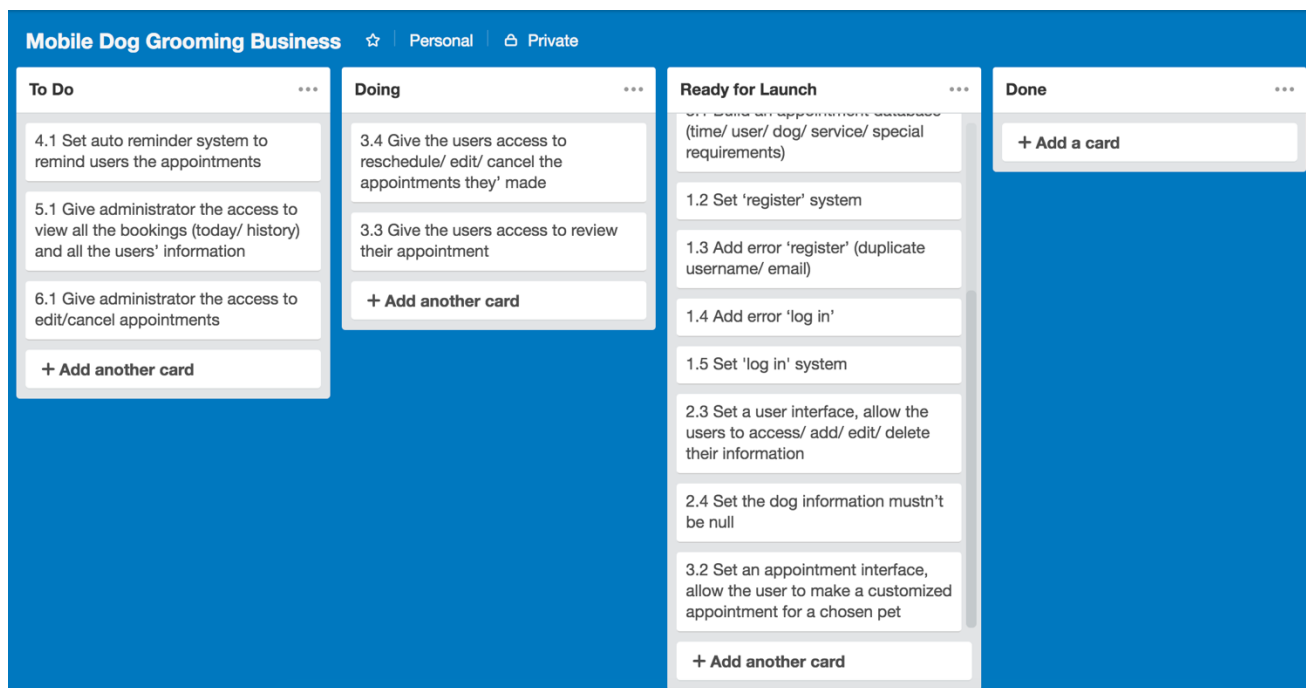

Figure 10: Kanban Boards

3) **Sprint Goal:** See Sprint Planning I/O.

4) **Sprint Backlog:** See Sprint Planning I/O.

5) **Definition of Done:** See Sprint Planning I/O.

6) **Business Conditions:**

The market competition has become more and more fierce. The company has changed its marketing strategy to appeal to customers. For example, providing lower prices and higher quality services; giving discounts from time to time; extend the scope of services, such as hanging dog or selling dog food.

Due to the market environment, some sponsors have left during the project. It is urgent to look for

some new sponsors.

· **Sprint review outcomes:**

1) Revised Product Backlog:
This is the second released version of product. Due to the pressure from other competitors, some increments were designed in Sprint Review Meeting. The managers want to make the website friendlier to users.

a. Replace confirm letter function with a confirm button

b. Add social network platforms to create a user-friendly website

2) Inspected Product Increment:
So far, all the managers are satisfied with the interface. The colors on the page are matched and make the interface looks harmonious. Some cartoon elements are added into logo and buttons, which makes it look cuter and is corresponding to the impression of dog grooming service.

It needs the confirmation letter to help users to make sure that they have booked successfully. Sometimes the internet crashes may result in a failure of booking without any notice. The users must go to their appointment page to check the status. The confirmation letter can be an important evidence of booking. However, the managers realized this is not a convenient function after the review of demo. They want to change it to a confirm button, which is more user-friendly because you can double check the appointment information right after your booking.

BBS platform can help connect the company with customers. They can exchange each other's grooming experience or give suggestions to the company and groomers. Although it has not been built, it is still believed as an important function to be realized next week.

3) Completion Date Forecast:
The next release date of the next version of the product is determined on 19 of May, the next Saturday.

4) Velocity estimations:

Since the formula to calculate velocity is $V = \frac{SP}{Ti}$

Number of story points (SP) completed are 9

Time period (Ti) over which they were completed is 7 days,

Therefore, the velocity is $V = \frac{SP}{Ti} = \frac{9}{7} = 1.28$

Comparing with the ideal velocity $V = \frac{SP}{Ti} = \frac{12}{7} \approx 1.7$

To conclude, the project is processed slower than the estimated velocity, in which the difference value is 0.42.

3. Sprint retrospective Meeting

Sprint retrospective is held every week after sprint review for an hour, inviting all team members include product owner and scrum master as well to conclude the feedbacks and outcomes from sprint review, enable stakeholders to supervise the functionality of the team and plan for the future process.

➢ **Agenda**

The sprint retrospective this week is held on Friday, 12th May, the same time and location as last week. The agenda this week is shown below in table 32.

Mobile Dog Grooming Business

Agenda – Sprint retrospective # 2
12 May 2018 – 1:30pm to 2:30pm

Melbourne University – Kwong Lee Dow Building Q219 Lecture Theatre

ITEM	TITLE	TYPE	LEAD
1	Call to order	Verbal	Scrum master
2	Summary of sprint activities	Paper	Scrum master
3	What did we deliver in this sprint	Verbal	Everyone
4	Sprint burndown	Paper	Scrum master
5	What were the impediments that we faced	Verbal	Everyone
6	What went well	Verbal	Everyone
7	What can we do better	Verbal	Everyone
8	Lessons learnt, action items and closing comments	Paper	Scrum master

Table 32: Sprint Retrospective Meeting Agenda for Week10 Sprint

➢ **Sprint Retrospective Meeting Minutes**

The minutes of this meeting can be seen in Appendix II Section 1.3 – Sprint Retrospective Meeting Minutes.

➢ **Sprint Retrospective Meeting Inputs and Outcomes**

· **Sprint Retrospective Inputs**

1) **Definition of Done:** See sprint planning meeting outcomes this week.

2) **Sprint Backlog:** See sprint planning meeting outcomes this week.

3) **Sprint Goal:** See sprint planning meeting outcomes this week.

· **Sprint Retrospective Outcomes**

1) **Updated Definition of Done:**

a. All functions and the entire system been tested by all members before delivery

b. The interface and system can interact well with users friendly.

c. Refined system based on the feedbacks in sprint review meeting

2）**Improvement Plans:**

a. Every member not only focus on their own works but also help each other when necessary to ensure the delivery of product.

b. Refined the price tags for services and update into appointment functions.

c. Looking for a new sponsor immediately so that the product can be delivered successfully.

d. Modifying the product backlog in next sprint planning meeting and cut down unnecessary functions to make sure this project can be completed punctually.

4.2.2 Product related artefacts

1) Requirements
In week10 Sprint, the requirements have been delivered are presented as follows:

a. Profile modification
This website should enable each user has their own profile about personal information so that system administrator can know a little about his customers. In this case, users should be capable of adding their information including name, address, mobile number and information about their dogs and modifying them once these items are changed. Besides, at least one dog must be added under a user's profile.

b. Book an appointment for a chosen dog.

Once a user has the requirements for grooming his dog, he can simply book a new appointment through our website. The user can choose one of his dogs from the records. This sub-function is much efficient for users who feed few dogs and also enable groomers know much of the dogs and their preference.

**c. Select a grooming service with price tag when booking an appointment.**

There are several grooming services provided in this business, including washing, grooming and health checking. Users can choose the demand services for their appointment, so that groomer is able to prepare for it. Moreover, for the same service, different grooming products and groomers offer different prices and users can see the price tags for them when booking as well so that they can choose a reasonable service and price for the appointment.

d. Review and confirm the appointment to complete booking.

After finishing selecting the appointment information, the chosen contents and a total cost of the appointment may be estimated. If user have any trouble with it, they can go back to previous options and select another choice. When user is satisfied with it, then a confirm letter would be sent to user's email address and this appointment is completely finished and booked.

2) Use cases

Till week10 sprint, the use cases that have been delivered are presented as follows:
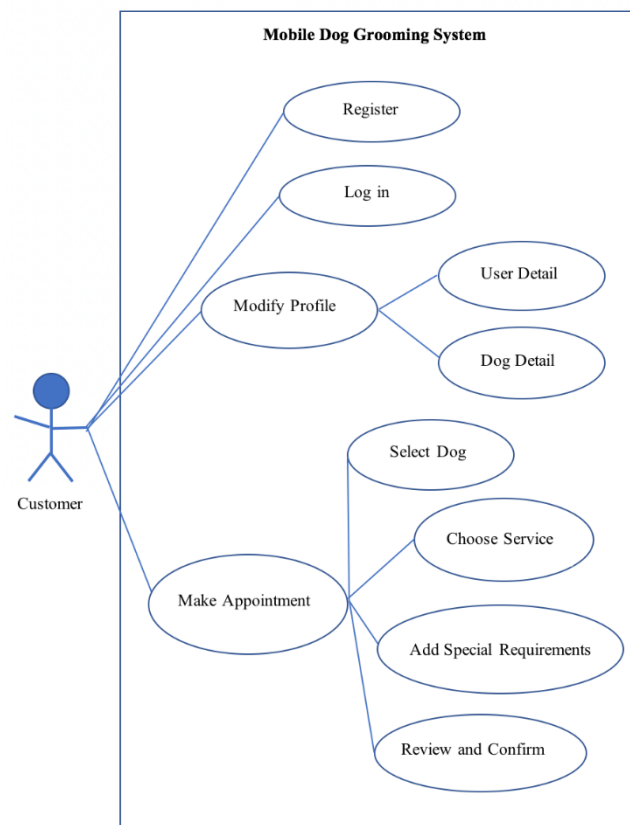
Figurer 11: Use Cases

3) Covered user stories

The user stories covered in this sprint and task breakdown for each user story are presented in following table.

User Story	Task Breakdown
Story 2	2.3 Design and deliver the interface for user profile
	2.4 Link the interface with the profile database built in the last sprint, to allow users modifying their profile details.
	2.5 Ensure the dog information of a profile must not be null.
Story 3	3.2 Design and implement appointment interface.
	3.3 Link the appointment interface with the multiple related databases, allow users making a customized appointment for a chosen dog
	3.4 Implement a review function after booking an appointment.
	3.5 Deliver a confirm letter including the booking details to user's email address after a successful booking.

Table 33: Covered user stories

4) Designs

a. Database

The design of database is changed during this week due to some simplification on reading date.
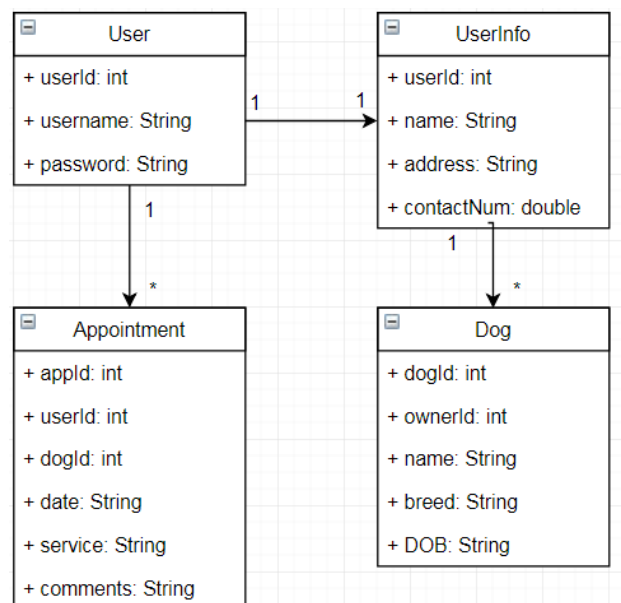

Figure 12: Database Structure till Week10 Sprint

b. Website structure

The picture below shows an adapted design of the structure of the website. More functions are developed and some models and pages are added.
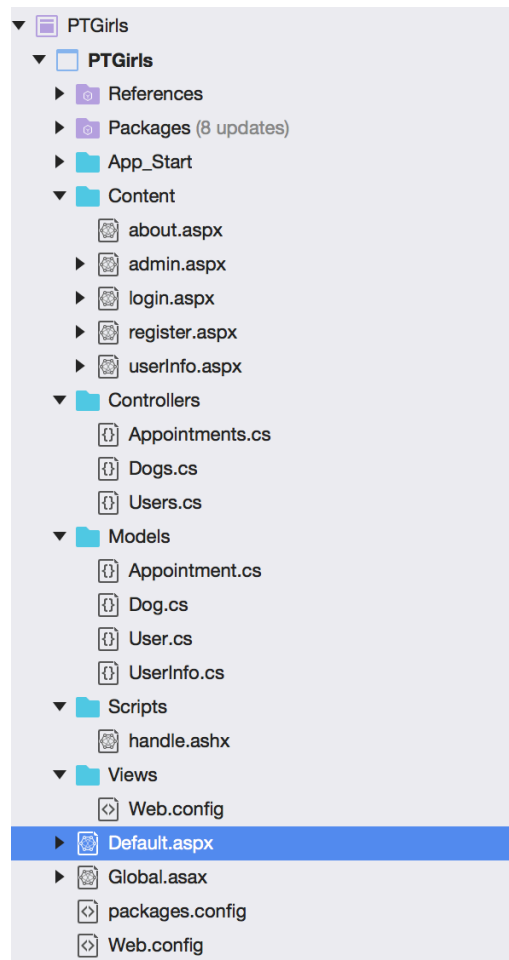

Figure 13: Website Structure till Week10 Sprint
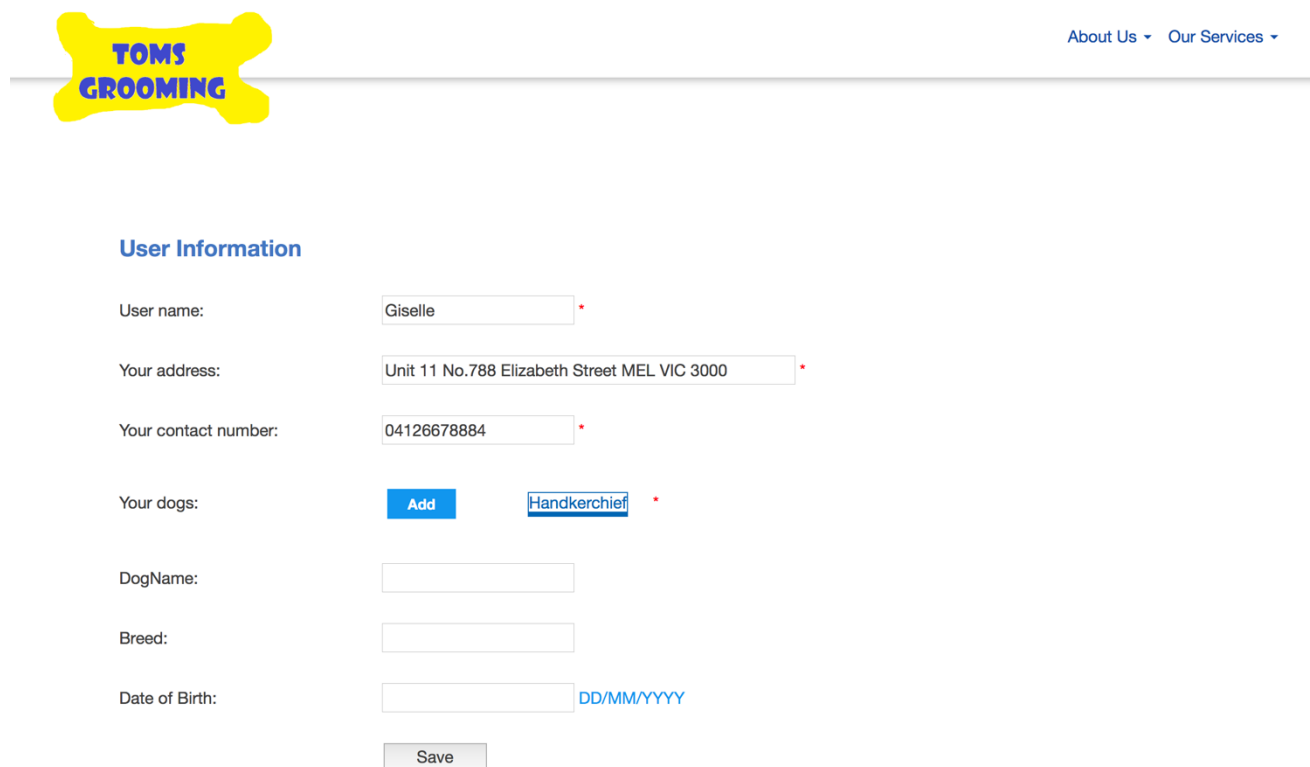
5) Completed features lists

Web Application	
User login function	√
Profile modification	√
Appointments function	√
Add, edit, cancel, review available appointments	
Select a dog from personal records	√
Choose service content about grooming option and price tags	√

Special requirements field	√
Confirmation sending	√
Auto reminder after confirmation	
Admin function	
Database	√

Table 34: Completed Features List till Week10

6) Completed Interfaces

Multiple interfaces have been accomplished till this sprint, including profile interface, appointment interface and review interface.

Figure 14: Profile Interface

Figure 15: Appointment Interface

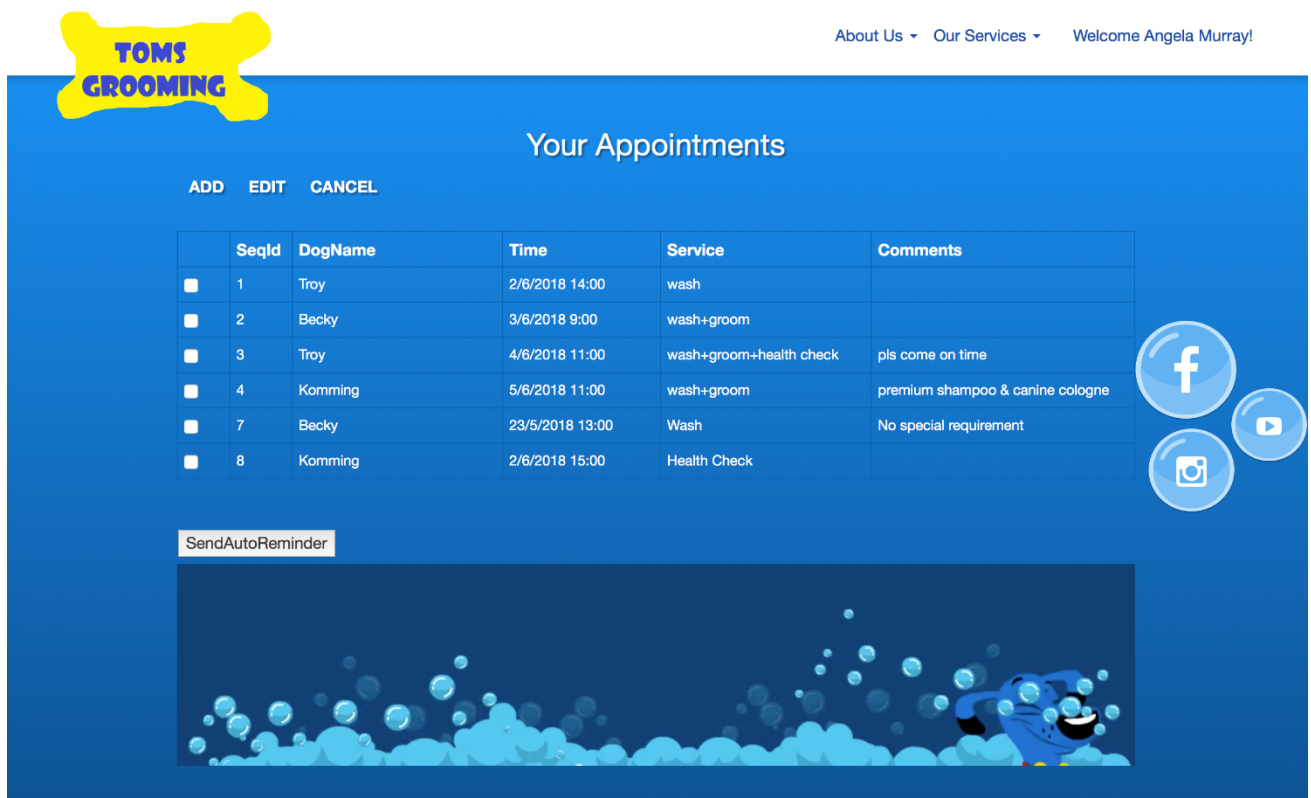Figure 16: Review Interface before Booking

Figure 17: Review Interface after Booking

Figure 18: confirm letter

4.2.3 Risk monitoring and control

As is predicted in section 3.3, some of the risks have occurred in this sprint and may affect the accomplishment of this project even with planned response.

Firstly, at the very beginning of this sprint, product owner refined several detail requirements. He wanted to add the function of automatically sending a confirm letter to users after they have successfully booked an appointment as well as building a BBS to enable users to have online discuss with one another that is listed in out-of- scope before. Since this project has so limited a time, the refining of scope and requirement would bring great burden to project team and may affect the punctuation of the project. In this case, with the further discussion about the feasibility of these requirement and the key goals in this project, these requirements have been simplified as adding a review page after booking and a confirm button to double check the information of booked appointment and BBS has been removed from the scope again considering the constraints in time.

It is common that a product always having various technical issues during developing stage and it is the same in this project. We faced some new development problems like unable to write into database, unable to customize services by users. To solve these problems, we tried several solutions and asked for professor for help. After lots of trials and tests, we finally fixed the problem with database. And for customized services, we pack all services provided into packs so that users can choose the pack they need instead. Overall, even though we still faced some technical issues this week, but we have successfully solved them now.

Besides, because fierce market competition, our sponsor withdrew capital in this sprint, which is the biggest challenge for this project. Fortunately, we have planned for this phenomenon and the product owner is looking for a new sponsor so that insufficient fund would not impede our delivery.

Because of the recruitment of UI designers, the interface got good reviews in this sprint review, and the probability of disgusting UI design dropped a lot.

Lastly, according to the market survey last week and further exploration in this industry this week, the solutions to improve our competitiveness is to reduce the price and qualify the quality of our services because most competitors charge high fee for home grooming services. Additionally, the service areas are focus on district with numbers of dogs but have not be covered by any grooming services. By doing this, our product can occupy the market soon and accumulate our first customers.

As the project progresses, the probabilities of risks have been changed because of responses have done and the impacts also fluctuated. Therefore, refined new tables of risks have been updated in section.

Appendix I – Artefacts for Week 9 Sprint

Section 1: Meeting Minutes

1.1 Sprint Planning Meeting Minutes

Mobile Dog Grooming Business

Meeting Title:	Spring Planning Meeting	Chairman:	Product Owner: Zhang
Date:	29 April 2018	Scribe:	Ailin Zhang
Time:	1:00pm to 3:00pm		
Location:	Melbourne University – Old Engineering Building meeting room G79		
Meeting Files:	Project plan, requirements, user stories		

Name	Attended	Did Not Attend
Ailin Zhang	✓	
Silan Li	✓	
Yinghua Shi	✓	
Yuke Xie	✓	

Discussion Items:

Introduce the business in general

Since this is the first Sprint of the project, it is necessary to ensure each member being familiar with the project that they are going to deliver. This project is to implement a web system for Mobile Grooming Business. In recent society, many families raise dogs as their pets. Therefore, the demand of dog grooming service is high, as well as its abundant benefit. Our business is to provide an on-door dog grooming service with a mobile dog grooming car and an online appointment system. The customer can arrange an appointment through the web appointment system, choosing a dog, the grooming time and other features. Then the groomer will come to their house punctually, providing the agreed services.

Explain user requirements

All user requirements are detailed stated in the Scope section of 2.2. Here is a further explanation in order to make sure everyone understanding the requirements thoroughly. In

this part, the product owner Ailin explained each feature that is going to deliver in detail using a hypothetical customer as example.

Decide what can be done in this Sprint

In the open forum process, all team members engaged in the discussion of the Sprint Goal, which is one or two sentences describing what we will accomplish in this Sprint. Yuke proposed that the main task is to deliver the database in this Sprint, for the reason that the database is the fundamental portion of the system. And then, Yinghua said that we are also able to build the main interface of login system for the front end. Ailin doubted if we can accomplish these features in this week. Silan stated that these two features are separated and can be delivered at the same time. At last, the team came out the Sprint Goal that is detailed stated in the following section for Spring Planning Meeting Outcomes.

Identify tasks to be completed in the Sprint

During the open forum, each member addressed her opinion of the tasks that is added to the Sprint Backlog. Silan stated that we can pick items from the Product Backlog. Ailin proposed that the items of Product Backlog can be altered into more detailed ones in Sprint Backlog. Yinghua said that we can think about it from two portions. Yuke agreed with Yinghua, addressed that the two parts are the interface of website and the database portion. According to the discussion along with the Sprint Goal, the team picked several User Stories add to this week's Sprint Backlog, which is presented in detail at the section for Sprint Planning Meeting Outcomes.

Decompose the items of Sprint Backlog into tasks

In the open forum process, all team members have contribution to the discussion of the task decomposition. Yinghua proposed that we can breakdown the tasks according to the complexity of completion. Then, Ailin suggested that we can score each task in this way. Yuke agreed that we can then assign the tasks to each member. Silan said that we can therefore use this as a detailed plan for this Sprint. The detailed decomposition of the tasks for this Sprint is presented in the section of Low Level Task Decomposition.

1.2 Sprint Review Meeting Minutes

Mobile Dog Grooming Business

Meeting Title:	Spring Review Meeting	Chairman:	Developer Shi
Date:	5 May 2018	Scribe:	Silan Li
Time:	10:00am to 12:00pm		
Location:	Melbourne University -- Kwong Lee Dow Building Q219 Lecture Theatre		
Meeting Files:	Sprint Review Agenda, sprint planning outcomes		

Name	Attended	Did Not Attend
Ailin Zhang	✓	
Silan Li	✓	
Yinghua Shi	✓	
Yuke Xie	✓	
Meeting purpose	Review the released product, inspect the increment Product Backlog and modify the future Sprint	

Discussion Items:

Product Backlog's status

In the demo of the released function, it showed the initial version of the product. According to the definition of Product Backlog, version 1.0 only realized the requirement of User Story 1. For now, it only allowed users to register and log into the website.

Product Increment analysis

Since the released product is the initial version, there have been no increment part added yet

Business condition analysis

In the discussion section, the management layer talked about the key occurrences. As the develop team leader introduced, no big problems occurred during the development procedure. Then the Chief Finance Officer (CFO) claimed that they have raised money successfully, and the financial problem is solved. At last, Chief marketing officer (CMO) pointed out that the market condition is still intense, there are many matured mobile websites already existing.

New Product Backlog
After the discussion of the business condition, the managers all agreed that there is no necessary to make huge change on the plans, since the condition has not changed a lot. When they saw the initial product, they all think the interface can be proved. The UI design can be outsourced.
Velocity analysis
There is no big problem during the development process as the develop team leader said. It is approached smoothly and the development speed is almost the same as the ideal velocity.
Next meeting date
12 May 2018

1.3 Sprint Retrospective Meeting Minutes

<u>Mobile Dog Grooming Business</u>

Meeting Title:	Sprint Retrospective	Chairman:	Product Owner: Zhang
Date:	5 May 2018	Scribe:	Yuke Xie
Time:	1:30 pm – 2:30 pm		
Location:	Melbourne University -- Kwong Lee Dow Building Q219 Lecture Theatre		
Meeting Files:	Sprint Retrospective Agenda, sprint planning outcomes, sprint review outcomes		

Name	Attended	Did Not Attend
Ailin Zhang	✓	
Silan Li	✓	
Yinghua Shi	✓	
Yuke Xie	✓	
Meeting Purpose:	Looking back at the sprint has just finished and examine how the team functioned, identify what worked well and what can be improved to make the process more efficient.	

Discussion Items:

Call to order

Every member attends the meeting on time and scrum master Silan Li call to order.

Summary of sprint activities

Sprint 1 of the *mobile dog grooming business* project delivers the basic construction of all the databases and the functionality of user registration and login.

The sprint was planned mainly around design and build the database of user and relevant functions in user registration and login with checking for the uniqueness of username.

Our achievements include the establishment of four database (user, user information, pet, appointment), the construction of user registration interface and registration exceptions solving. All of them has completed 9 points in user stories.

The team comprised of product owner Ailin Zhang, scrum master Silan Li, developer Yinghua Shi and Yuke Xie.

This sprint is the basis of this project as it established the databases required for this project and all the further functions are relying on what we have done in this week.

What did we deliver in this sprint

What we planned	What we completed
1.1 Build a user database (users' emails and passwords)	1.1 user information database (email/passwords)
2.1 Add entries into the users' database (name/ home address/ multiple contact phone numbers)	2.1 user database (name/ home address/ multiple contact phone numbers)
2.2 Build a pet database (name/ breed/ birthday)	2.6 pet database (owner/name/ breed/ birthday)
1.2 Set 'register' system	1.2 user registration function
1.4 Add 'log in' system	1.4 user login function
1.3 Add error 'register' (duplicate username/ email)	1.3 duplication error pop out in registration function
1.5 Add error 'log in' (username/email not match)	1.5 login mismatching error pop out
	3.1 appointment database (time/ user/ dog/ service/ special requirements)

Table 1: Current deliveries

In this sprint, we finished all expected works and an additional work of building appointment database.
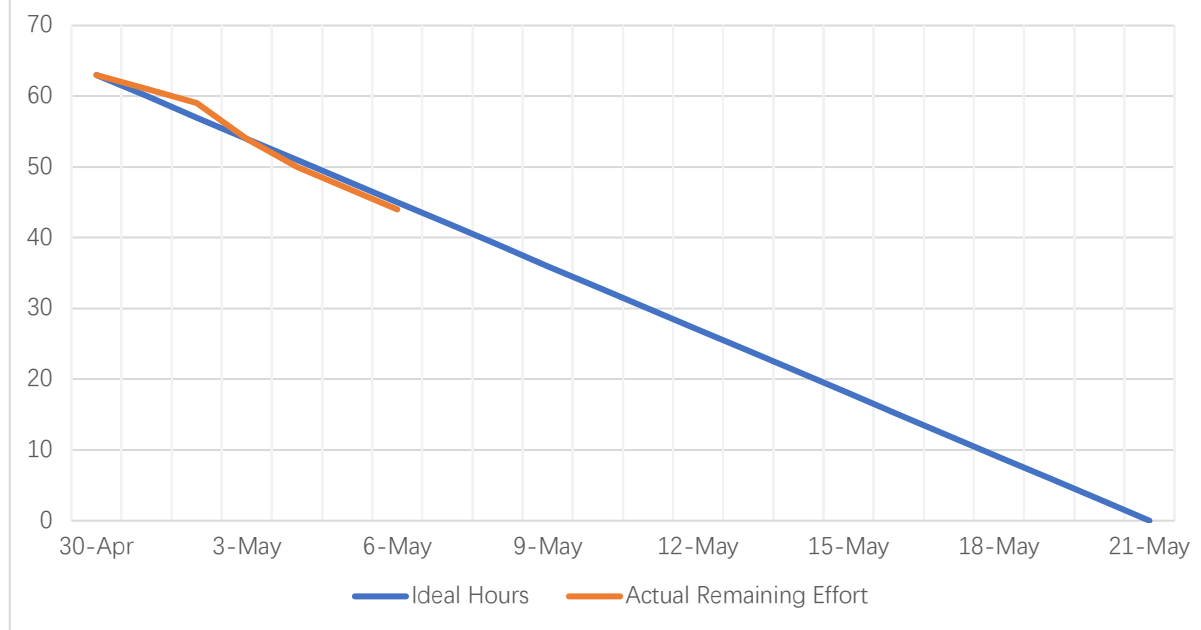
Sprint burndown

Figure 1: Current burndown chart

From the new comparison burndown chart, it is obvious that tasks are finished in advance due to efficient planning of the project. Whereas, at the beginning of this project, unfamiliar with software make the tasks are undertaken in an slower pace, but after change to another software the development is much better than expected then.

What were the impediments that we faced

In product aspect:

Developer Yuke Xie indicated that the constraints in lack of staff and time is the most serious problem we faced. Only two developers in this team and three weeks for all the constructions of new system, which would result in project could not completed punctually.

Developer Yinghua Shi pointed out that the design of user interface is a tough task for developers without specialized knowledge. It cost most of the time this sprint to finish the designing work of the interface.

At the very beginning of this sprint, the project has not finished as required because of developers not familiar with advanced software and developing languages used. But we changed to another elementary software considering the duration of this project, and everything went for a better way. The consequence of this change would be this system could only implement the basic functions, but some fancy appearance and functions are unable to achieve.

In business aspect:

The result of market survey tells that there are various competitors provide similar or even more services than us. Fierce market competition requires more functionary and humanized system as well as more effective promotion.

What went well

At the beginning of the project, we made a comprehensive analysis of this project and clarified almost details and tasks required. Also, the roles and responsibilities of each team member and scheduled our project in a feasible way. In addition, we analyzed potential risks in this project, some of which have occurred in this sprint.

Because of the overall analysis of the project, most of the impediments we faced have been expected and due to preplanned owners and responses, we removed them successfully. And for the new impediments, we faced them positively and figured out effective approach to reduce their impacts.

Every member is actively engaged in this project and attend all the meetings required. Everyone put forward their views and issues during meetings to make our process more efficient and effective.

Lastly, technically, scientific design of web and database structures makes the process more efficient. And all the tasks and functions required in this sprint has been accomplished successfully, the demo of deliveries functions well.

What can we do better

We have done a good work so far, to make our project better, every member can spend more time in it as average only 3 hours a day per person is requested in this sprint so that some of the design is not artistic nor efficient enough.

As for some tasks that we are not qualified to do, a third-party can be hired to assist us in achieving the sprint goals.

Lessons learnt, action items and closing comments

In next stage, we are supposed to completed the main function of this system and is the hardest tasks in this project. In this case, all members should get more involved in our project and spend more time in it to face potential functionality issues. Meanwhile, reflecting problems to supervisors and scrum master in time to control potential risks.

A third-party UI design team could be added into our team if necessary since developers have no professional skills in designing and the intense competition in market. Moreover, because of strong competitors, a more detailed market survey of the strength and weakness of them is necessary for us to occupy more shares.

Relying on current developing pace, the project planning is feasible for this team and there is no need for any changes to the plan. It should be able to finish tasks in next sprint punctually.

Because of new loan from sponsors, there is no resource shortage expect personnel.

Section 2: Timesheets Per Person for Week 9 Sprint

Timesheet 1 for Week 9				
Name	Yuke Xie	**Position**	Database Administrator	
Content		**Start Time**	**End Time**	**Working hours**
Meeting (Sprint Planning)		29/04/2018 1:00 pm	29/04/2018 3:00 pm	2
Build a user database (users' emails and passwords)		30/04/2018 2:00 pm	30/04/2018 3:00 pm	1
Add entries into the users' database (name/ home address/ multiple contact phone numbers)		30/04/2018 4:00 pm	30/04/2018 5:00 pm	1
Meeting (Sprint Review)		05/05/2018 10:00 am	05/05/2018 12:00 pm	2
Meeting (Sprint retrospective)		05/05/2018 1:30 pm	05/05/2018 2:30 pm	1

Table 1: Timesheet 1

Timesheet 2 for Week 9				
Name	Silan Li	**Position**	Database Administrator	
Content		**Start Time**	**End Time**	**Working hours**
Meeting (Sprint Planning)		29/04/2018 1:00 pm	29/04/2018 3:00 pm	2
Build a pet database (name/ breed/ birthday)		01/05/2018 11:00 am	01/05/2018 12:00 pm	1
Build an appointment database (time/ user/ dog/ service/ special requirements)		01/05/2018 5:00 pm	01/05/2018 6:00 pm	1
Meeting (Sprint Review)		05/05/2018 10:00 am	05/05/2018 12:00 pm	2
Meeting (Sprint retrospective)		05/05/2018 1:30 pm	05/05/2018 2:30 pm	1

Table 2: Timesheet 2

Timesheet 3 for Week 9				
Name	Yinghua Shi	**Position**	Front-End Programmer	
Content		**Start Time**	**End Time**	**Working hours**
Meeting (Sprint Planning)		29/04/2018 1:00 pm	29/04/2018 3:00 pm	2
Set 'register' system		02/05/2018 4:00 pm	02/05/2018 9:00 pm	5
Add 'log in' system		03/05/2018 12:00 pm	03/05/2018 4:00 pm	4
Meeting (Sprint Review)		05/05/2018 10:00 am	05/05/2018 12:00 am	2
Meeting (Sprint retrospective)		05/05/2018 1:30 pm	05/05/2018 2:30 pm	1

Table 3: Timesheet 3

Timesheet 4 for Week 9				
Name	Ailin Zhang	**Position**	Front-End Programmer	
Content		**Start Time**	**End Time**	**Working hours**
Sprint Planning Meeting		29/04/2018 1:00 pm	29/04/2018 3:00 pm	3
Add error 'log in' (username/email not match)		03/05/2018 3:00 pm	03/05/2018 6:00 pm	3
Add error 'register' (prevent duplicate username/ email)		04/05/2018 12:00 pm	04/05/2018 3:00 pm	3
Meeting (Sprint Review)		05/05/2018 10:00 am	05/05/2018 12:00 am	2
Meeting (Sprint retrospective)		05/05/2018 1:30 pm	05/05/2018 2:30 pm	1

Table 4: Timesheet 4

Appendix II – Artefacts for Week 10 Sprint

Section 1: Meeting Minutes

1.1 Sprint Planning Meeting Minutes

<div align="center">

<u>Mobile Dog Grooming Business</u>

</div>

Meeting Title:	Spring Planning Meeting	Chairman:	Product Owner: Zhang
Date:	6 May 2018	Scribe:	Ailin Zhang
Time:	13:00pm to 15:00pm		
Location:	Melbourne University – Old Engineering Building meeting room G79		
Meeting Files:	Project plan, requirements, user stories		

Name	Attended	Did Not Attend
Ailin Zhang	✓	
Silan Li	✓	
Yinghua Shi	✓	
Yuke Xie	✓	

Discussion Items: Sprint Goal; Sprint Backlog

Briefly summarize the work done in last sprint

The Product Owner Zhang summarized that all members did a great job in last sprint. The team have successfully implemented the register and login functions, including the website interface, related database, and the error messages when entering an invalid input. Also, the team completed a dog database, a user details database and a database storing appointment details, which are over-done than the Sprint Backlog planned.

Refine the Product Backlog

Tom decided to add some features into the product. One is to send a confirm letter to the user at the time when completing an appointment booking. In the confirm letter, the details of the appointment are presented including the time and required services. The other added user requirement is a BBS platform, which is a social network to bound the community.

Another reason of adding the social network feature, as the Product Owner Zhang mentioned, is that our product need a competitive function in order to get a slice of the fiercely competitive market.

Decide what can be done in this Sprint

Under the direction of the Scrum Master, Li, all members participate in the discussion during the open forum. Yinghua Shi proposed that with the foundation of the user and dog databases built in the last Sprint, the team can complete profile modification function in this Sprint. And then, Ailin Zhang supplemented that we can also implement the appointment interface because the appointment database is also built in the first Sprint. Yuke Xie agreed and reminded the team implementing the new features including the confirm letter and social network. Then Silan Li summarized all thoughts, and the team carried out a Sprint Goal, which is presented in the section of Spring Planning Meeting Outcomes.

Identify tasks to be completed in the Sprint

In the open forum process, every member addressed her opinion of the tasks to be added to the Sprint Backlog. The team decided to pick the accomplishable items from the Refined Product Backlog. It is the edited product backlog referring to the works have been done in the last sprint. Yuke Xie proposed that considering of the Sprint Goal, the main tasks for this sprint are profile modification and booking appointment. Ailin Zhang agreed and stated that we can pick the User Story 2 and 3 from the Product Backlog. Yinghua Shi addressed that these stories can be decomposed into low level tasks according to the sub-features. At last, Silan Li summed up and the team created a Sprint Backlog for week10 sprint. The Sprint Backlog can be seen in the section of Spring Planning Meeting Outcomes.

Decompose the items of Sprint Backlog into tasks

During the open forum process, each member involved in the discussion for the Sprint Backlog decomposition. Silan Li said that we have to assign these tasks with story points according to the difficulty of its completing. Ailin Zhang stated that we can also consider the time its needed to accomplish. Then, Yinghua proposed that we can assign tasks to each member with approximately equal hours to complete. Silan agreed and addressed that the appointment function needs most time to complete. The complete Task Breakdown table can be seen in the section of Sprint Meeting Outcomes.

1.2 Sprint Review Meeting Minutes

Mobile Dog Grooming Business

Meeting Title:	Spring Review Meeting	**Chairman:**	Developer Shi
Date:	12 May 2018	**Scribe:**	Silan Li
Time:	10:00am to 12:00pm		
Location:	Melbourne University -- Kwong Lee Dow Building Q219 Lecture Theatre		
Meeting Files:	Sprint Review Agenda, sprint planning outcomes		

Name	Attended	Did Not Attend
Ailin Zhang	✓	
Silan Li	✓	
Yinghua Shi	✓	
Yuke Xie	✓	

Meeting purpose	Review the released product, inspect the increment Product Backlog and modify the future Sprint

Discussion Items:

Product Backlog's status

In a demo of the released function, it showed the second version of the product. According to the definition of Product Backlog, version 2.0 has realized most of requirements. It allowed users to register and log into the website. The users can now edit their profile and make appointments. On the user home page, they can review their appointment. However, the function for editing or cancelling appointment has not been finished yet.

Product Increment analysis

UI design and confirmation letter function has been finished and presented, while the development team had no time to build the BBS platform this week.

UI Design used blue as the website background color. The buttons are designed in cartoon style. The whole view of the website looks cute and corresponds to the impression of dog grooming service. All the managers are satisfied with the interface.

The confirm letter fully satisfied the requirement of help users to concern that they have booked successfully. It can avoid the booking crash in the testing. However, the manager thought the

design is not user-friendly. There is one more step for the user to check the mail box. They thought this function can be proved in the next week.

BBS platform has not been designed yet. After meeting, the managers insist that this is an compulsory function in such a competitive market.

Business condition analysis

In the discussion section, the management talked about key issues.

Firstly, the leader of the development team has mentioned some problems occurred during the testing procedure. The storage of user's information can't be read successfully at the beginning. It took them a lot of time to fix this problem. The actual developing time is much longer than estimated. The delivery time may be delayed.

Then the Chief Finance Officer (CFO) claimed that some sponsors have left during the project. It is urgent to look for some new sponsors.

At last, Chief marketing officer (CMO) pointed out that the market condition has become more and more fierce. The company must change its marketing strategy to approach the customers. Some suggestions were claimed. For example, providing lower prices and higher quality services; giving discounts from time to time; increasing the services, such as hanging dog or selling dog food.

New Product Backlog

1. Replace the confirm letter function with a confirm button
2. Add social network platforms to create a user-friendly website.

Velocity analysis

Because of some serious problems occurred during the development procedure, the whole speed of the project became slow. The develop team had to spend a lot of time on fixing problems during testing, which made they can't have enough time to implement new functions. The velocity calculated this week is slower than the estimated speed.

Next meeting date

19 May 2018

1.3 Sprint Review Meeting Minutes

Mobile Dog Grooming Business

Meeting Title:	Sprint Retrospective	Chairman:	Product Owner: Zhang
Date:	12 May 2018	Scribe:	Yuke Xie
Location:	Kwong Lee Dow Building		
Meeting Files:	Sprint Retrospective Agenda, sprint planning outcomes, sprint review outcomes		

Name	Attended	Did Not Attend
Ailin Zhang	✓	
Silan Li	✓	
Yinghua Shi	✓	
Yuke Xie	✓	

Meeting Purpose:	Focusing on last sprint, supervising how the team functioned, exam the outcomes this week and identify what worked well and what can be improved in the future.

Discussion Items:

Call to order

Every member attends the meeting on time and scrum master Silan Li call to order.

Summary of sprint activities

Sprint 2 of the *mobile dog grooming business* project delivered main functions of online appointment system.

The sprint was planned mainly around complete the construction of booking appointment function as well as personal information display (including dog information and personal information editing in front end and back stage – database).

Our achievements this week are: enabling users to book appointments online by selecting the appointment date, their dog and service packs; displaying appointments information on the home page of users plus cancel appointments; checking and editing personal and dog information. All these accomplishments contained 9 stories.

The team comprised of product owner Ailan Zhang, scrum master Silan Li, developer Yinghua Shi and Yuke Xie.

This sprint is the main part in this project as it implemented the main functions required for this project but is partly completed and need to be improved next week.

What did we deliver in this sprint

What we planned	What we completed
2.3 Design and deliver an interface to display user profile.	2.3 Design and deliver an interface to display user profile.
2.4 Link the interface with user database built in last sprint to allow users to modify their profile details.	2.4 Link the interface with user database built in last sprint
2.5 Ensure the dog information cannot be null for each user.	3.4 allow users to modify their profile details.
3.1 Design and implement appointment interface.	3.5 Ensure the dog information cannot be null for each user.
3.2 Link the appointment interface with multiple related databases, allow users to make a customized appointment for a chosen dog.	3.1 Design and implement appointment interface.
3.3 Implement a review function after booking an appointment.	3.2 Link the appointment interface with appointment, user information, dog databases.
3.4 Send a confirm letter including booking details to user after a successful booking via email.	3.2 Allow users to make a customized appointment for a chosen dog and a particular service pack
	3.3 Implement a review function after booking an appointment.
	3.4 Send a confirm letter including booking details to user after a successful booking via email.

In this sprint, we finished all expected works in good quality.
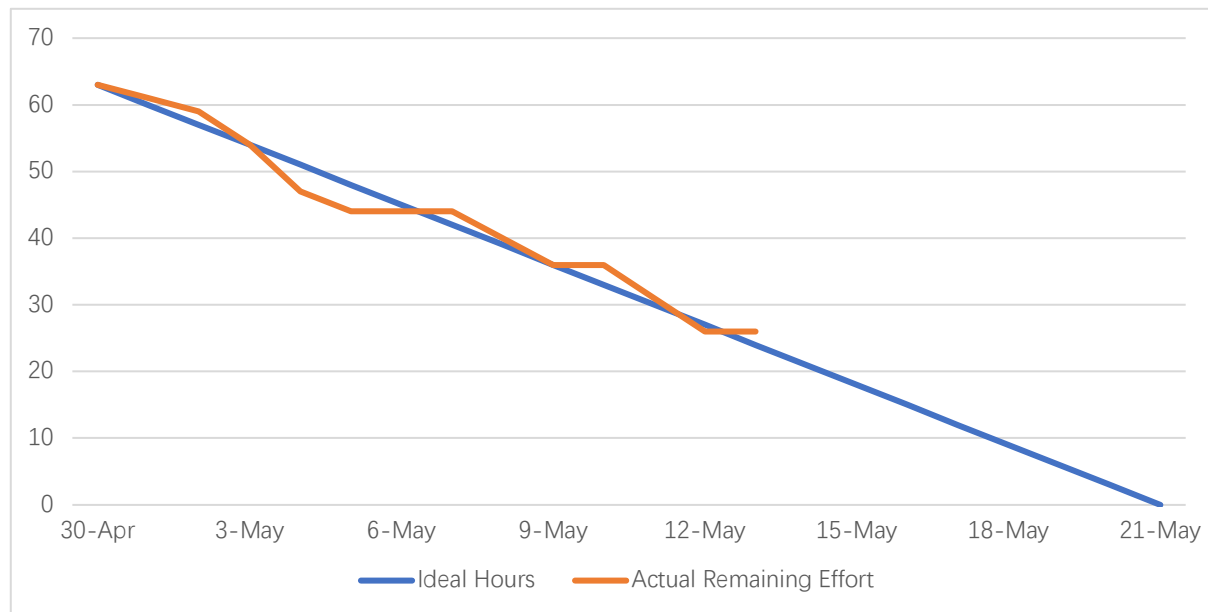
Sprint burndown

Figure 1: Current burndown chart

From the new comparison burndown chart, it is obvious that tasks this week are not undertaken as expected. This is because of tasks this week is of highest difficulty among this project and are main functions that need cyclic test for its functionality. But fortunately, with effort of the entire team, required tasks have all been accomplished in this sprint even experiences lots of issues.

What were the impediments that we faced

In product aspect:

The requirement and plan has been changed during sprint planning meeting this week, and some new requirement has been added into this project. However, this project is supposed to be accomplished next week and we have not start doing the functionality part of site administrators, which means we might have no time to finish the additional tasks or the project must be delayed.

Developer Yinghua Shi indicated that there are several unexpected errors when testing such as it is able to read user data but cannot write. And this problem been fixed after some trials. The time spent in solving these problems are much more than expected, which resulted in the procedure this sprint is not undertaken as efficient as planned.

New function automatically sending confirm letter to users has been finished, but in practice, it is found that not user friendly as users can only check the information of appointment via email or review it after booking, which would influence the user experience in the future. It is better to change to a confirm page after bookings.

In business aspect:

On account of the market survey's result last week, the sponsor withdrew capital this sprint, which means there is no economy support any more and the product needs to be delivered next week.

What went well

Even though several impediments faced this sprint, but all technical problems have been solved eventually and finished all tasks as planned. During this process every member is fully engaged in it after last retrospective, and members are voluntary to spend more time in this project so that even this is the most difficult part in this project, the process still been accomplished nicely and obtained reviews in sprint review meeting.

Although sponsor withdrew capital currently, but because of good risk management, a new sponsor is on the way, this would not affect much in project.

The new UI designer recruited contribute a lot in this sprint and make the interface more pretty with vivid cartoon dogs. This can increase the competitiveness in market.

Facing the fierce market competition, we have pointed out some strategies to deal with the situation, and it seems would contribute lot.

What can we do better

Every member not only concerns on their own works but also helped one another in next stage since it is our last sprint in this project, and we have to ensure everything goes well. Predicting all possible risks in delivery and have a preplanned response for all of them and testing all functions more times by all members before delivery.

Product owner is responsible for looking for new sponsor and keep in touch with them so that no unexpected issues would happen before delivery any more.

Lessons learnt, action items and closing comments

In this week, we did great works of all required tasks, which proved this team is qualified and of capability and we are confident to accomplish this project successfully. Moreover, the immediate response and few influences after issues occurred told us that we have made good risk predictions and management.

In next week, we are supposed to complete all the rest part in this system and finish all testing stages then deliver our product. The lesson learnt in this sprint told us that we can conquer with the effort from all team members.

As for new functions added this week, we decide to cut them down based the limited time left in this project. And the automatic sending of confirm letter would be changed into a review page after booking with a confirm button to double check all appointment information.

Section 2: Timesheets Per Person for Week 10 Sprint

Timesheet 1 for Week 10				
Name	Yuke Xie	**Position**	Database Administrator	
Content		**S tart Time**	**End Time**	**Working hours**
Meeting (Sprint Planning)		06/05/2018 1:00 pm	06/05/2018 3:00 pm	2
Link the interface with the profile database built in the last sprint.		07/05/2018 5:00 pm	07/05/2018 6:00 pm	1
Allow the user modifying his profile details.		08/05/2018 2:00 pm	08/05/2018 4:00 pm	2
Ensure the dog information of a profile must not be null.		08/05/2018 4:00 pm	08/05/2018 5:00 pm	2
Meeting (Sprint Review)		12/05/2018 10:00 am	12/05/2018 12:00 pm	2
Meeting (Sprint retrospective)		12/05/2018 1:30 pm	12/05/2018 2:30 pm	1

Table 1: Timesheet 1

Timesheet 2 for Week 10				
Name	Silan Li	**Position**	Database Administrator	
Content		**Start Time**	**End Time**	**Working hours**
Meeting (Sprint Planning)		07/05/2018 1:00 pm	07/05/2018 3:00 pm	2
Link the appointment interface with the related databases.		09/05/2018 1:00 am	09/05/2018 3:00 pm	2
Allow the users making a customized appointment for a chosen dog including choosing service with price.		09/05/2018 3:00 pm	09/05/2018 6:00 pm	3
Meeting (Sprint Review)		12/05/2018 10:00 am	12/05/2018 12:00 am	2
Meeting (Sprint retrospective)		12/05/2018 1:30 pm	12/05/2018 2:30 pm	1

Table 2: Timesheet 2

Timesheet 3 for Week 10			
Name	Yinghua Shi	**Position**	Front-End Programmer
Content		**Start Time**	**End Time**	**Working hours**
Meeting (Sprint Planning)	06/05/2018 1:00 pm	06/05/2018 3:00 pm	2
Design and deliver the interface for user profile.	07/05/2018 2:00 pm	07/05/2018 4:00 pm	2
Design and implement appointment interface.	09/05/2018 10:00 am	09/05/2018 1:00 pm	3
Meeting (Sprint Review)	12/05/2018 10:00 am	12/05/2018 12:00 pm	2
Meeting (Sprint retrospective)	12/05/2018 1:30 pm	12/05/2018 2:30 pm	1

Table 3: Timesheet 3

Timesheet 4 for Week 10				
Name	Ailin Zhang	**Position**	Front-End Programmer	
Content		**Start Time**	**End Time**	**Working hours**
Meeting (Sprint Planning)		06/05/2018 1:00 pm	06/05/2018 3:00 pm	2
Implement a review function after booking an appointment.		11/05/2018 2:00 pm	11/05/2018 4:00 pm	2
Deliver a confirm letter including the booking details to user's email address after a successful booking.		11/05/2018 4:00 pm	11/05/2018 7:00 pm	3
Meeting (Sprint Review)		12/05/2018 10:00 am	12/05/2018 12:00 pm	2
Meeting (Sprint retrospective)		12/05/2018 1:30 pm	12/05/2018 2:30 pm	1

Table 4: Timesheet 4