



SPORTS CMS PROJECT

AGILE PHASE THREE REPORT
OCTOBER 2019

Index

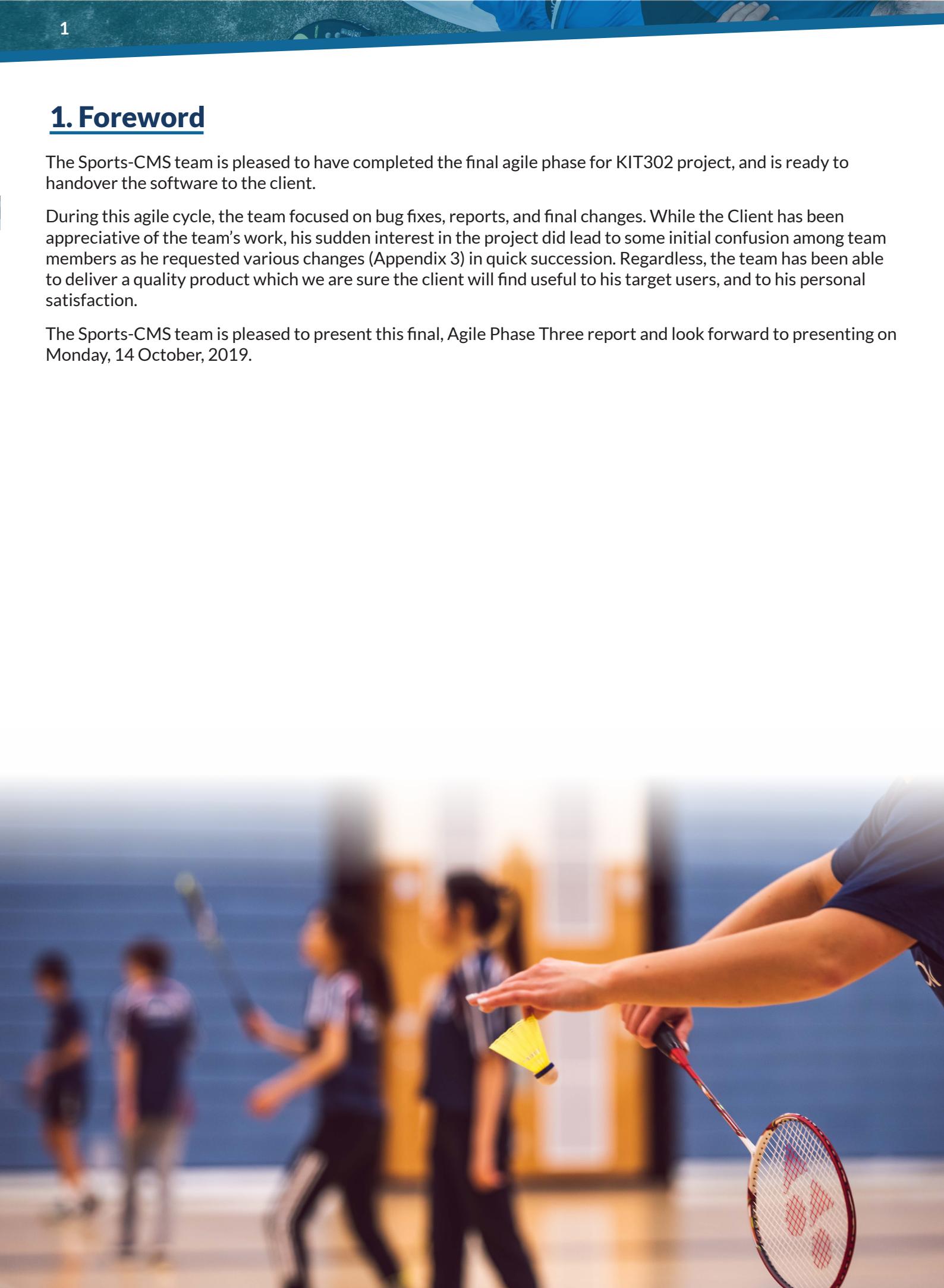
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1. Foreword

The Sports-CMS team is pleased to have completed the final agile phase for KIT302 project, and is ready to handover the software to the client.

During this agile cycle, the team focused on bug fixes, reports, and final changes. While the Client has been appreciative of the team's work, his sudden interest in the project did lead to some initial confusion among team members as he requested various changes (Appendix 3) in quick succession. Regardless, the team has been able to deliver a quality product which we are sure the client will find useful to his target users, and to his personal satisfaction.

The Sports-CMS team is pleased to present this final, Agile Phase Three report and look forward to presenting on Monday, 14 October, 2019.



2. Site usefulness and ease of use

Software history is littered with projects which met functionality requirements, but failed to design a useful, user friendly interface. Even in corporate environments where users may be forced to use specific software packages with impressive functionality, users will abandon the product in favor of a more useful, easy to use product. Designing software for usefulness and ease of use is essential in creating a user experience which makes users want to re-use the software.

The team's site design was formed on the requirement that two major themes are to be delivered:

1. The site design and functionality will support users in;
 - a. Delivering event/match results
 - b. Providing players with ratings based on event/match results
 - c. Viewing player ratings
2. A commercial quality site which showcases the client's rating algorithm

To provide design congruency in these dichotomous themes (sports and mathematics), the team utilised several design elements which would support usefulness and ease of use to target users.

2.1 Target users

The following user groups are identified as site stakeholders. Site design and functionality will facilitate the ease of use and usefulness to complete these tasks.

User group	Primary task	Estimated site traffic
Client & Administrators	Commercialisation and administration	10%
Tournament Directors	Club maintenance and uploading of events	25%
Club players	Viewing event and player information	65%

2.2 Facilitating design elements

When facilitating the needs of target users, the team focused on the key themes for each group. The usefulness and ease of use targets these themes:

2.2.1 Client & Administration

1. May set club upload-event expiry dates pending payment
2. Have access to all club data
3. Can administer all site functionality

2.2.2 Tournament Directors

1. Can upload events and match data
2. Can view and edit club data, including recent events and club players
3. Can make administrative changes to the club

2.2.3 Club Players

1. Can view player information
2. Can view club information
3. Can view event information

2.2.1 Client & Administration

The screenshot shows the 'Administrator Requests' panel with a single item: 'Locked Account (locked@account.com) requests their account to be activated.' It includes 'Approve' and 'Deny' buttons. A red circle with the number 3 is positioned over the 'Deny' button.

The 'Administrator Details' panel shows a single user: 'Name: Admin Admin, Email: admin@admin.com'. It includes a 'Demote' button. A red circle with the number 2 is positioned over the 'Demote' button.

The 'Search for a Club' panel has a search bar and a table with columns 'Club', 'Region', and 'Expires'. It lists two clubs: 'Launceston Badminton Club' (Tasmania, Australia) and 'Otago Squash Club' (Otago, New Zealand). Each club entry has a date input field and an 'Update' button. A red circle with the number 1 is positioned over the 'Expires' column header.

1. May set club upload-event expiry dates pending payment

The site owner wishes to monetise the system to help pay for server, software, and other operational expenses. To do this, the site owner is provided with several useful features which improve the usability and ease of use to achieve this goal:

1. Clubs can have their expiries amended at the site owner's discretion. This is useful to suspend accounts which may be in question, or in future, as an option to extend club site subscription, should the client wish to implement this payment system.

3. Can administer all site functionality

It is essential that non-technical users such as the site owner and Administrators are capable of administering all tasks which allows the site to be maintained in working order.

2. Administration and requests are available to easily promote, demote and approve or deny requests for administrator or tournament director privileges. These design features provide administrators complete oversight of user capabilities.

3. New registrants to the site are automatically locked, allowing administrators the ability to filter inappropriate accounts. This process minimises the time required to administer accounts.

2.2.1 Client & Administration

The screenshot displays three separate management panels:

- Tournament Directors:** Shows a single entry for "Test User" with email "test@user.com". A "Remove" button is visible.
- Club Members:** Lists six members with details like Name, Gender, DOB, and Rating. Buttons for "Edit" and "Remove" are provided for each member.
- Recent Club Events:** Lists six events with details like Name, Type, Date, and Country. Buttons for "Edit" are provided for each event.

2. Have access to all club data

Access to all club data allows administrators and the site owner the ability to assist tournament directors quickly, and efficiently.

1. Administrators have access and the ability to modify all club information. This can be used as a tool to assist clubs, or revert malicious actions by former club directors who have not been removed from the system.

2. Each club management component works independently of one another. This allows an administrator the ability to adjust different club components independently. For example, “Launceston Badminton” players, while simultaneously being able to modify “Devonport Badminton” Tournament Directors. This would allow the Administrator to remove a player from one club and promote them to a director in another club.

2.2.2 Tournament Directors

The screenshot shows the 'Event Details' section of the tournament director interface. It includes fields for Event Name, Location, Date, Sport, Discipline, Region, and a dropdown for Otago. A red circle labeled '1' points to the 'Add Matches' button. Below this, there are two 'Match details' sections. Each section has fields for Winning Player, Set Score, Losing Player, Set Score, and a Delete button. A red circle labeled '2' points to the 'Advanced Search' link under the first section. A red circle labeled '3' points to the 'Can't find a player? Add them here' link under the second section. At the bottom, there is a link 'Need more matches? Click Here' and a 'Submit Event' button.

1. Can upload events and match data

The primary task of a tournament or event director is to upload events and matches. To improve the ease of use and usefulness of this task, several design features were included in the event upload page. These include:

1. The ability to pre-define how many matches were played. This feature will minimise repetitive actions such as adding matches, particularly when there may be dozens of matches in an event.
2. Autosearch for players who play in the uploader's club or are located in that region. This will minimise the time spent trying to find players.
3. If a new player has joined the club, or has been missed when the club was registered, the tournament director may add them at this location. This will prevent tournament directors from having to leave the page to add the player to the club administration page.

2.2.2 Tournament Directors

Club Management Example Tennis Club

Name: Example Tennis Club Sport: Tennis Country: Australia State: Tasmania

Tournament Directors

Name	Email	Action
Test User	test@user.com	(circled with red number 3)

<< 1 >> Add Director

Club Members Devonport Tennis Club

Name	Gender	DOB	Rating	Action
Aaron Jason	M	31 January 1964	849 ± 25	
Alexandra Weaving	F	03 February 1952	420 ± 25	
Ashton Wheelwright	M	04 September 2001	912 ± 25	
Braxton Redding	M	08 April 1992	221 ± 25	
Charlie King	F	12 June 1968	474 ± 25	
Claudia Robertson	F	10 July 1960	407 ± 25	

<< 1 2 3 4 5 >> Add Existing Player Add New Player

Recent Club Events Devonport Tennis Club

Name	Type	Date	Country	Action
DevonportTennisEvent14	Single	06 September 2019	Australia	
DevonportTennisEvent18	Single	06 September 2019	Australia	
DevonportTennisEvent22	Single	06 September 2019	Australia	
DevonportTennisEvent26	Single	06 September 2019	Australia	
DevonportTennisEvent30	Single	06 September 2019	Australia	
DevonportTennisEvent2	Single	06 September 2019	Australia	

<< 1 2 3 4 5 >>

2. Can view and edit club data, including recent events and club players

Access to club data allows tournament directors the ability to add, edit, and view their club and player's data.

1. Club and tournament directors have access and the ability to modify all club information. This removes the necessity for the site owner to micromanage each individual club.

2. Clubs may edit events retrospectively. Editing an event means that tournament directors can correct any mistakes which are then recalculated by the site. Not only does this improve the system's accuracy, it removes the need for the site owner to perform any manual tasks.

3. Can make administrative changes to the club

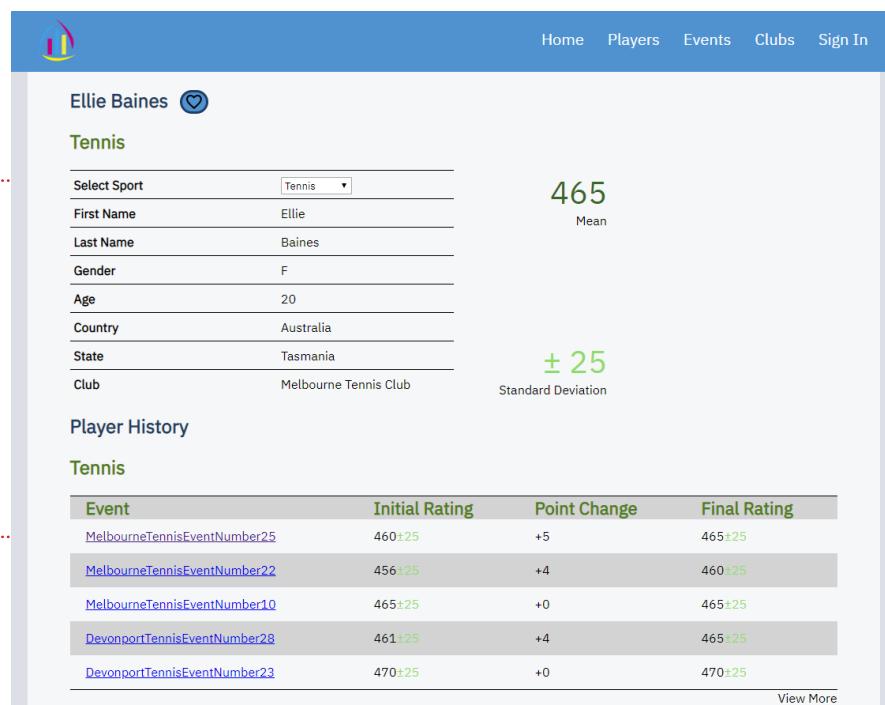
To provide club and tournament directors total control over their club, they are given additional privileges as to who has control over their online presence.

3. Club and tournament directors may promote or remove other directors who are not currently associated with other clubs. This feature was designed on the premise that the site owner would not want to intervene in club disputes or be required to manage clubs on the club pr tournament directors behalf.

2.2.3 Club Players

1

Player	Age	Last Played	Club	Region
Parker Elijah	17	06 September 2019	Melbourne Badminton Club	Australia, Tasmania
Parker Elijah	17	06 September 2019	Devonport Squash Club	Australia, Tasmania



1. Can view player information

Players may wish to view their own, or others information on the site. Site traffic is expected to be largely derived of players wishing to perform this task, and so a great deal of effort has been put into ensuring that design for this functionality is both useful and easy to use.

1. The ability to search for players who fit one, or many criteria allows players to search for a specific person, or group of people. This will be useful for those who may be searching for clubs who host people of similar ages or abilities in their local region.
2. If a player should play more than one sport, it is easy to view the ranking of those sports by simply selecting which set of sports data you wish to view. This design element minimises the time spent by users to search the site for the information they need.
3. Players may view the results of their most recently played matches. The ability to view all aspects of captured player data in one location means that users can “favourite” players and quickly find all player information in one convenient location, at the click of a single button.

2.2.3 Club Players

1 Search for a Club

Search club: Example Tennis Club, Launceston Tennis Club

Club	Sport	Region
Example Tennis Club	Tennis	Tasmania, Australia
Launceston Tennis Club	Tennis	Tasmania, Australia

2 Launceston Tennis Club

Tennis
Tasmania, Australia

Club Members List		
Player	Age	Last Played
John Smith	29	06 September 2019
Logan Irwin	66	06 September 2019

2. Can view Club information

Players may wish to view clubs listed on the site. Easy access to club information will help users find which players are associated with which clubs for comparative purposes.

1. While the site retains a significant amount of club information, only essential club information is shown to reduce “information spam”. The club search system utilises a consistent design theme for the purpose of user ease of use.
2. Club members are shown, and their profiles linked to the club member list. The relationship between clubs and players helps provide a sense of community on the site.

3 Search for a Event

Search event: DevonportBadmintonEventNumber8, LauncestonBadmintonEventNumber30

Event	Club	Date	Type	Region
DevonportBadmintonEventNumber8	Devonport Badminton Club	06 September 2019	Single	Tasmania, Australia
LauncestonBadmintonEventNumber30	Launceston Badminton Club	06 September 2019	Single	Tasmania, Australia

4 DevonportBadmintonEventNumber8

Devonport Badminton Club
Singles
06 September 2019
Tasmania, Australia

Lily Magrath	defeats	Marcus Evison	
Previous Ranking:	479 ±25	-	931 ±25
Ranking Change:	+5	-	-18
New Ranking:	484 ±25	-	912 ±25
Set Score:	5	-	4

3. Can view Event information

Players may wish to view events listed on the site. Outside of player profiles, the team believes that event results will be the next primary task of players using the site.

3. As events may have non-descriptive titles (e.g. “State Masters Finals”), event searches provide additional information to users to help identify which event they are searching for.
4. Keeping a player-focused approach to events helps maintain interest, and improves the sites overall usefulness to both the client and clubs.

2.3 General Ease of Use Principles

The following general site principles were followed to improve the user experience and ease of use:

1. All site features are accessible within three clicks. Functions and tasks which require three clicks or less to complete follow the “three click rule” - that users will not use a site if they are required to perform more than three clicks to perform any given task
2. When presenting club and event information, names and regions only are shown to improve readability, while still ensuring accuracy in determining the correct club and event
3. Hidden filters are implemented within all search code to provide improved search heuristics; such as searching for clubs, events and players local to the user’s region
4. Site layout is designed to provide the most commonly used functions to the user first. For example, as Administrator’s are most likely to login with the intention of administering the site, administration functions are located at the top of the page. This design feature will minimise the time required for administrators to perform their primary tasks
5. All player, club, event, and administration functions are located in individual pages, allowing for quick and rational site navigation
6. All pages follow a consistent colour, layout, and text theme. This follows Don Norman’s design principle of consistency
7. Colour coding helps users quickly navigate to the correct page section. The site’s colour coding follows Don Norman’s design principle of consistency
8. To improve visibility, each page containing hundreds of fields of data (e.g. player searches) are limited to the first twenty results only. Additional elements can be accessed via the page numbers listed underneath each section. This element follows Don Norman’s design principle of visibility.



3. Technical Development

Over the past six weeks the team has worked together to achieve the outcomes and user stories negotiated within the phase 3 project timeline. These achievements are described below.

3.1 Achievements to date

The following table represents the completion of phase two tasks (at time of writing). If tasks are not fully completed, a note is provided as to the reason:

Table 1. Phase three development task completion

Phase 3		
Item Type	Completion Status (%)	Notes
Site layout	85	
Final site artwork	100	
Player graphs	50	Code for player graphs exists within the site, however requires implementation.
Advertising banners	100	This was changed to subscription at the clients request
URL parsing	0	Due to the use of profiles information passed between HTML, this is not possible (technology decision)
Site policies	100	
Advanced user functionality	100	
Owner Ad banner change	100	This was changed to subscription at the clients request
Admin content change	100	
Player e-mail notifications	100	
Password reset	100	
Site infrastructure	100	
Server initial setup	100	The following tasks must be completed upon the website going live
Google analytics	90	To be completed over weekend
Security testing	90	To be completed over weekend
Live website	90	To be completed over weekend
Database	90	
Maple recalculation scheduler	100	
Integration	100	
Fixes from phase one & two	100	All previous outstanding items were completed in this phase

The following technical developments were undertaken during the phase three development cycle and provide further insight into the technical development of the site.

Website

The website was built from the ground up, utilising a combination of common web technologies such as HTML, CSS, PHP, SQL, Javascript and Ajax. There have been considerable programming additions made to the original files of these languages to allow the team to apply the more advanced functionality of the site.

The major functions completed in this phase of the project are:

- Additional search functions and multi-variable filtering including advanced search functions
- Match and event re-upload
- Club expiry page
- Pop-overs for user help-guides
- Implementation of “player favourites” feature
- Player doubles team page
- Edit Events function

Site content

Site content, such as images, logos, links and worded content has been completed.

Peter has provided site Terms and Conditions, and Privacy Policy.

Database

The site database was completed in phase one. Database inputs, such as match uploads has been achieved.

Maple

The final version of Maple code has been provided by Peter and integrated with the site.

Server

The server, domain name and registration, and site set-up has been completed, and the site is now live and available for viewing on the internet.

Examples of work

The following figures display some of the works achieved during this development cycle.

Figure 1 - Final site artwork



Figure 3 - Administration features

Administrator Requests	
Requests Locked Account (locked@account.com) requests their account to be activated.	
<input type="button" value="Approve"/> <input type="button" value="Deny"/>	
<input type="button" value="<<"/> <input type="button" value="1"/> <input type="button" value=">>"/>	

Administrator Details	
Name	Email
Admin Admin	admin@admin.com
<input type="button" value="Demote"/>	
<input type="button" value="<<"/> <input type="button" value="1"/> <input type="button" value=">>"/>	



Figure 4 - Popover assistance

Event Detail

Step 1
Enter your event details in the fields above. Remember, all fields are compulsory to submit the event!

Step 2
Pre-fill the page with your event matches by entering the required number of matches into 'Number of Matches'. Finally, click 'Add Matches' to begin entering match details.

Note: If you make a mistake, don't worry - you can always add or delete additional matches by clicking 'Add more matches' at the bottom of the page, or the 'Delete' button next to each match.

Step 3
In Match Details, enter details of each match such as the winning and losing player names - if the player exists in our system they will be shown in a drop down menu. If you can't find a player, select 'Advanced Search' - this will find players registered outside of your region. Still can't find them? Select 'Add them here', and fill in their player details.

Step 4
Double check your event details, and click the 'Submit event' button to upload the details. Results will be available to players shortly.

Figure 5 - Club expiries

Club Management			
Name: Example Tennis Club	Sport: Tennis	Country: Australia	State: Tasmania
Tournament Directors Name Email Test User test@user.com <input type="button" value="Remove"/>			
<input type="button" value="Add Director"/>			
<input type="button" value="<<"/> <input type="button" value="1"/> <input type="button" value=">>"/>			

Club Members			
Devonport Tennis Club	Search Club Players.. <input type="button" value="Search"/>		
Name	Gender	DOB	Rating

Search for a Club			
Club	Region	Expires	
Launceston Badminton Club	Tasmania, Australia	dd/mm/yyyy	<input type="button" value="Update"/>
Otago Squash Club	Otago, New Zealand	dd/mm/yyyy	<input type="button" value="Update"/>

3.2 Technical difficulties and scheduling

As per 3.1 Achievements to date: *Table 1* most tasks have been completed to a high degree.

The team is **did not complete** the following tasks:

- Player graphs
- Advertising banner ads (changed at client's request)
- Compatibility with mobile devices (identified in phase two)

The team found that many of the features listed above were just outside of our scope for time. For example, graph code exists within the site, however would require at least two further days to implement.

Upon reflection, the team would have scheduled more technical development for phase one, and less for phase three. However, the team is pleased with the outcome of the project.

3.3 Identified constraints

Two major constraints were identified during this phase of the project:

- 1) As semester comes to a close, time constraints led to a strained technical development period as lengthy non-technical tasks such as 100-plus page user and technical manuals were required, as well as major assignments for other subjects.
- 2) The client became particularly vocal during this phase of the project, which was notably vacant during the first two phases. While our Client Liason, Adib, made very good progress in quelling the frequent change requests, the team felt some pressure to appease the client by making several, minor changes. At time of writing however, the client appears to be pleased with the site.



4. User Testing

User & Technical tests were constructed to satisfy the successful completion of the following user stories below:

Table 2. User stories tested

Green = Full user story tested Phase 1

Magenta = Full user story tested Phase 2

Blue = Full user story tested Phase 3

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30
31	32	33	34	35
36	37	38	39	40
41	42	43	44	45

The data received from these tests was used to inform the test team of future changes to the project, and to ascertain the progress of those tested user stories.

4.1 Methodology

The methodology used to formulate and deliver tests consisted of five key phases;

- 1) Preparation
- 2) Introduction
- 3) Test
- 4) Post-test questionnaire
- 5) Debriefing

1. Preparation

Tests were formulated based upon the user stories developed in the Project Planning report and the capability to deliver those tests based upon the deliverables expected to be achieved by the end of the project phase three schedule.

A total of four individuals (one male, three females; aged 33 ± 16 years) were enrolled for testing. Subjects were selected based on having either one or more of the following characteristics:

- 1) Selected by the team manager as a potential site user - three subjects
- 2) A sports or tournament owner or director - one subject
- 3) Experience with sports sites or a general interest in sports ratings - one subject

Test subjects were sourced and informed of a location, date, and time for testing.

A mixture of both quantitative and qualitative assessments was developed for each test. Given the small user sample size, qualitative assessments were considered by the project team to be a useful controllable output for our consideration; a larger subject sample size would have likely resulted in a larger proportion of quantitative assessments.

2. Introduction

Test subjects were introduced to the test team and asked to provide their personal details and participation consent by way of signing a test waiver form. Subjects were told the purpose and length of the tests. Subjects were also informed that the testing would provide subject deidentified data to the team for development purposes.

3. Test

Subjects were provided with a PC with the Sports CMS website operating and given a new task once the previous task was completed. Subjects completed a total of seven tasks each. Subject feedback was provided to the testing team for recording at the end of each testing scenario. Testing was carried out in the Computing building of UTAS and the Launceston Leisure & Aquatic Centre.

Test questions are provided in the [Appendix](#). Test results are provided in section 4.2 *Analysis, reflection and summary of results*.

4. Post-Test Questionnaire

Subjects were provided with a post-test questionnaire which consisted of a series of both open, and closed questions such as:

- If you could change one thing about the site what would that be?
- Would you use this site yourself? – Yes or no

The results of these questionnaires are provided below.

5. Debriefing

Testing concluded with a debriefing where the test team asked test subjects about testing and if they had any further questions. Test subjects were thanked for their time in assisting us with testing and provided with our contact details for any further correspondence required.

4.2 Analysis, reflection and summary of results

The following results were received from users in user testing:

Test 1 - Pass rate: 100%

Goal: Completion of this task will assess the site owner's ability to renew club registrations.

Subject comments: Subjects were able to easily identify where to change club expiries. One subject found the system non-intuitive to have the club's expiry shown in the expiry update button.

Changes as a result of the test: N/A

Test 2 - Pass rate: 100%

Goal: Completion of this task will assess players or user's ability to search for site policies.

Subject comments: Subjects were able to easily find these pages once they discovered the footer. As the footer has not been used for site functions, subjects were not familiar with using it in general.

Changes as a result of the test: N/A

Test 3 - Pass rate: 100%

Goal: Completion of this task will assess Tournament Director's ability to edit events

Subject comments: Subjects were able to edit events. Subject commented that it was nice that the fields were pre-loaded with previous data, making it easier for them to see where they had made a mistake.

Changes as a result of the test: N/A

Test 4 - Pass rate: 100%

Goal: Completion of this task will assess the user's ability to view player ratings for each sport.

Subject comments: Users found that finding player's sports and ratings was simple and useful. One subject believed that the location of the button should be more central as a key component of player profiles.

Changes as a result of the test: N/A

Test 5 - Pass rate: 75%

Goal: Completion of this task will assess users ability to "favourite" a player

Subject comments: Users generally found this feature easy to use, however two found it difficult to retrieve the favourited player information, with one failing to complete the task. A lack of information of where to view favourited players is an issue with this feature.

Changes as a result of the test: N/A - A popover next to "favourite" could appear to inform users how to retrieve favourited players.

Test 6 (retest) - Pass rate: 100%

Goal: Completion of this task will assess Administrator's ability to demote another Administrator or remove another Tournament Director from any club.

Subject comments: Users found the system simple to use, however did not understand why they couldn't add anyone. Some subjects requested better instructions to help users see why they could not add other tournament directors to their club, as it may appear to first time users that the system is not working as anticipated.

Changes as a result of the test: N/A

Test 7 (retest) - Pass rate: 100%

Goal: Completion of this task will assess Tournament Director's ability to easily and efficiently upload match data.

Subject comments: Users found the page easy to use, however found that it appeared quite "wordy". It was recognised that while the wording made it easy for first time users, it may become a nuisance for experienced users in time. One subject who was involved in previous testing that the functionality had been greatly increased since the last test, and was much easier to use this time around.

Changes as a result of the test: N/A

General Comments

Test subjects found the site generally easy to use with some minor exceptions. Some subjects felt like the site had implemented rules which are not obvious to users. An example of this being that tournament directors cannot be added to a club's management if they are already part of another club.

However, subjects stated that the site would be useful for its intended audience, and that with some experience using the site, these issues would not be of significant concern for regular users. One subject who was involved in previous tests discussed that changes were generally positive and felt that the team had responded to their feedback in prior tests.

5. Technical Testing

Technical tests were constructed to satisfy the successful completion of the user stories shown in 4. User Testing - Table 2. User stories tested. The data received from the following tests were used to inform the test team of future changes to the project, and to ascertain the progress of those tested user stories.

5.1 Methodology

Technical tests were developed and initiated in a white box testing environment.

Some minor tests were performed on site input to ensure all bugs/glitches were revealed during the earlier stage of development.

Technical testing was conducted by the programmers, with tests developed by various members of the team to ensure tests were not encapsulated to each tester's knowledge domain. As the final testing cycle for this project, some tests were retested from former cycles which either failed, or had changed in scope.

Test questions are provided in Appendix 2. Test results are provided in the following section.

5.2 Analysis, reflection and summary of results

The following results were received during technical testing:

Test 1 (retest) - Success: Pass

Goal: Completion of this test will ensure the integration between the web site server side code (PHP) integrates with maple code. This test occurred on a live server compared with previous tests performed on a local host machine.

Test Comments: A number (20 specifically for this test) of events were uploaded to the server. For each match the expected rating and standard deviation were calculated using the clients original unedited code. The result of each match was compared with the expected result.

Result: The output of maple was stored in the database and it's result matched the expected output.

Changes as a result of the test: N/A.

Test 2 (retest) - Success: Pass

Goal: To ensure no lag is present when maple is executed and that this continues to be the case when multiple events are uploaded in quick succession. This test occurred on a live server compared with previous tests performed on a local host machine.

Test Comments: Twenty events were pre-filled to allow them to be uploaded to the server in quick succession. As maple can take in excess of 60 seconds to execute and events must be processed in order of upload the queue of pending maple jobs was monitored throughout the test.

Result: No noticeable lag was observed for any of the match uploads. The queue of events was executed sequential. Total time for 20 events to be processed was under one minute, compared with four minutes in previous tests.

Changes as a result of the test: N/A.

Test 3 - Success: Pass

Goal: Completion of this task will assess the site's ability to correctly display search results among all search fields available on the site.

Test comments: All search fields work as intended. The exception was a minor bug discovered on the "Events" page which also listed events not in the local region.

Changes as a result of the test: Minor correction to the "Events" search page to constrain search results.

Test 4 - Success: Fail

Goal: Ensure that player graphs reveal the appropriate data.

Test comments: Test unable to be completed as graph implementation has not been completed.

Changes as a result of the test: N/A

Test 6 - Success: Pass

Goal: Completion of this task will ensure the correct privileges are given to each administration type

Test comments: Tournament Directors are unable to access Administrator functions, and Administrator's are unable access Site Owner functions.

Changes as a result of the test: N/A

Test 7 - Success: Pass

Goal: Completion of this task will ensure that interactive elements do not generate unintended consequences.

Test comments: Testing of interactive elements (buttons, searches etc.) work as intended.

Changes as a result of the test: N/A

Test 8 - Success: Mostly Pass

Goal: Completion of this task will ensure that the site works as anticipated with all common web browsers.

Test comments: The site works as intended on Safari, Chrome, Firefox, and Microsoft Edge. Graphical issues were noted on Internet Explorer, and logged in the user manual.

Changes as a result of the test: N/A

General Comments

All technical tests passed, with the exception of the player rating graph as graphs have not been implemented as intended. Retests revealed that site functions worked as anticipated, despite considerable changes since Phase two.

The team notes that many site functions and technical aspects rely on third party software and libraries. This software includes: Javascript, Jquery, Ajax, PHP, HTML, CSS, Maple and MySQL. Many of these software packages and libraries are included within the site, and do not require updating, however it is noted that future releases of these items may not be compatible with the site.

As such, the team recommends that regular site maintenance and testing occur to ensure that it remains compatible with modern devices and software packages.

6. Client feedback

The client was engaged in later stages of development to provide site feedback.

6.1 Interview

Upon reviewing the site with members of the team, the following questions were provided to the client to gauge feedback:

1. What do you like about the site?

The Client liked the overall look and feel for the site. He specifically mentioned that it looks much better than its rival, RatingsCentral.com and that he felt users would use the site for that reason. The Client also noted that he appreciated that we had made changes to some of the match upload functions by actioning his request to implement set scores in the match upload page.

2. What could be improved about the site?

The client suggested that:

1. Badminton and Squash images on the home page - this has been completed
2. On the event page, the client wanted to change the type in 'Singles' and 'Doubles' instead of 'Single' and 'Double' - this has been completed
3. Another link/page (like FAQ) which describes who Tournament Director/Administrators are, and what their responsibilities are.

3. Are you pleased with the progress so far?

The Client stated that he was pleased with the site and thanked the team for our efforts in developing it.

6.2 Reflection

The team feels that the Client's requests for changes were mostly achievable, and many have been completed so far. The team looks forward to presenting the site to the Client on Monday, 14 October.

7. Changes between cycles

The site has undergone several significant changes throughout its development period. The two most significant changes were in Administration and Event-Upload design. These pages were changed iteratively between Agile cycles to become almost unrecognisable from their original design. However these pages have been shaped almost entirely by the user feedback received in testing, and are now noted as being functionally powerful for users.

During phase one and two, several pages did not maintain consistent styling elements. While the site's look and styling has not changed significantly, during phase three the team focused on maintaining a consistent design pattern for each page which has led development to produce a consistent site feel.

The team feels that it made the right decision in not developing concrete designs which may have produced a less agile, user-focused site; as concrete designs may have inhibited the teams willingness to adapt to user feedback.

8. References

Computer users Statement Sub-Image

<https://www.pexels.com/photo/two-people-holding-macbook-pro-1181275/>
pexels-photo-1181275.jpeg

Tennis Sub-Image 2

<https://www.pexels.com/photo/close-up-photo-of-person-holding-tennis-racket-and-ball-1432039/>
pexels-photo-1432039.jpeg

Tennis Sub-Image

<https://www.pexels.com/photo/man-lying-beside-on-green-tennis-balls-1103833/>
pexels-photo-1103833.jpeg

Project Background Sub-Image

<https://www.pexels.com/photo/action-adult-athlete-business-341003/>
pexels-photo-341003.jpeg

Header Image 2

<https://www.pexels.com/photo/photo-of-group-of-people-in-a-meeting-1661004/>
pexels-photo-1661004.jpeg

Header Image 3

<https://www.pexels.com/photo/computer-desk-electronics-keyboard-238118/>
pexels-photo-238118.jpeg

Header Image 4

<https://www.pexels.com/photo/ball-court-design-game-209977/>
pexels-photo-209977.jpeg

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