

SWEN90016

Software Processes & Management

Assignment 2
Project Management Plan
Version 1.1

Group ER1 Team 2

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Executive Summary

The purpose of this project is to develop a website that allows the general public to make appointments with their preferred healthcare professionals at a healthcare center. The owner of the healthcare center wants to make the current appointment system more efficient. She wants to implement a web-based system to manage appointment booking, where customers are to visit the website to make their appointment/s with their preferred healthcare professional themselves. In addition to an improvement in efficiency, this system will also expose the healthcare center business to a myriad of customers due to its online presence. This, in turn, can drive greater profit margins, and subsequently, better opportunities for the business to expand and reach new heights.

The project team consists of four students from the University of Melbourne who are currently in their penultimate year of their Masters in Information Technology. The team first outlines essential information about the project. Key stakeholders such as the owner of the healthcare center, development team, and the end users were identified. Features of the final product that is in or out of the scope of the project were also defined. The project will be executed using the Agile-SCRUM software development lifecycle model such that any changes to the project requirements can be quickly rectified such that there is a lesser chance that a wrong product will be developed. How the completed project will benefit the stakeholders were also documented. Constraints of the project were considered. Roles were assigned to the members of the team and communication plans were drafted. Risks of the project were identified, with how the project should respond/mitigate these risks considered. After much research and discussion, the web development platform WIX will be used to develop the product. The progress and evolution of the project will also be documented through weekly reviews and retrospectives.

The project is to be completed in 4 weeks and will incur an estimated cost of \$4800 AUD. In addition to this, a recurring cost of \$40 AUD per month will be paid to WIX to maintain the website at the completion of the product.

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Introduction

4.1 Purpose of document

This project management plan serves two primary purposes:

1. **Pre-implementation Analysis**

The scope, execution model, constraints, risks, and technology used are defined such that the project team is aware of what the project entails. The roles and responsibilities of each team member are also assigned and an effective communication protocol amongst team members is agreed upon.

2. **Manage and Review executed Processes**

The software lifecycle model utilised in this project is SCRUM. As such, all sprint reviews, retrospective, burndown charts, and milestones of the development process will be documented in this plan such that they can be referred to in order to improve the implementation of the succeeding sprint.

The goal of this project is to develop a website that allows patients of a healthcare center to make consultation appointments with their preferred healthcare professionals. The website will be constructed using WIX, a simple and intuitive web development tool that is able to effectively cater for the needs of this project.

4.2 Audience of document

The intended audience of this project management plan is the Alena, the primary stakeholder of the project, and the development team for this project.

4.3 Limitations of document

1. The document is created by a team with limited professional software development experience.
2. Contact between Alena and the team is limited to sprint reviews. If Alena comes up with inputs during a sprint she cannot immediately inform the team of her updated requirements.

3. Fixed template for document. No additions can be made outside of what the template accommodates for.
4. The user response to the planned functionalities of the online booking system along with the user interface is never recorded. Only Alena's requirements are known, nothing is known of the customer's comfort with the system.
5. Testing procedure/s for testing the functionality of the planned system are not documented. While testing is carried out in real life, this document has no record of it even though it could be helpful to future teams.

4.4 Evolution of document

Version	Created by	Date created	Location of document	Comments
1.0	Kai Soon	12th April 2019	Project team's shared Google Drive folder	Nil
1.1	Spike Lee	24th April 2019	Project team's shared Google Drive folder	Updated sections- <ul style="list-style-type: none"> ● 5.1 Key Stakeholders ● 6.1 Roles and Responsibilities ● 6.3 Risk Register ● 6.4 Technology ● 6.5 Project Planning. Added Section- <ul style="list-style-type: none"> ● 7.1 Project status ● Appendix I

Project Information

5.1 Key Stakeholders

Stakeholders	Classification	Detail Information
Alena	Internal	Alena, as the owner of the business is the primary stakeholder. She is most affected by effective functioning of the developed system, vis a vis both the benefits it offers and the risks it poses.
Development team	Internal	Effective implementation of the booking system is advantageous to the students developing it both in terms of practicing their skills in a real world setting and gained work experience.
Healthcare Professionals	External	Healthcare professionals do get impacted by the services offered by the booking system but it is simply meant to be augmented the services provided by them (by increasing ease of access) and not essential.
Customer	External	Customers are external stakeholders as they will be using the services provided by the appointment booking system but not dependent on it exclusively to use the services offered by the developed system.

5.2 Scope

5.2.1 What is in-scope?

1. Customer must be able to register for an account. The following are information required to register for an account.

- a. Name
 - b. Address
 - c. Contact number
 - d. Email address (required for login)
 - e. Initial password (required for login)
2. Customer must be able to edit account information.
3. Customers must be able to make a booking request with the following steps:
 - a. Select a healthcare professional type
 - b. A list will be displayed showing all health professional's name and their per-hour charge
 - c. Select preferred healthcare professional
 - d. A list of available consultation time between 0900-1700, 7 days a week will be displayed
 - e. Select preferred consult time
 - f. Customer can enter an optional message to be sent to the healthcare professional
4. When a customer has successfully made a booking, system must send an email to the corresponding healthcare professional with the following information:
 - a. Name
 - b. Contact number
 - c. Email address
 - d. Date of booking
 - e. Time of booking
 - f. Optional customer message
5. Customers must be able to view or cancel their appointment on the system.
 - a. If customer cancels their appointment, the healthcare professional will be notified by email with the following information in regards to the cancelled appointment:
 - i. Name
 - ii. Contact number
 - iii. Email address
 - iv. Date of booking
 - v. Time of booking
6. All information discussed above must be stored in a database
7. A super user must have a predefined and default email address, username, and password.
8. A super user (admin) must be able to do the following:
 - a. View the history of all booking requests

- b. Register healthcare professionals on the system with the following information:
 - i. Healthcare professional must be one of the following types: Podiatrist, Naturopath, Chiropractor
 - ii. Name of professional
 - iii. Email address of professional
 - iv. Charge per hour of professional

5.2.2 What is out-of-scope?

1. Health professional is unable to access the system to view or edit booking information
2. Super user will not be able to add additional healthcare professional types to the system.
3. The system wouldn't store personal health information of the customers who are being scheduled with the software.

5.3 Delivery approach / SDLC - Formal or Agile

We have chosen to use an AGILE model to develop the website. AGILE was chosen for the following reasons:

1. **Ability to deal with varying requirements**

Alena's business is ever growing. Over the course of development, she might realize problems/additional requirements that she has not yet listed during the first round of meetings. Using an AGILE model allows the business to quickly incorporate/alter features of the software to accommodate for the business growth during each sprint of the life-cycle.
2. **Reduces chance of developing a wrong product**

Incorporating continuous integration and rapid testing into the development process will allow us to address software development issues as they occur.

Agile development produces a working prototype after each sprint. As such, end-users are able to test the product and provide feedback to the development team, at which the development team is able to improve the product based on the feedback given. Problems identified and resolved swiftly, and this inhibits small problems from escalating into bigger problems.

5.4 Business Value (Financial & Non-Financial Benefits)

Alena

- **Business becomes more scalable**

Alena sees the project as a business that can be expanded to provide many different healthcare services other than the initial three healthcare services. The system makes it more feasible to achieve Alena's business goals. The current way of Alena managing the appointments alone will become increasingly infeasible as the business scales up.

- **Increase profitability**

The system improves customers' appointment booking experience significantly by reducing their waiting time. This improvement in customer experience will potentially attract more customers. In the long run, this increases the profits of the business.

- **Reduces workload and human errors**

The project will reduce Alena's workload as she will not have to manually enter appointments into the system, email customers a confirmation for a booked appointment, or register new customers in the system. This increases the efficiency of the business and reduces chances of scheduling errors.

- **Development cost savings**

Having students develop this web-based system, Alena will save the business a lot of money on software development because students developers are a lot cheaper than professional developers.

Development Team

- **Student developer gains hands-on experience**

Because the development team are still students, the opportunity to collaborate with real world stakeholders to develop a usable software will provide an excellent opportunity for them to exercise what they have learnt in university on a project with real outcomes.

Healthcare Professionals

- **Increases business exposure for healthcare professional**

Because customers are able to view all available healthcare professionals on the web system, the web system increases the exposure of these healthcare professionals and potentially increases their customer base. An increase in their customer base can in turn increase their income.

- **Improved scheduling efficiency**

In the previous system, healthcare professionals lost available booking time due to the time lost between Alena checking her messages and the customer calling in to cancel an appointment. The new system immediately makes those time slots available for booking and improves the healthcare professional's time usage and prevents inadvertent wastage of time.

Customer

- **Improved booking efficiency**

New customers are able to quickly register themselves on the system instead of having to wait for Alena to call them back to process their registration. Customers are also able to see the availability of each healthcare professional and are able to swiftly make/cancel a booking on the required time and day. Appointments do not have to be made through Alena. This also improves the customer's experience.

5.5 Constraints

- There is **limited budget** left for the software system development project since Alena has spent most of her budget on renovating and expanding her health care centre.
- The software development team has **little professional development experiences** and might not have the adequate knowledge and skills.
- The project has a **deadline** that has to be met which is on 25/05/2019)
- **Limited number of users** can concurrently use the system due to available essential technical resources (e.g. commercial database, cloud service).

Project Governance

6.1 Roles and Responsibilities

- Spike Lee is the Subject Matter Expert on the subject of web development

Name	Roles	Responsibilities
Kai Soon	Product owner	<ol style="list-style-type: none"> 1. Have a vision for the project and a solid understanding of the project's goals 2. Analyse the project requirements and identify user stories 3. Oversee the projects execution and intervene if needed 4. Accept or Reject outcomes of each sprint, providing feedback
Medha Mishra	Scrum Master	<ol style="list-style-type: none"> 1. Manage the development team being functional and productive 2. Tracking progress of each sprint and make adjustment to 3. Engage team members to facilitate a friendly and cohesive working environment 4. Convey feedback from product owner to the development team and vice versa.
Spike Lee	Subject Matter Expert	<ol style="list-style-type: none"> 1. Provide expertise opinions on the subject of web development 2. Help improve development team's skills

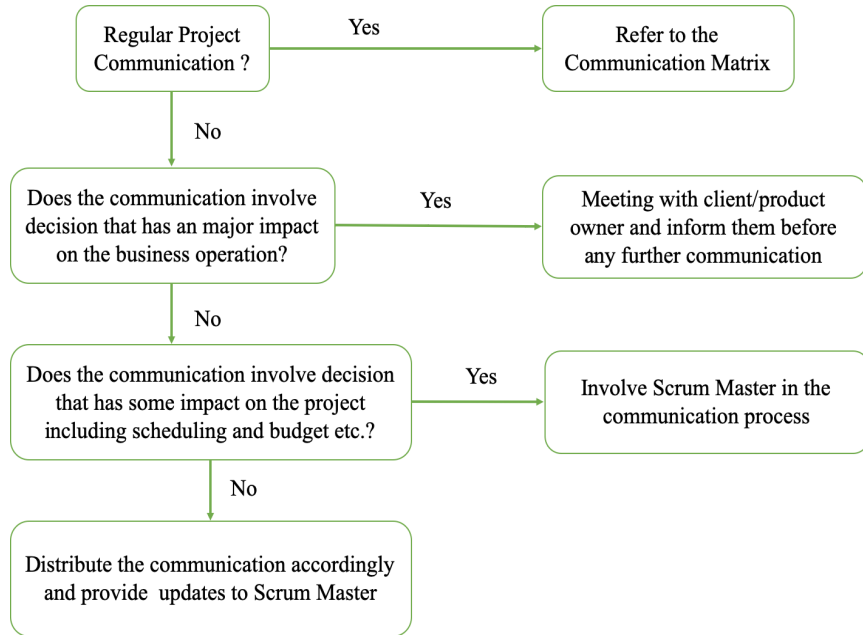
		3. Provide solution to technical obstacles
Ziping Chen	Development team member	<ol style="list-style-type: none"> 1. Have a solid understanding of the requirements and user stories 2. Commit to deliver the tasks allocated in each sprint in a timely manner 3. Response to requests from Scrum Master

6.2 Communication Plan

Communication Matrix

Stakeholders	Communication objectives	Format	Frequency	Owner	Importance
Product owner	<ol style="list-style-type: none"> 1. Gather or update requirements and feedbacks 2. Provide updates on project progress, key issues and milestones achieved 3. Budget approval 4. Sign-off all scope, approve prototype and final acceptance 	Regular meeting in person/ Formal report Project/ Expense statement	Weekly Monthly Monthly	Scrum Master	High
Development team members	<ol style="list-style-type: none"> 1. Identify resources required for each phase of the project 2. Tasks allocation and scheduling 3. Report key issues 	Regular meeting in person/ Kanban board/ Formal report	Weekly Daily Monthly	Scrum Master	High
Healthcare professionals	Requirement gathering and feedbacks on the prototype	One-to-one interview	Fortnightly	Scrum Master	Low
Patients	Gathering feedback on the prototype	One-to-one interview/ Focus group	Fortnightly Fortnightly	Scrum Master	Medium

Communication Flow Chart



Communication Escalation Plan

Priority	Definition	Decision for Authority	Timeframe for resolution
Priority 1	Major impacts to the project, if not resolved timely, there will be significant adverse impact to revenue and/or schedule.	Product owner	Within 1 business day
Priority 2	Medium impacts to the project, which may result in some adverse impact to revenue and/or schedule	Scrum Master	Within 2 business days.
Priority 3	Slight impact that may cause some minor scheduling difficulties but no impact on the business operation or revenue	Scrum Master	Within 5 business days.
Priority 4	Insignificant impact but there are better solutions to the issue	Scrum Master	Work continues and any suggestion will be submitted through project change control process

6.3 Risk Management

Risk Impact Analysis Table

Risk ID	Risk Type	Description	Probability	Impact (1-5)	Justification
1	Business	Data breach of sensitive patient information (address, phone number, etc)	40%	5	Such a data breach will have significant negative impact on the business and its reputation. The centre might also face legal issues like considerable compensation claims from patients.
2	Project	Development team member cannot commit time and effort to the project, and as such, may leave the project before its completion.	50%	3	The development team consists of students who have many other commitments like assignments and work. It's possible that they cannot devote enough time and effort in this project. The impact of this risk depends on the replicability of the members leaving/slacking.
3	Product	Admin cannot correct errors caused due to faulty system design.	40%	3	Admin can only view but not cancel or create appointments. If due to some internal error the software results in appointments being erroneously created/ cancelled, it cannot be remedied by a human admin. This will reduce the efficiency and performance of the booking system.
4	Product	The quality of this project may not meet the Alena's expectations, who might delay or deny the completion of the project.	50%	3	The project is delivered by inexperienced students without the supervision of professionals developers. The impact varies based on the extent to which the owner requires the project to be reworked.
5	Product	The online booking system is not available due to downtime on Wix, the	20%	4	If booking appointments replace phone call with the online booking

		underpinned infrastructure provider of the system.			system as the sole option, for the entire duration of downtime on Wix, no new appointments can be made. This can result in patients losing faith in the business.
6	Business	Alena experiences financial difficulty (e.g. unexpected expenses) and is unable to pay for resources required for the development.	20%	5	Alena has spent most of her budget on renovating the healthcare centre. If there is any other unexpected expenses incurred like compensation claims from patients, Alena will have to divert the funding for the project to other purposes and this project will be short of budget. Many essential resources will be unavailable.
7	Product	False bookings from adversaries who wants to sabotage the business. The system is vulnerable to attacks like false makings from adversaries who wants to sabotage the business such that genuine customers are unable to make appointments with them	10%	4	The current design does not include any verification or other security mechanism to protect the system from cyber attacks. The impact of a malicious spam of bookings would be disastrous as the genuine customers will not be able to book appointments, which will lead to loss of customers and income.
8	Business	The online booking system may be less appealing for customers that are not well acquainted with using the internet.	25%	4	Alena's clients are used to simply calling in to make appointments. They may regard being required to register and book appointments over an interface they may not necessarily be comfortable with. This may turn some of her older clientele, who are not as comfortable with the system, away from Alena's clinic.
9	Business	Too many customers try to login and book appointments concurrently, causing the server to overload.	20%	3	If at a sudden point of time a larger number of customers than the system is built to handle tries to use the service, it may result in some users being denied service. As a result Alena may lose business due to loss of faith by customers.

10	Project	There can be unexpected requirement changes over the course of the project.	60%	1	As the centre is expanding, it's likely that new features will be added to the requirements to accommodate new developments. This can delay the delivery of the project, cost more time and money.
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Risk Register Table

Risk ID	Trigger	Owner	Response	Resources Required
1	Security logs show a record of suspicious activity.	Development team	The risk can be mitigated by adding security mechanism into the system during the design stage.	Cyber security experts. Additional workload and costs.
2	Team members fails to complete scheduled tasks	Scrum Master	This may be avoided by actively communicating with team members and adjusting task schedules to accommodate their personal needs.	Management effort in team member engagement and scheduling.
3	A booking with human error has been processed by the system and Alena cannot amend it.	Development team	The risk can be avoided by changing the current design, adding the editing access to the admin account.	Additional workload and costs
4	Alena is continuously dissatisfied with the prototype	Scrum Master	More detailed feedback should be procured from the Alena at each sprint to avoid this risk. Modify future sprints based on feedback.	Time for sprint modification
5	The underpinned web-infrastructure provider, Wix, becomes not available without any early warnings.	Product owner	The response to this risk is to accept it. As Wix is a third-party independent web-infrastructure provider, the project team will have no control or influence over them. In the unlikely event of downtime of Wix, the product	None

			owner will have no choice but to wait until Wix provide solutions.	
6	A considerable amount of unexpected expenses can be observed during the project	Product owner/Development team	The impact of this risk can be mitigated in two ways. The product owner compensates for lacking in budget for the project (e.g. bank loans). The development team can substitute some development tools/technology for more cost effective solutions.	Financing solutions (e.g. Bank loans) Open-source software
7	Noticeable number of absences of booked appointments	Project owner	The risk can be mitigated to some extent by implementing some verification features in the design like id verification or ban list for patients didn't show up multiple times.	Additional workload and costs
8	Interviewed patients are displeased with the replacement of the booking system.	Product owner	The product owner will have to seek feedback from patients to adjust the features of the system to a more user-friendly outcome to mitigate this risk.	Interviews with patients.
9	Server response to requests slower than usual.	Development team	The development team will inform Alena about this risk before final acceptance and transfer the risk to her as it cannot be avoided at the development stage and she will be responsible for hiring a maintenance team to take care of that.	More computation resources. A maintenance team.
10	Project owner requests additional requirements of the project that is outside its initial scope	Scrum Master	Accept the risk. Review if these requirements are realistic and accept them if possible. The development team has adopted agile as the SDLC and is open to changes.	Depends on the features added. Additional workload and costs.

6.4 Technology

We have researched three different ways of building the software product. These include Wordpress, Wix or full-stack web development using node.js, HTML and other needed languages/libraries.

Wordpress provides a robust platform for web development and many community plugs to help build customizable features as needed. Full-stack web development would allow the team the greatest amount of customization of the product as we would be to implement whatever libraries we want or need. We would also have full-control of both the front-end and backend of the product.

However, we have decided to use Wix, a web-development platform to build the software product. Through our research, we have found that Wix offers a multitude of features such as a drag-and-drop website builder and an in-built database system among others. These features can be used to develop the product. Wix also provides free website host with their assigned URL.

One reason we have decided to use Wix is that its in-built features will allow our inexperienced team to efficiently build the product without having to spend time learning full-stack web development (node.js, bootstrap, javascript). If Alena decides to scale the product up, Wix's features will also allow us to extend or add extra functionality to the product easily without having to learn new frameworks or libraries. We have also decided against using Wordpress as to make use of the features, one would have to spend a significant amount of time learning and reviewing the plugins and platform. It is also required to purchase and host a domain as Wordpress does not provide free hosting.

6.5 Project Planning

Story Point Scale Explanation

We have decided as a group to use a fibonacci-like sequence 1, 2, 3, 5, 7. This forces us to pick a relative estimate for the difficulty of the task. It also provides a fixed range for us to estimate difficulty where 7 would be considered very challenging while 1 is considered trivial.

Product Backlog

ID	User Story	Story Points
1	As a customer, I can register for an account with my name, address, contact number, email address, and password so that I can make appointments on the web system.	3
2	As a customer, I can edit my account information so that if my contact information changes, I am able to modify it on the website.	3
3	As a customer, I can view my appointment on the website so that I can check the website anytime to find out when my booked appointment is.	3
4	As a customer, I want to be able to login to my signed up account , so that I can access and utilise the system for my needs.	2
Milestone 1	User is now able to setup and access account	
5	As a customer, I can select a healthcare profession type and a list of healthcare professional's name of the selected type and their corresponding per-hour charge will be displayed so that I can make a better decision as to which healthcare professional is most suited to my needs and budget.	5
6	As a customer, I selected my preferred healthcare professional's name and a list of available consultation times will be displayed so that I can choose which time-slot I would like to request my booking at.	7
7	As a customer, I can choose my preferred consultation time so that my appointment can be booked.	4
8	As a customer, I can write an optional message alongside my booking so that it can be sent to the healthcare professional at which I have made the booking with.	1
9	As a customer, I must receive an email with regards to my booking so that I know that my booking request has been confirmed.	2
10	As a healthcare professional, I must receive an email with the name, contact number, email address, date and time of booking, and an optional message of the customer when the booking is confirmed so that I have information about the upcoming consultation with the customer.	3

Milestone 2	User is now able to book appointments	
11	As a customer, I can cancel my appointment on the website so that I can inform the healthcare center that I am unable to make it to my appointment.	4
12	As a healthcare professional, I must receive an email with the name, contact number, email address, date and time of booking of the customer if he/she cancels their booking so that I am aware of the cancellation.	3
Milestone 3	User is now able to cancel bookings	
13	As an admin, I can log into the system with a pre-determined username and password so that the system is protected from unwanted adversaries.	2
14	As an admin, I can view the history of all booking requests made on the system so that I am aware of which customer had made a booking with which healthcare professional.	3
15	As an admin, I can add healthcare professional's name, profession type, email address, and charge-per-hour on the system so that if a new healthcare professional joins the center, his/her information can be entered into the system.	3
Milestone 4	Admin is now able to manage website	

Sprint 1 Plan

Sprint Goal

Implement features:

1. Create, access and edit user account
2. View healthcare professionals based on their profession type
3. Admin of system able to access system and add healthcare professionals
4. User is able to create a prototype booking system and receive email confirmation
5. UI design of website

Sprint Backlog and Task Breakdown

ID	User Story	Tasks	Story Points
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1	As a customer, I can register for an account with my name, address, contact number, email address, and password so that I can make appointments on the web system.	<ol style="list-style-type: none"> 1. Create signup form (½ hr) 2. Save signup information to database (1 hr) 3. Create error messages (½ hr) 4. Page Transition after signup(½ hr) 	3
2	As a customer, I can edit my account information so that if my contact information changes, I am able to modify it on the website.	<ol style="list-style-type: none"> 1. Create edit account information form(½ hr) 2. Save edited information to database(1 hr) 3. Create Error messages(1 hr) 4. Page Transition after editing(½ hr) 5. Display updated information from the database(½ hr) 	3
4	As a customer, I want to be able to login to my signed up account , so that I can access and utilise the system for my needs.	<ol style="list-style-type: none"> 1. Create login form(½ hr) 2. Check login information from database(1 hr) 3. Create error messages(½ hr) 4. Page transition after editing(½ hr) 	2
5	As a customer, I can select a healthcare profession type and a list of healthcare professional's name of the selected type and their corresponding per-hour charge will be displayed so that I can make a better decision as to which healthcare professional is most suited to my needs and budget.	<ol style="list-style-type: none"> 1. Create healthcare profession type selection(½ hr) 2. Get and display professionals & their details from database based on profession type chosen (1½ hr) 3. Create error messages(½ hr) 	5
7	As a customer, I can choose my preferred consultation time so that my appointment	<ol style="list-style-type: none"> 1. Create display for all consultation times(½ hr) 	4

	can be booked.	<ol style="list-style-type: none"> 2. Create booking form(½ hr) 3. Create Error messages(½ hr) 4. Create confirmation message(½ hr) 5. Save booking information to database (1 hr) 	
9	As a customer, I must receive an email with regards to my booking so that I know that my booking request has been confirmed.	<ol style="list-style-type: none"> 1. Get correct user email from database(½ hr) 2. Send email with appropriate information(1 hr) 3. Create Error messages(½ hr) 4. Create confirmation message(½ hr) 5. Page Transition after successfully emailing(½ hr) 	2
13	As an admin, I can log into the system with a pre-determined username and password so that the system is protected from unwanted adversaries.	<ol style="list-style-type: none"> 1. Check admin login from database(1 hr) 2. Create admin confirmation message(½ hr) 3. Page Transition to admin sections after login(½ hr) 	2
15	As an admin, I can add healthcare professional's name, profession type, email address, and charge-per-hour on the system so that if a new healthcare professional joins the center, his/her information can be entered into the system.	<ol style="list-style-type: none"> 1. Create profile creation form(1 hr) 2. Save profile information to database(1 hr) 3. Create Error messages(½ hr) 4. Create addition confirmation message(½ hr) 5. Page Transition after successfully adding profile(½ hr) 	3

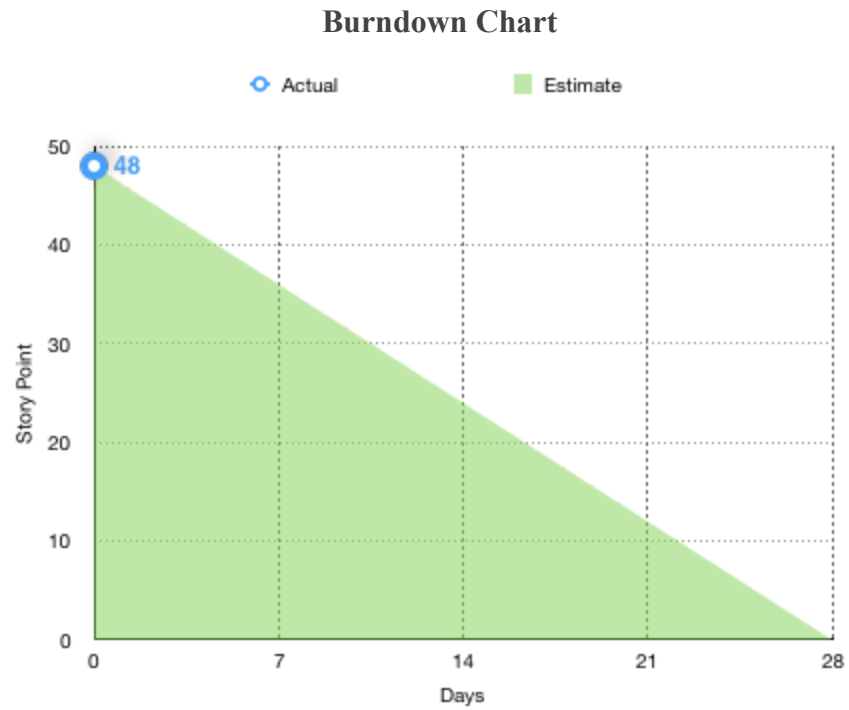


Fig 6.5 Burndown chart at the beginning of the project

Estimated velocity,

$$velocity = \frac{\text{Total story points in project}}{\text{Number of days to complete project}}$$

$$velocity = \frac{48}{28} = 1.71 \frac{\text{story points}}{\text{day}}$$

Project Execution, Monitoring and Control

7.1 Project Status

Sprint 1 and Sprint 2 have been completed and the team has implemented core functionality to the website. The user is able to login, register, find specific healthcare professionals and book an appointment. The admin user is able to login to the system with a predefined account and add new healthcare professionals. Corvid API was used to customize and enhance Wix's functionality. This also allows us to satisfy the requirements of the system that could not be implemented just by using Wix's predefined functionality.

7.1.1 Process Related Artefacts

7.1.1.1 Meeting Agendas & Minutes - Sprint 1

See Appendix I for

- 1.1 Sprint 1 Review Meeting Agenda
- 1.2 Sprint 1 Review Meeting Minutes
- 1.3 Sprint 1 Retrospective Meeting Agenda
- 1.4 Sprint 1 Retrospective Meeting Minutes

7.1.1.2 Sprint 1 Review Inputs and Outcomes

Sprint Review Input

1. Progress update on the tasks from team members

The team has only completed the user stories 5. The user stories 4 is in progress. The progress on other user stories in the sprint 1 backlog were discarded because of fail to integrate with other features of the system and will have to carry to Sprint 2.

Completed	In progress	To be completed
User stories 5	User stories 4	User stories 1, 2, 7, 9 ,13, 15

2. Demonstrate the completed features

The team has demonstrated the following features: that select healthcare profession type and display all healthcare professionals of that type in the current demo.

Sprint Review Outcome

1. Feedbacks from the product owner

Alena is happy with the outcome, however, she expressed her concerns on the productivity of the project since Sprint 1 only completed one user stories, which was planned to completed 8 user stories. The Scrum Master stated the solution will be came up to cope with this situation in accordance to the risk response plan.

7.1.1.3 Sprint 1 Retrospective

The Scrum Master discussed with the team and came to the conclusion that the reason why the project was falling behind was because the team weren't familiar with the development tools, Wix, which slow down the progress of the project.

The team members were using different built-in apps and templates to complete their individual assigned user stories. The issue is that the built-in apps they used are not compatible because they are using different database, which will cause the problem of data duplication and inconsistency. For example, Kai was using the Wix's built-in registration form, which does not allow users to input their address, an address field has to be manually created to do so, but this manually created input field does not store the input data into the default database of the registration form. As such, the user's address is not stored in the database and the user is also unable to edit his/her address. In addition, the admin page built by Ziping cannot directly access the booking system built by Medha because these two functionalities are using different databases.

Therefore, the team had to start from scratch again to resolve this issue and couldn't finish the tasks on time. In addition, the team members also have other academic commitments (e.g. exam, assignments) at the sprint 1 that prevent themselves from fully devoting to the project.

What we need to start doing?

The subject matter expert will customized their own pre-defined template with JavaScript and build the standard interface to be used in the project to ensure compatibility of different parts of the system.

The Scrum Master will spend more time on communicating with the development team members to reassign the tasks according to their availability.

What we need to stop doing?

The team will stop using their incompatible built-in apps or templates to cut down on idle work.

What we need to continue doing?

The team needs to keep studying and enhancing their skills of using their development tools, Wix. More research needs to be done on how to use WIX appropriately for what the project requires.

7.1.1.4 Burndown Chart - Sprint 1

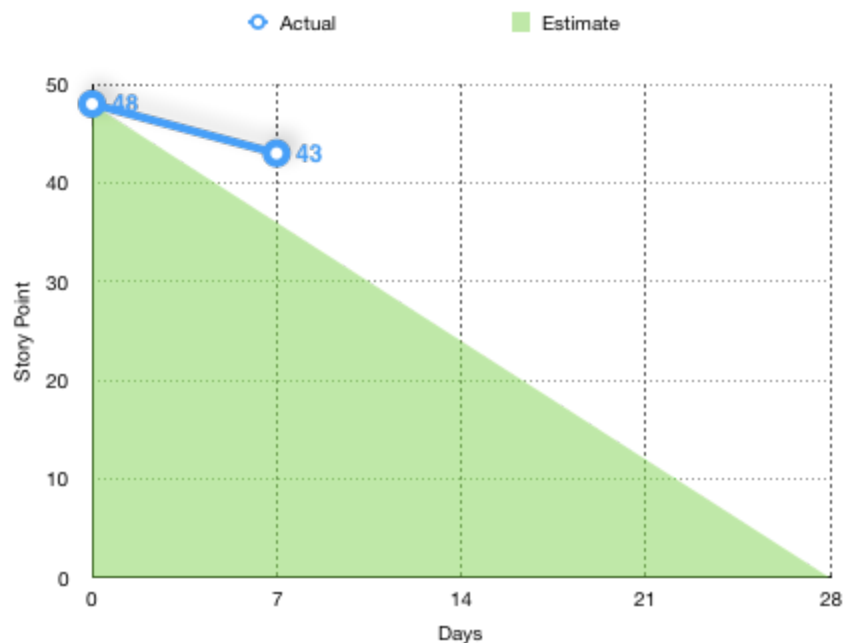


Fig 7.1.1.4 Burndown Chart for Sprint 1

7.1.1.5 Velocity Estimations - Sprint 1

The story points (SP) completed in Sprint 1 are 5 story points.

The time (T) for this Sprint is 7 days.

Therefore, the velocity for Sprint 1 is $V = \frac{SP}{T} = \frac{5}{7} \approx 0.71$

The expected velocity was $V_e = \frac{SP}{T} = \frac{48}{28} = 1.71$

The current velocity is one story point per day slower than the estimated velocity, which needs to catch up or the project will fall behind and cannot be delivered on time.

7.1.1.6 Kanban Board - Sprint 1

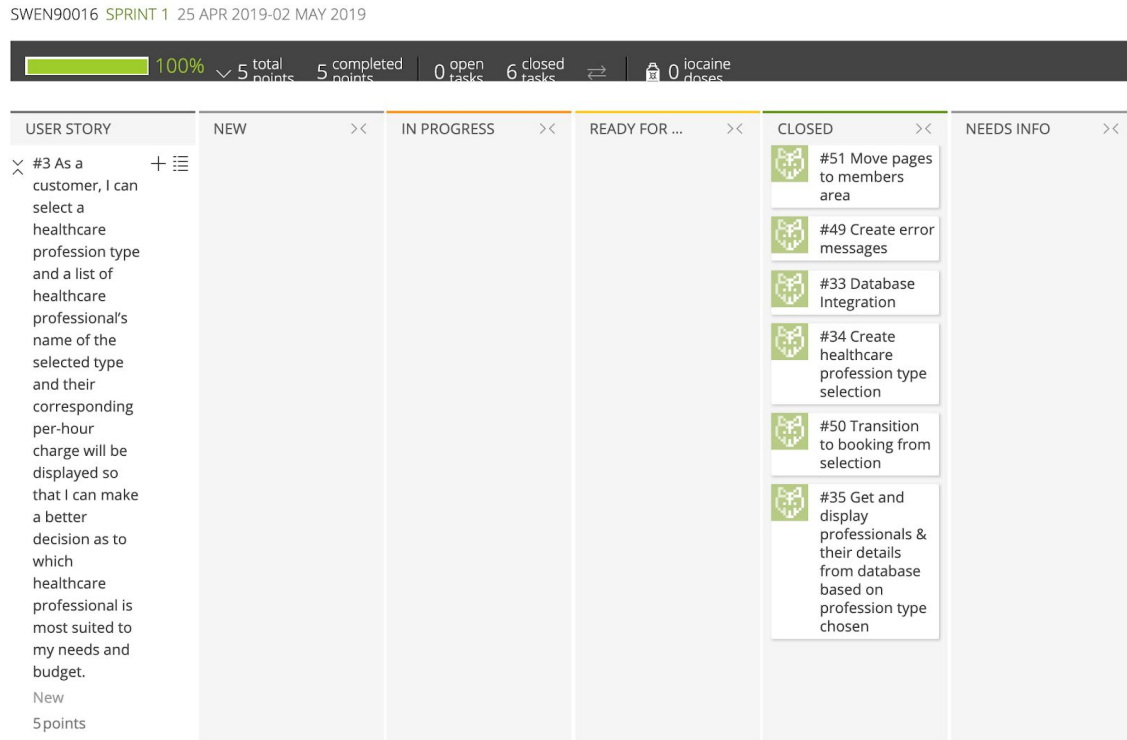


Fig 7.1.1.6 Kanban Board

(The user story id in this screenshot doesn't reflect the user story id allotted in the PMP due to limitations of the chosen Kanban platform)

User Story #5 (5 User Story Points)

As a customer, I can select a healthcare profession type and a list of healthcare professional's name of the selected type and their corresponding per-hour charge will be displayed so that I can make a better decision as to which healthcare professional is most suited to my needs and budget.

Closed Tasks
Database Integration
Create healthcare profession type selection
Get and display professionals & their details from database based on profession type chosen
Create error messages
Transition to booking from selection
Move pages to members area

Sprint 1 Completed

7.1.1.7 Meeting Agenda & Minutes - Sprint 2

See Appendix I for

1.5 Sprint 2 Planning Meeting Agenda

1.6 Sprint 2 Planning Meeting Minutes

1.7 Sprint 2 Review Meeting Agenda

1.8 Sprint 2 Review Meeting Minutes

1.9 Sprint 2 Retrospective Meeting Agenda

1.10 Sprint 2 Retrospective Meeting Minutes

7.1.1.8 Sprint 2 Planning outcomes

Sprint Backlog and Task Breakdown for sprint 2

ID	User Story	Tasks	Story Points
1	As a customer, I can register for an account with my name, address, contact number, email address, and password so that I can make appointments on the web system.	<ol style="list-style-type: none"> 1. Create signup form (½ hr) 2. Save signup information to database (1 hr) 3. Create error messages (½ hr) 4. Page Transition after signup(½ hr) 	3
2	As a customer, I can edit my account information so that if my contact information changes, I am able to modify it on the website.	<ol style="list-style-type: none"> 1. Create edit account information form(½ hr) 2. Save edited information to database(1 hr) 3. Create Error messages(1 hr) 4. Page Transition after editing(½ hr) 5. Display updated information from the database(½ hr) 	3

4	As a customer, I want to be able to login to my signed up account , so that I can access and utilise the system for my needs.	1. Create login form(½ hr) 2. Check login information from database(1 hr) 3. Create error messages(½ hr) 4. Page transition after editing(½ hr)	2
5	As a customer, I can select a healthcare profession type and a list of healthcare professional's name of the selected type and their corresponding per-hour charge will be displayed so that I can make a better decision as to which healthcare professional is most suited to my needs and budget.	1. Create healthcare profession type selection(½ hr) 2. Get and display professionals & their details from database based on profession type chosen (1½ hr) 3. Create error messages(½ hr)	5
6	As a customer, I selected my preferred healthcare professional's name and a list of available consultation times will be displayed so that I can choose which time-slot I would like to request my booking at.	1. Integrate database into UI 2. Transition after confirmation 3. Design UI	7
7	As a customer, I can choose my preferred consultation time so that my appointment can be booked.	1. Create display for all consultation times(½ hr) 2. Create booking form(½ hr) 3. Create Error messages(½ hr) 4. Create confirmation message(½ hr) 5. Save booking information to database (1 hr)	4
9	As a customer, I must receive an email with regards to my booking so that I know that my booking request has been confirmed.	1. Get correct user email from database(½ hr) 2. Send email with appropriate	2

		information(1 hr) 3. Create Error messages(½ hr) 4. Create confirmation message(½ hr) 5. Page Transition after successfully emailing(½ hr)	
13	As an admin, I can log into the system with a pre-determined username and password so that the system is protected from unwanted adversaries.	1. Check admin login from database(1 hr) 2. Create admin confirmation message(½ hr) 3. Page Transition to admin sections after login(½ hr)	2
15	As an admin, I can add healthcare professional's name, profession type, email address, and charge-per-hour on the system so that if a new healthcare professional joins the center, his/her information can be entered into the system.	1. Create profile creation form(1 hr) 2. Save profile information to database(1 hr) 3. Create Error messages(½ hr) 4. Create addition confirmation message(½ hr) 5. Page Transition after successfully adding profile(½ hr)	3

7.1.1.9 Sprint 2 Review inputs and outcomes

Sprint Review Input

1. Progress update on the tasks from team members

The team has resolved the issue of incompatibility encountered in last Sprint by building their own interface with JavaScript and Wix's API and using one consistent database.

The team has completed the user stories 1, 4, 6, 7, 13, 15. The user stories 2 and 9 is in progress because these two user stories involved sending emails to patients and health professionals, which is more challenging and requires more time and resources to complete.

Completed	In progress
User stories 1, 4, 6, 7, 13, 15	User stories 2, 9

2. Demonstrate the completed features

The team has demonstrated the following features:

1. User can login
2. User can register to system
3. User can book an appointment with a healthcare professional
4. Admin can login to system
5. Admin can add healthcare professional to system

Sprint Review Outcome

1. Feedbacks from the product owner

Alena was very happy with the outcome, especially the team has increased their productivity and delivered so many user stories compared to the last Sprint. She would like the team to keep up the good work.

7.1.1.10 Sprint 2 Retrospective

What have we done well?

1. The team has resolved the issue of incompatibility encountered in last Sprint by building their own interface with JavaScript and Wix's API and using one consistent database.
2. The team has utilised team's individual expertise in completing tasks in the sprint. For example, the subject Matter Expert has provided solution to the technical issues. The Scrum Master has raised the morale of the team and improved team productivity.

What we need to continue doing?

1. The team needs to maintain the current working pace in this Sprint.

What is not right and that we have to stop doing?

1. In the future development, stop using WIX's pre-built templates without ensuring their compatibility with existing features. Make sure they can be linked to current database in use.

7.1.1.11 Burndown Chart - Sprint 2

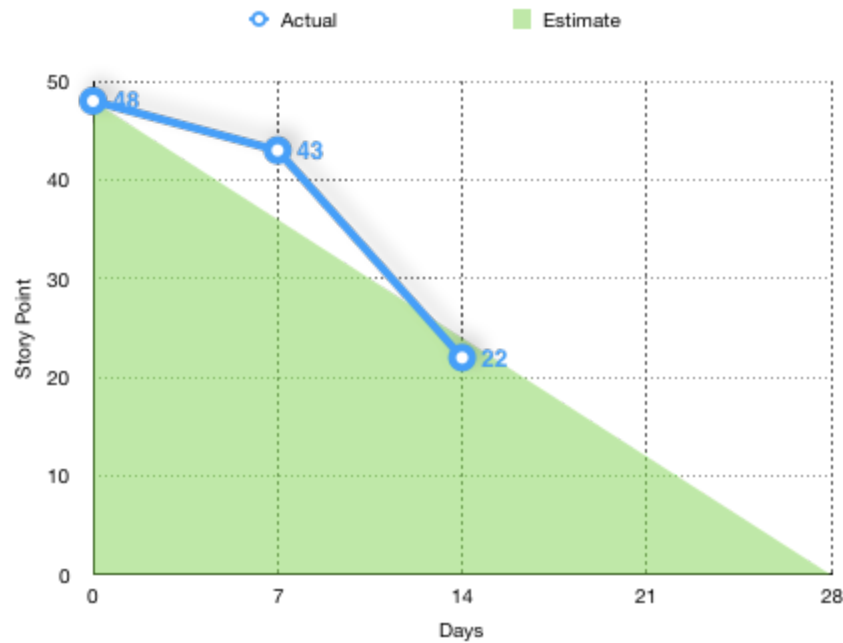


Fig 7.1.1.11 Burndown chart for Sprint 2

7.1.1.12 Velocity Estimations - Sprint 2

The story points (SP) completed in Sprint 1 are 21 story points.

The time (T) for this Sprint is 7 days.

Therefore, the velocity for Sprint 1 is $V = \frac{SP}{T} = \frac{21}{7} \approx 3$

The expected velocity was $V_e = \frac{SP}{T} = \frac{48}{28} = 1.71$

The current velocity is 1.3 story point per day faster than the estimated velocity. This is because the project was falling behind in Sprint 1 so the team managed to complete extra stories points in Sprint 2 to catch up.

7.1.1.13 Kanban Board - Sprint 2

SWEN90016 SPRINT 2 02 MAY 2019-16 MAY 2019

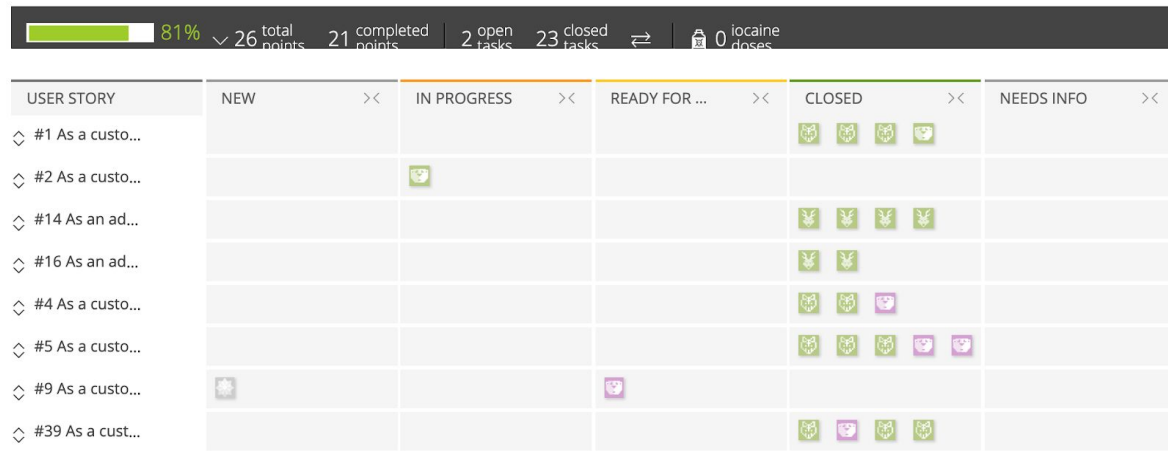


Fig 7.1.1.13a Kanban Board folded

SWEN90016 SPRINT 2 02 MAY 2019-16 MAY 2019

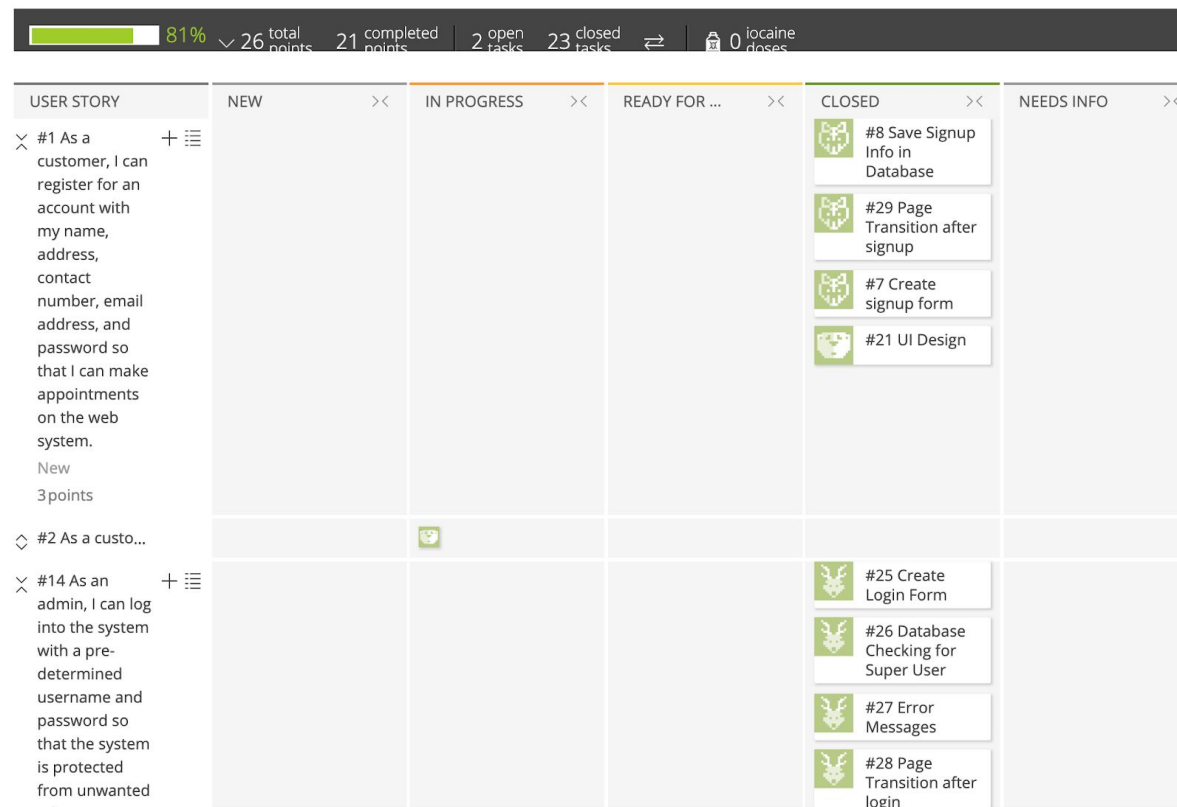


Fig 7.1.1.13b Kanban unfolded

User Story #1 (3 User Story Points)

As a customer, I can register for an account with my name, address, contact number, email address, and password so that I can make appointments on the web system.

Closed Tasks

Create sign up form

Save information from sign up form in database

UI Design

Page Transition after sign up

User Story #4 (2 User Story Points)

As a customer, I want to be able to login to my signed up account, so that I can access and utilise the system for my needs.

Closed Tasks

UI confirmation

Create login form

Database checking for user

Page transition after login

User Story #6 (7 User Story Points)

As a customer, I selected my preferred healthcare professional's name and a list of available consultation times will be displayed so that I can choose which time-slot I would like to request my booking at.

Closed Tasks
Integrate database into UI
Design UI
Page transition after confirmation

User Story #7 (4 User Story Points)

As a customer, I can choose my preferred consultation time so that my appointment can be booked.

Closed Tasks
Database Integration
Design UI
Page transition after confirmation
Save booking to database
Confirmation message

User Story #9 (2 User Story Points)

As a customer, I must receive an email with regards to my booking so that I know that my booking request has been confirmed.

Closed Tasks

Get relevant information from database

Tasks in Progress

Get relevant information from database

Trigger email with booking confirmation

User Story #13 (2 User Story Points)

As an admin, I can log into the system with a pre-determined username and password so that the system is protected from unwanted adversaries.

Closed Tasks

Create Login form

Check database for super user

Error messages

Page transition after login

User Story #15 (3 User Story Points)

As an admin, I can add healthcare professional's name, profession type, email address, and charge-per-hour on the system so that if a new healthcare professional joins the center, his/her information can be entered into the system.

Closed Tasks

Create healthcare professional form

Save form information in database

Sprint 2 Completed

7.1.2 Product Related Artefacts

Sprint 1

7.1.2.1 Requirements Fulfilled - Sprint 1

In this sprint we have fulfilled this requirement:

1. Find relevant health-care professional for booking

User is able to first select a type of health care professional from a list of available types. Once selected, the user will be able to see all health care professionals of that type and select the one he/she desires.

7.1.2.2 Completed Related User Stories and Feature List - Sprint 1

User Stories completed

ID	User Stories	Status
5	As a customer, I can select a healthcare profession type and a list of healthcare professional's name of the selected type and their corresponding per-hour charge will be displayed so that I	Completed

	can make a better decision as to which healthcare professional is most suited to my needs and budget.	
4	As a customer, I want to be able to login to my signed up account , so that I can access and utilise the system for my needs.	In progress

Feature List

1. Select healthcare profession type and display all healthcare professionals of that type

7.1.2.3 Design of Website - Sprint 1

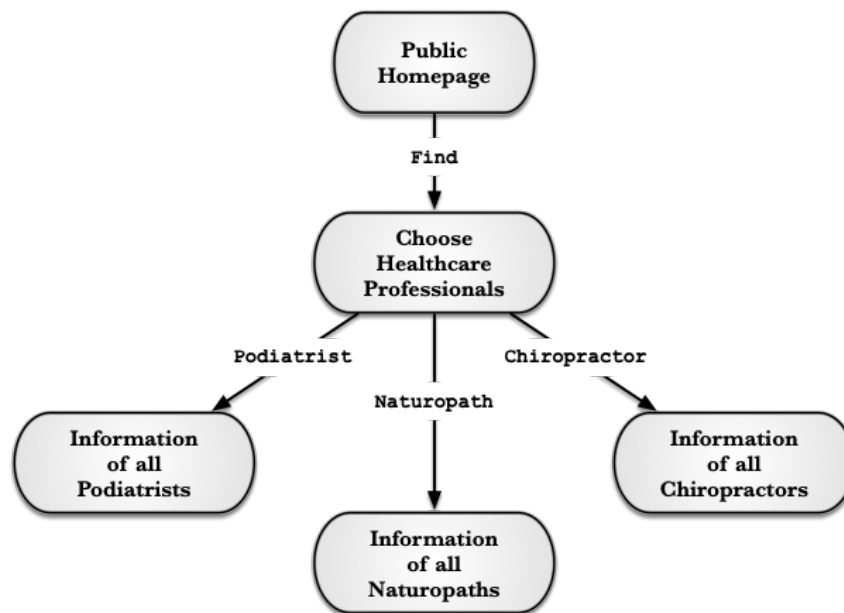


Fig 7.1.2.3a Flowchart of website features

Format of healthcare professionals collection

HealthcareProfessionals
+ Name : String
+ _id :String
+ email : String
+ PerHour : Int
+ Type :String

Fig 7.1.2.3b Data collection of healthcare professionals

Select healthcare profession type

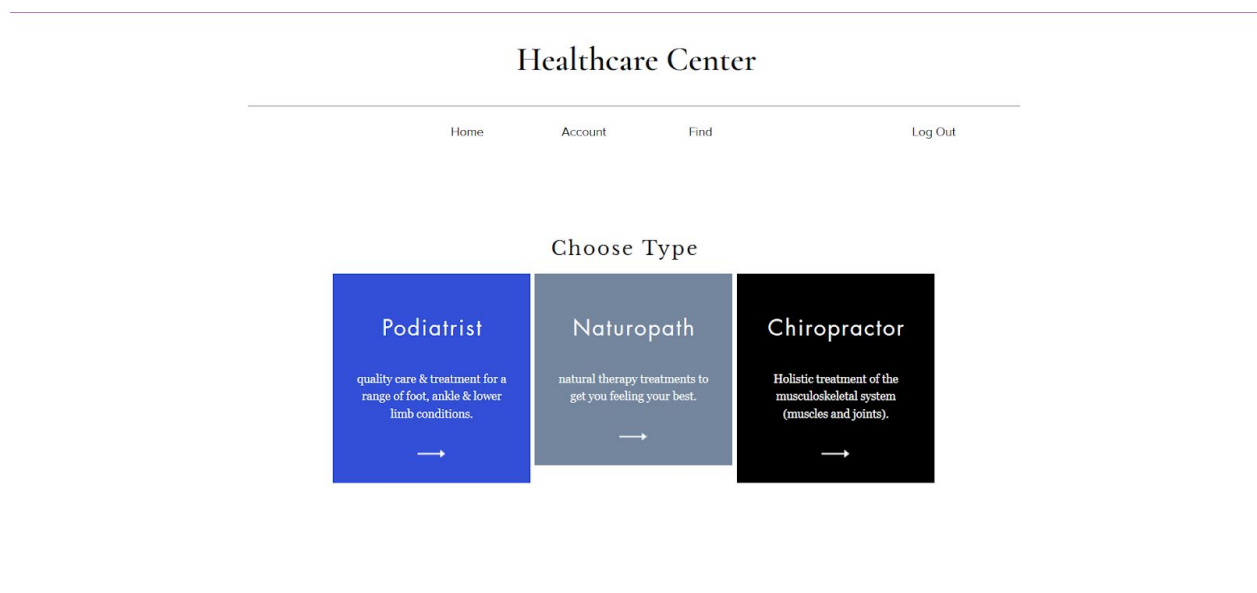


Fig 7.1.2.3c. Select interface

Display all healthcare professionals of that type

Healthcare Center			
Home	Account	Find	Log Out
Health-care Professionals			
Name	Type	PerHour	Email
name	naturopath	11	hey@email

Fig 7.1.2.3d. Display table for naturopaths

Sprint 2

7.1.2.4 Requirements Fulfilled - Sprint 2

In this sprint we have fulfilled these requirements:

1. User is able to login

User is able to login to the system with registered email and password

2. User is able to register in the system

User is able to register in the system by providing the following information:

- Name (First and Last)
 - Home Address (Address and postal code)
 - Contact Number
 - Email Address
 - Initial Password
3. User is able to make an appointment with selected healthcare professional

Once a logged in user has selected a healthcare professional, they can now book an appointment from the available time slots displayed

4. Admin is able to login

The admin user is able to log into the system with a predefined admin account. Once logged in, this user will be able to view admin specific pages and functions

5. Admin can add healthcare professionals to system

The admin user is able to add new healthcare professionals to the system

7.1.2.5 Completed Related User Stories and Feature List - Sprint 2

User Stories completed

ID	User Stories	Status
1	As a customer, I can register for an account with my name, address, contact number, email address, and password so that I can make appointments on the web system.	Completed
4	As a customer, I want to be able to login to my signed up account , so that I can access and utilise the system for my needs.	Completed
6	As a customer, I selected my preferred healthcare professional's name and a list of available consultation times will be displayed so that I can choose which time-slot I would like to request my booking at.	Completed
7	As a customer, I can choose my preferred consultation time so that my appointment can be booked.	Completed
13	As an admin, I can log into the system with a pre-determined username and password so that the system is protected from unwanted adversaries.	Completed
15	As an admin, I can add healthcare professional's name, profession type, email address, and charge-per-hour on the system so that if a new healthcare professional joins the center, his/her information can be entered into the system.	Completed

Feature List

1. User can login
2. User can register to system
3. User can book an appointment with a healthcare professional
4. Admin can login to system
5. Admin can add healthcare professional to system

7.1.2.6 Design of Website - Sprint 2

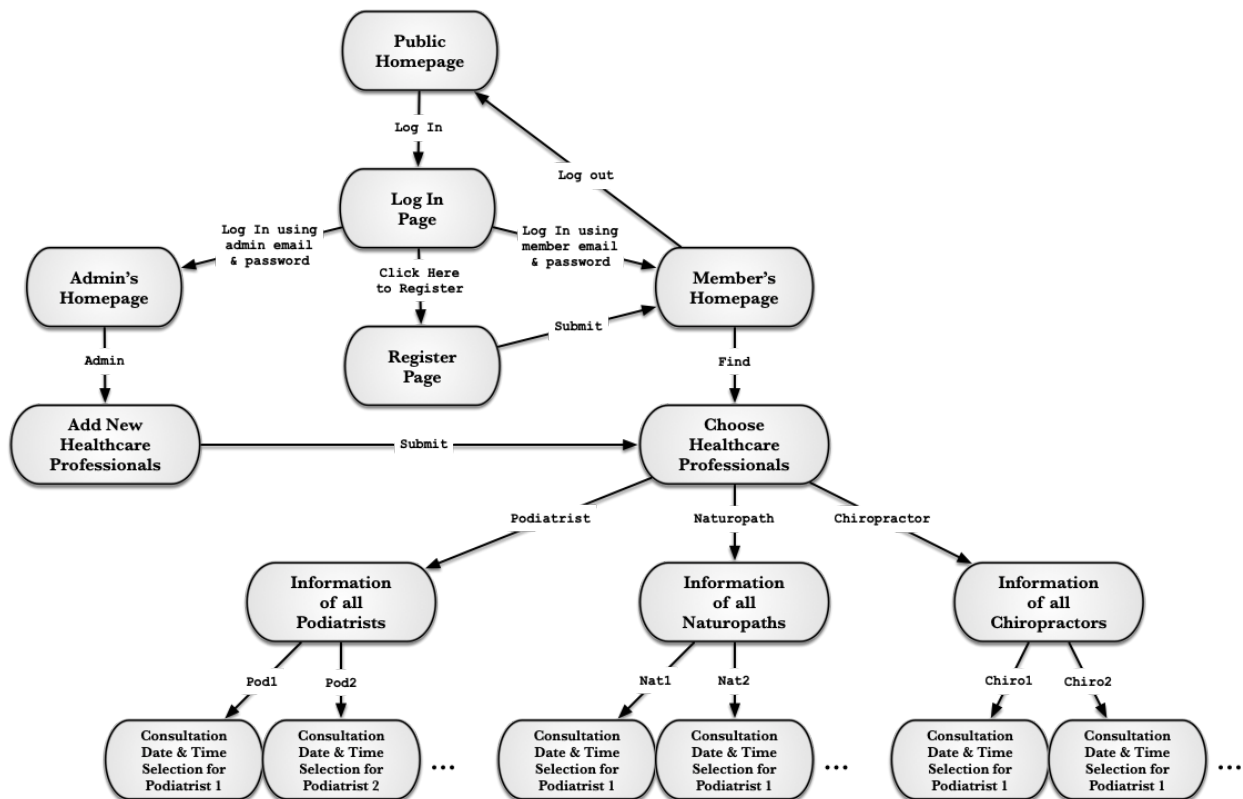


Fig 7.1.2.6a Flowchart of website features

Format of database collections needed for implemented features

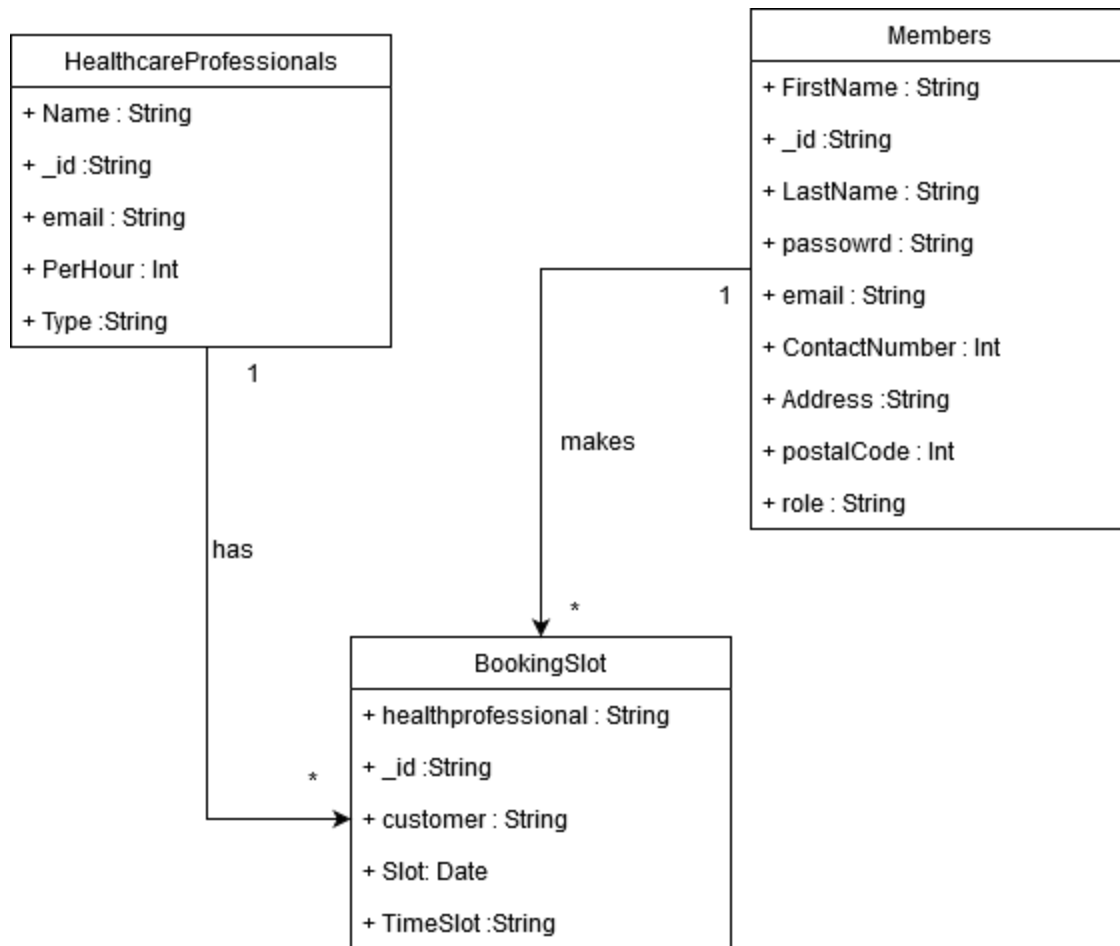


Fig 7.1.2.6b Database collection of implemented features

Login System

Healthcare Center

[Home](#)[Account](#)[Find](#)[Log In](#)

Log In

[Click Here to Register](#)

Log In

Fig 7.1.2.6c Login Interface

```
//-----
$( "#button1" ).on( click, function( event ) {

    let email = $( "#input1" ).val();
    let password = $( "#input2" ).val();
    console.log(email)
    wixData.query("Members")
    .eq("email", email)
    .eq("password",password)
    .find()
    .then( function( results ) {
        console.log(results.items);
        if (results.length === 0){
            wixWindow.openLightbox("LogError");
        }else{
            session.setItem("role", results.items[0].role);
            session.setItem("id", results.items[0]._id)
            wixLocation.to("https://kaihyanaibisoon.wixsite.com/healthcarecenter");
        }
    } );
});
```

Fig 7.1.2.6d. Code Written for Login System

Register System

Healthcare Center

[Home](#)
[Account](#)
[Find](#)
[Log In](#)

Register

First Name
 Last Name

Email

Password

Contact Number

Address

Post Code

Fig 7.1.2.6e Register Interface

```

$w("#button12").onClick( (event) => {
  let name = $w("#input1").value
  let email = $w("#input2").value
  let password = $w("#input3").value
  let num = $w("#input4").value
  let address = $w("#input5").value
  let postcode = $w("#input6").value
  let lastname = $w("#input7").value
  let newUser = {
    "title" : name,
    "email" : email,
    "password" : password,
    "contactNumber" : Number(num),
    "address" : address,
    "postCode" : Number(postcode),
    "lastName" : lastname,
    "role" : "m"
  };
  wixData.query("Members")
    .eq("email", email)
    .find()
    .then( (results) => {
      console.log(results.items);
      if (results.length === 0){
        wixData.insert("Members", newUser)
          .then( (items) => {
            let item = items;
            //SHOULD ONLY KEEP ID AND ROLE IN SESSION AND QUERY FOR NEEDED DATA
            session.setItem("role", "m")
            session.setItem("id", item._id)

            console.log("success!")
            wixLocation.to("https://kaihyinaibisoon.wixsite.com/healthcarecenter")
          })
      }else{
        console.log("email has already been used!")
        wixWindow.openLightbox("EmailError");
      }
    })
});

```

Fig 7.1.2.6f Code written for Register System

Booking System

Healthcare Center

[Home](#) [Account](#) [Find](#) [Log Out](#)

05/10/2019

TimeSlot ▾

9am

10am

11am

12pm

1pm

2pm

3pm

4pm

Submit

Fig 7.1.2.6g Booking Interface

Admin User System



Fig 7.1.2.6h Home page when the Admin user has logged in

```

let userRole = session.getItem("role")
console.log(userRole)
if (userRole === null){
  console.log('no user logged in yet')
  $('#button7').disable()
  $('#button8').disable()
  $('#button10').collapse()
  $('#button11').collapse()
}else if (userRole === "m"){
  $('#button7').enable()
  $('#button8').enable()
  $('#button10').collapse()
  $('#button11').expand()
  $('#button9').collapse()
}else{
  $('#button9').collapse()
  $('#button10').expand()
}

```

Fig 7.1.2.6i. Code written to check if logged in user is admin or normal user

Add Healthcare professionals System

Admin
Healthcare Center

Home
Account
Find
Log Out

Adding New Health Professionals

Add Health Professional Name

Add Health Professionals Type

Add Health Professionals...

Add Health Professionals Email

Submit

Fig 7.1.2.6j Adding Healthcare professionals Interface

7.1.3 Risk Monitoring and Control

Risks that occurred during the execution of the project

The risk that the development team may not be able to commit time and effort to the project occurred during sprint 1, though no team member actually left the project. This problem was largely due to the fact that team members were unsure of how to use WIX as a web development tool, and that team members had to learn how to use WIX and develop the website at the same time. This resulted in less time for team members to complete the tasks required for sprint 1.

The scrum master had actively tried to avoid this risk from happening from the start of the project by assigning tasks to team members with relevant expertise but to no avail. The problem was naturally mitigated during sprint 2, as team members become well acquainted with WIX web development frame, and was, therefore, able to commit adequate time to complete the tasks assigned for the sprint.

Newly Discovered Risk/s

Risk ID	Risk Type	Description	Probability	Impact	Justification
11	Project	The chosen web development platform may not enable us to implement all functionalities required for the project.	50%	80%	If the chosen web development platform does not allow us to implement all functionalities required for the project, we will have to stop using this web development platform and switch to using another web development platform to complete the project. Considering the time that we have already spent implementing some of the functions of the website on the initial platform, this is a huge loss in time.

Risk Register for Newly Discovered Risk/s

Risk ID	Trigger	Owner	Response	Resources Required
11	The product is unable to meet certain requirements	Product Owner	This risk can be avoided by doing research on the web development platform before the project commences to ensure that the web development platform is able to implement the functionalities required of the final product.	More time will be required to properly research the web development platform to ensure that it is able to implement all required functionalities of the product.

Appendix I - Artefacts for Sprint 1 and Sprint 2

Section 1 Meeting agenda and meeting minutes

1.1 Sprint 1 Review Meeting Agenda

Team *ER_1_Team2*

Sprint 1 Review Meeting Agenda

Date: *2 May 2019*

ID	Agenda Item	Lead Speaker
1	Welcome and apologies	Product owner
2	Review tasks assigned to members in the Sprint 1 Planning meeting	Scrum Master
3	Progress update on the tasks from team members	Team members
4	Demonstrate the completed features	Team members
5	Feedbacks from the product owner	Product owner
6	Conclude the Meeting	Product Owner

1.2 Sprint 1 Review Meeting minutes

Minutes for Sprint 1 Review Meeting

Meeting of: ER_1_Team2
Held at: The University of Melbourne, Baillieu Library, Project Room 1
Date: 2 May 2019
Time: 13:00 - 15:00

Present:

Spike Lee, Ziping Chen, Medha Mishra, Kai Soon, Alena

Apologies:

N/A

Approval of minutes

The minutes of the previous meeting were unanimously approved as distributed.

Key Agenda items

1. Progress update on the tasks from team members

The team has only completed the user stories 5. The user stories 4 is in progress. The progress on other user stories in the sprint 1 backlog were discarded because of fail to integrate with other features of the system and will have to carry to Sprint 2.

Completed	In progress	To be completed
User stories 5	User stories 4	User stories 1, 2, 7, 9 ,13, 15

2. Demonstrate the completed features

The team has demonstrated the following features: that select healthcare profession type and display all healthcare professionals of that type in the current demo.

3. Feedbacks from the product owner

Alena is happy with the outcome, however, she expressed her concerns on the productivity of the project since Sprint 1 only completed one user stories, which was planned to completed 8 user stories. The Scrum Master stated the solution will be came up to cope with this situation in accordance to the risk response plan.

Action items

Action Item	Owner(s)	Deadline	Status
Productivity Improvement	Scrum Master	9 May 2019	Assigned
Completion of the remaining user stories from Sprint 1	Team Members	9 may 2019	In progress

Next meeting

The next Sprint review meeting will be at 13:00 on 9 May 2019 at Baillieu Library, Project Room 1

Minutes submitted by: Ziping Chen

Approved by: Spike Lee, Ziping Chen, Medha Mishra, Kai Soon

1.3 Sprint 1 Retrospective Meeting agenda

Team *ER_1_Team2*

Sprint 1 Retrospective Meeting Agenda

Date: 2 May 2019

ID	Agenda Item	Lead Speaker
1	Welcome and apologies	Scrum Master
2	Review feedback from the product owner in the sprint review meeting	Scrum Master
3	Burndown chart and velocity analysis	Scrum Master
4	Reflections on encountered issues and productivity	Team members
5	Conclude the Meeting	Scrum Master

1.4 Sprint 1 Retrospective Meeting minutes

Minutes for Sprint 1 Retrospective Meeting

Meeting of: ER_1_Team2
Held at: The University of Melbourne, Baillieu Library, Project Room 1
Date: 2 May 2019
Time: 15:00 - 16:00

Present:

Spike Lee, Ziping Chen, Medha Mishra, Kai Soon

Apologies:

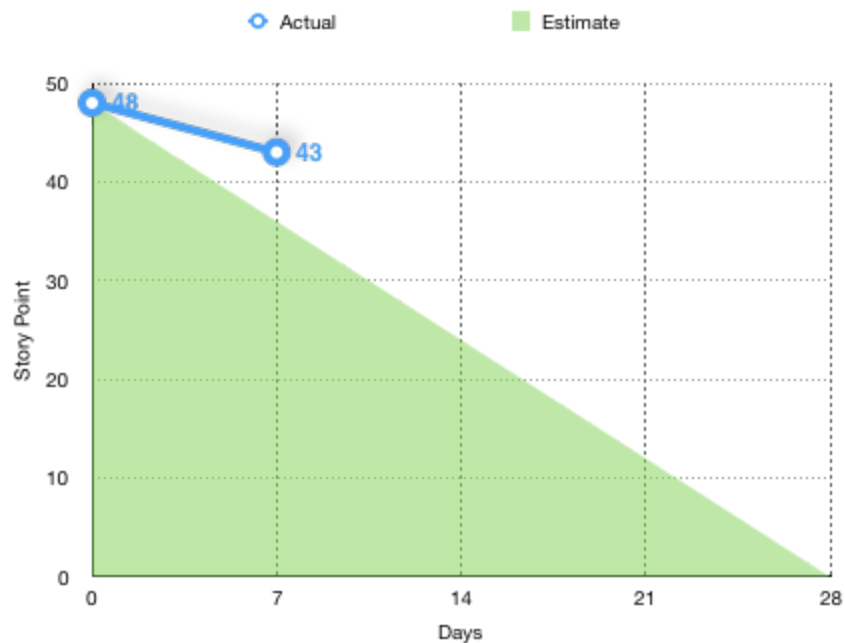
N/A

Approval of minutes

The minutes of the previous meeting were unanimously approved as distributed.

Key Agenda items

1. Burndown chart and velocity analysis



Sprint 1 only finished 5 story points at a velocity of 0.71 story points/day, which is slower than the expected velocity of 1.71 points/day.

2. Reflection on encountered issues and productivity

The Scrum Master discussed with the team and came to the conclusion that the reason why the project was falling behind was because the team weren't familiar with the development tools, Wix, which slow down the progress of the project.

The team members were using different built-in apps and templates to complete their individual assigned user stories. The issue is that the built-in apps they used are not compatible because they are using different database, which will cause the problem of data duplication and inconsistency. For example, Kai was using the Wix's built-in registration form, which does not allow users to input their address, an address field has to be manually created to do so, but this manually created input field does not store the input data into the default database of the registration form. As such, the user's address is not stored in the database and the user is also unable to edit his/her address. In addition, the admin page built by Ziping cannot directly access the booking system built by Medha because these two functionalities are using different databases.

Therefore, the team had to start from scratch again to resolve this issue and couldn't finish the tasks on time. In addition, the team members also have other academic commitments (e.g. exam, assignments) at the sprint 1 that prevent themselves from fully devoting to the project.

What we need to start doing?

The subject matter expert will customized their own pre-defined template with JavaScript and build the standard interface to be used in the project to ensure compatibility of different parts of the system.

The Scrum Master will spend more time on communicating with the development team members to reassign the tasks according to their availability.

What we need to stop doing?

The team will stop using their incompatible built-in apps or templates to cut down on idle work.

What we need to continue doing?

The team needs to keep studying and enhancing their skills of using their development tools, Wix. More research needs to be done on how to use WIX appropriately for what the project requires.

Action items

Action Item	Owner(s)	Deadline	Status
Productivity Improvement	Scrum Master	9 May 2019	Assigned
Define standard interface	Subject Matter Expert	9 may 2019	In progress

Next meeting

The next Sprint retrospective meeting will be at 15:00 on 9 May 2019 at Baillieu Library, Project Room 1

Minutes submitted by: Ziping Chen

Approved by: Spike Lee, Ziping Chen, Medha Mishra, Kai Soon

1.5 Sprint 2 Planning Meeting agenda

Team *ER_1_Team2*

Sprint 2 Planning Meeting Agenda

Date: 2 May 2019

ID	Agenda Item	Lead Speaker
1	Welcome and apologies	Product owner
2	Decide the user stories to be completed in the Sprint 2	Scrum Master
3	Decide Sprint 2 goals	Scrum Master
4	Create Sprint 2 backlogs	Scrum Master
5	Identify tasks to be completed in Sprint 2	Scrum Master
6	Assign tasks to the team members	Team members
7	Conclude the Meeting	Product Owner

1.6 Sprint 2 Planning Meeting minutes

Minutes for Sprint 2 Planning Meeting

Meeting of: ER_1_Team2
Held at: The University of Melbourne, Baillieu Library, Project Room 1
Date: 2 May 2019
Time: 16:00 - 17:00

Present:

Spike Lee, Ziping Chen, Medha Mishra, Kai Soon, Alena

Apologies:

N/A

Approval of minutes

The minutes of the previous meeting were unanimously approved as distributed.

Key Agenda items

1. Decided what user stories to be completed in Spring 2

The last Sprint haven't finished user stories 1, 2, 4, 7, 9, 13, 15 so this Sprint will continue working on these user stories and the corresponding tasks. Since user story 5 is completed, story 6 that is dependent on story 5 can start working now.

ID	User Story	Story Points
1	As a customer, I can register for an account with my name, address, contact number, email address, and password so that I can make appointments on the web system.	3
2	As a customer, I can edit my account information so that if my contact information changes, I am able to modify it on the website.	3
4	As a customer, I want to be able to login to my signed up account , so that I can access and utilise the system for my needs.	2
6	As a customer, I selected my preferred healthcare professional's name and a list of	7

	available consultation times will be displayed so that I can choose which time-slot I would like to request my booking at.	
7	As a customer, I can choose my preferred consultation time so that my appointment can be booked.	4
9	As a customer, I must receive an email with regards to my booking so that I know that my booking request has been confirmed.	2
13	As an admin, I can log into the system with a pre-determined username and password so that the system is protected from unwanted adversaries.	2
15	As an admin, I can add healthcare professional's name, profession type, email address, and charge-per-hour on the system so that if a new healthcare professional joins the center, his/her information can be entered into the system.	3

2. Decided Sprint 2 goals

Implement features:

- 1) Create, access and edit user account
- 2) Admin of system able to access system and add healthcare professionals
- 3) User is able to create a prototype booking system and receive email confirmation
- 4) UI design of website

3. Identify tasks to be completed in Sprint 2 and assign tasks to the team members

User Story	Tasks	Story Points	Owner
1	<ol style="list-style-type: none"> 1. Create signup form (½ hr) 2. Save signup information to database (1 hr) 3. Create error messages (½ hr) 4. Page Transition after signup(½ hr) 	3	Kai Soon/ Spike Lee
2	<ol style="list-style-type: none"> 1. Create edit account information form(½ hr) 2. Save edited information to database(1 hr) 	3	Kai Soon/ Spike Lee

	3. Create Error messages(1 hr) 4. Page Transition after editing(½ hr) 5. Display updated information from the database(½ hr)		
4	1. Check login information from database(1 hr) 2. Create error messages(½ hr) 3. Page transition after editing(½ hr)	2	Kai soon/ Spike Lee
6	1. Integrate database into UI 2. Transition after confirmation 3. Design UI	7	Spike Lee
7	1. Create display for all consultation times(½ hr) 2. Create booking form(½ hr) 3. Create Error messages(½ hr) 4. Create confirmation message(½ hr) 5. Save booking information to database (1 hr)	4	Medha Mishra/ Spike Lee
9	1. Get correct user email from database(½ hr) 2. Send email with appropriate information(1 hr) 3. Create Error messages(½ hr) 4. Create confirmation message(½ hr) 5. Page Transition after successfully emailing(½ hr)	2	Medha Mishra/ Spike Lee
13	1. Check admin login from database(1 hr) 2. Create admin confirmation message(½ hr) 3. Page Transition to admin sections after login(½ hr)	2	Ziping Chen/ Spike Lee
15	1. Create profile creation form(1 hr) 2. Save profile information to database(1 hr) 3. Create Error messages(½ hr) 4. Create addition confirmation message(½ hr) 5. Page Transition after successfully adding profile(½ hr)	3	Ziping Chen

Next meeting

The next Sprint review meeting will be at 13:00 on 9 May 2019 at Baillieu Library, Project Room 1

Minutes submitted by: Ziping Chen

Approved by: Spike Lee, Ziping Chen, Medha Mishra, Kai Soon

1.7 Sprint 2 Review Meeting Agenda

Team *ER_1_Team2*

Sprint 2 Review Meeting Agenda

Date: 9 May 2019

ID	Agenda Item	Lead Speaker
1	Welcome and apologies	Product owner
2	Review tasks assigned to members in the Sprint 2 Planning meeting	Scrum Master
3	Progress update on the tasks from team members	Team members
4	Demonstrate the completed features	Team members
5	Feedbacks from the product owner	Product owner
6	Conclude the Meeting	Product Owner

1.8 Sprint 2 Review Meeting Minutes

Minutes for Sprint 2 Review Meeting

Meeting of: ER_1_Team2
Held at: The University of Melbourne, Baillieu Library, Project Room 1
Date: 9 May 2019
Time: 13:00 - 15:00

Present:

Spike Lee, Ziping Chen, Medha Mishra, Kai Soon, Alena

Apologies:

N/A

Approval of minutes

The minutes of the previous meeting were unanimously approved as distributed.

Key Agenda items

1. Progress update on the tasks from team members

The team has resolved the issue of incompatibility encountered in last Sprint by building their own interface with JavaScript and Wix's API and using one consistent database.

The team has completed the user stories 1, 4, 6, 7, 13, 15. The user stories 2 and 9 is in progress because these two user stories involved sending emails to patients and health professionals, which is more challenging and requires more time and resources to complete.

Completed	In progress
User stories 1, 4, 6, 7, 13, 15	User stories 2, 9

2. Demonstrate the completed features

The team has demonstrated the following features:

1. User can login

2. User can register to system
 3. User can book an appointment with a healthcare professional
 4. Admin can login to system
 5. Admin can add healthcare professional to system
4. Feedbacks from the product owner

Alena was very happy with the outcome, especially the team has increased their productivity and delivered so many user stories compared to the last Sprint. She would like the team to keep up the good work.

Action items

Action Item	Owner(s)	Deadline	Status
Productivity Improvement	Scrum Master	9 May 2019	Completed
Completion of the remaining user stories from Sprint 2	Team Members	16 may 2019	Completed/ In progress

Next meeting

The next Sprint review meeting will be at 13:00 on 16 May 2019 at Baillieu Library, Project Room 1

Minutes submitted by: Ziping Chen

Approved by: Spike Lee, Ziping Chen, Medha Mishra, Kai Soon

1.9 Sprint 2 Retrospective Meeting Agenda

Team *ER_1_Team2*

Sprint 2 Retrospective Meeting Agenda

Date: *9 May 2019*

ID	Agenda Item	Lead Speaker
1	Welcome and apologies	Scrum Master
2	Review feedback from the product owner in the sprint review meeting	Scrum Master
3	Burndown chart and velocity analysis	Scrum Master
4	Reflections on encountered issues and productivity	Team members
5	Conclude the Meeting	Scrum Master

1.10 Sprint 2 Retrospective Meeting Minutes

Minutes for Sprint 2 Retrospective Meeting

Meeting of: ER_1_Team2
Held at: The University of Melbourne, Baillieu Library, Project Room 1
Date: 9 May 2019
Time: 15:00 - 16:00

Present:

Spike Lee, Ziping Chen, Medha Mishra, Kai Soon

Apologies:

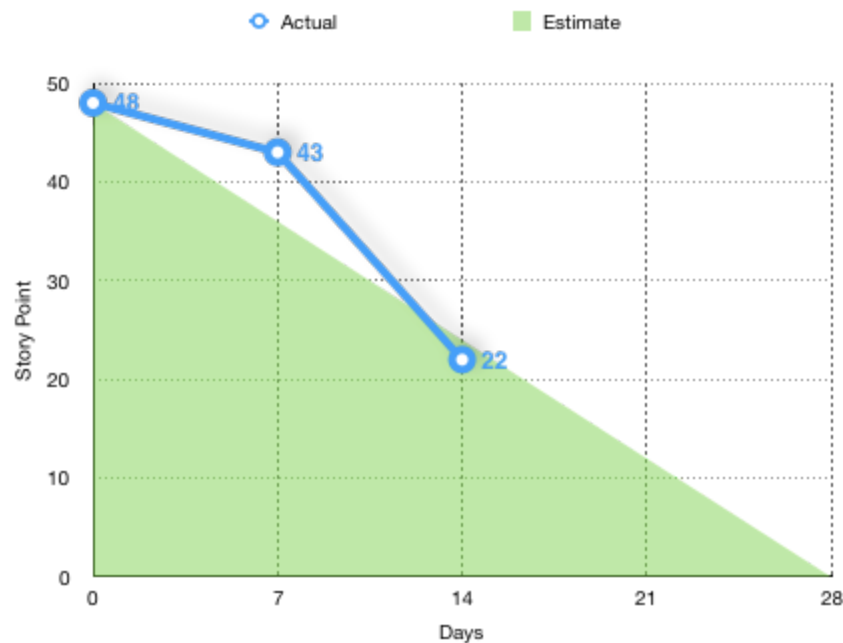
N/A

Approval of minutes

The minutes of the previous meeting were unanimously approved as distributed.

Key Agenda items

1. Burndown chart and velocity analysis



Sprint 2 finished 21 story points at a velocity of 3 story points/day, which is beyond the expected velocity of 1.71 points/day. Now the progress has caught up with where it was estimated.

2. Reflection on encountered issues and productivity

What have we done well?

The team has resolved the issue of incompatibility encountered in last Sprint by building their own interface with JavaScript and Wix's API and using one consistent database.

The team has utilised team's individual expertise in completing tasks in the sprint. For example, the subject Matter Expert has provided solution to the technical issues. The Scrum Master has raised the morale of the team and improved team productivity.

What we need to continue doing?

The team needs to maintain the current working pace in this Sprint.

What is not right and that we have to stop doing?

1. In the future development, stop using WIX's pre-built templates without ensuring their compatibility with existing features. Make sure they can be linked to current database in use.

Next meeting

The next Sprint retrospective meeting will be at 15:00 on 16 May 2019 at Baillieu Library, Project Room 1

Minutes submitted by: Ziping Chen

Approved by: Spike Lee, Ziping Chen, Medha Mishra, Kai Soon

Section 2 Timesheets

Timesheet

Member Name: *Medha Mishra*
Team name: *ER_1_Team2*
Tutor: *Esther Rotimi*
Date: *16 May 1019*

Date	Activity	Planned	Actual
Wednesday 1 May	Daily Stand up	30 mins	30 mins
Thursday 2 May	Sprint 1 Review Meeting	2 hours	2 hours
Thursday 2 May	Sprint 1 Retrospective Meeting	1 hour	1 hour
Thursday 2 May	Sprint 2 Planning Meeting	1 hour	1 hour
Saturday 4 May	Daily Stand up	30 mins	30 mins
Tuesday 7 May	Daily Stand up	30 mins	30 mins
Wednesday 8 May	Worked on user story #7 and #8	2 hours	2 hours
Thursday 9 May	Researching how to gap Wix template shortcoming	2 hours	2 hours
Thursday 9 May	Sprint 2 Review Meeting	2 hours	2 hours
Thursday 9 May	Sprint 2 Retrospective Meeting	1 hour	1 hour

Timesheet

Member Name: Spike Chun Yi Lee
Team name: ER_1_Team2
Tutor: Esther Rotimi
Date: 16 May 1019

Date	Activity	Planned	Actual
Tuesday 31 April	Worked on user story 5	3 hours	2 hours
Wednesday 1 May	Daily Stand up	30 mins	30 mins
Thursday 2 May	Sprint 1 Review Meeting	2 hours	2 hours
Thursday 2 May	Sprint 1 Retrospective Meeting	1 hour	1 hour
Thursday 2 May	Sprint 2 Planning Meeting	1 hour	1 hour
Saturday 4 May	Daily Stand up	30 mins	30 mins
Monday 6 May	Worked on user stories 6,7	3 hours	4 hours
Monday 6 May	Research Usage of Wix's Corvid API	1 hours	1 hours
Tuesday 7 May	Daily Stand up	30 mins	30 mins
Wednesday 8 May	Worked on user stories 1,4,13	2 hours	2 hours
Thursday 9 May	Sprint 2 Review Meeting	2 hours	2 hours
Thursday 9 May	Sprint 2 Retrospective Meeting	1 hour	1 hour

Timesheet

Member Name: Kai Soon
Team name: ER_1_Team2
Tutor: Esther Rotimi
Date: 16 May 1019

Date	Activity	Planned	Actual
Thursday 25 April	Researching the WIX development platform	2 hours	3 hours
Monday 29 April	Worked on user story #1	1 hour	2.5 hours
Wednesday 1 May	Daily Stand up	30 mins	30 mins
Wednesday 1 May	Worked on user story #2	1 hour	2 hours
Thursday 2 May	Sprint 1 Review Meeting	2 hours	2 hours
Thursday 2 May	Sprint 1 Retrospective Meeting	1 hour	1 hour
Thursday 2 May	Sprint 2 Planning Meeting	1 hour	1 hour
Saturday 4 May	Daily Stand up	30 mins	30 mins
Monday 6 May	Worked on user story #3	1 hour	2 hours
Tuesday 7 May	Daily Stand up	30 mins	30 mins
Thursday 9 May	Sprint 2 Review Meeting	2 hours	2 hours
Thursday 9 May	Sprint 2 Retrospective Meeting	1 hour	1 hour

Timesheet

Member Name: *Ziping Chen*
Team name: *ER_1_Team2*
Tutor: *Esther Rotimi*
Date: *16 May 1019*

Date	Activity	Planned	Actual
Tuesday 30 April	Design and create admin page	3 hours	5 hours
Wednesday 1 May	Daily Stand up	30 mins	30 mins
Thursday 2 May	Sprint 1 Review Meeting	2 hours	2 hours
Thursday 2 May	Sprint 1 Retrospective Meeting	1 hour	1 hour
Thursday 2 May	Sprint 2 Planning Meeting	1 hour	1 hour
Saturday 4 May	Daily Stand up	30 mins	30 mins
Sunday 5 May	Research Wix Corvid API	1 hour	1 hour
Monday 6 May	Design and create form for admin to add health care professionals into database	3 hours	4 hours
Tuesday 7 May	Daily Stand up	30 mins	30 mins
Thursday 9 May	Sprint 2 Review Meeting	2 hours	2 hours
Thursday 9 May	Sprint 2 Retrospective Meeting	1 hour	1 hour