

**USER-CENTRED DESIGN
APPLICATION PROTOTYPE DESIGN - PART 1**



WHYPHY

Work hard? Yes! Play hard? Yes!

TheFABones

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INTRODUCTION

About this app

RMIT is a large university with more than 84,000 students across multiple campuses in Melbourne. Naturally, there are a huge number of clubs with a lot of activities and events run by students for students. These include various areas of interest such as academic clubs, social and special interest clubs, sports clubs as well as various networking events. Therefore, it is crucial to have a mobile application to help manage and popularize these activities and events to every student.

WHYPHY is an iOS mobile application aiming to provide features to encourage students to be active and more involved in the university life. Furthermore, it provides features to motivate students to stay fit and healthy while excelling in their studies. This is achieved by stimulating students' interests in participating in the club activities and events. This application would provide an easy way for students to discover and navigate upcoming events and club activities. Moreover, it will provide students an efficient way to communicate within a large community as well as motivate them to participate in fitness activities and a function for the club staff to keep track of events and activities.

Why WHYPHY?

The application name WHYPHY is the abbreviation of the slogan "Work Hard? Yes! Play Hard? Yes!", which encourage students in RMIT to engage in the RMIT community and raise awareness about cycling and fitness activities. We think the more work-life balance they have, the more successful they will be in the future.

Features

Event tab Where students can find the latest activities and events on campus as well as register or unregister for those events.

Community tab Provide users effective ways to engage in the RMIT community. Students can discover new clubs to join and get updates of their clubs.

Health tab Designed for fitness activities, allows students to keep track of their progress in exercising and cycling. Gamification feature includes accumulation of points and badges to motivate participants to engage in exercises regularly to level up their badges.

Profile tab A way for students to view, change and modify their profile settings and details.

Notification Acts as a personal assistant to users' so that they can easily be aware of upcoming events.

Message Included along with the Notification section. Students can send and receive messages from friends or groups, as well as create personal or group meetups.

We hope that the application will play a role in increasing the awareness of clubs' activities and events and helping RMIT students to be more active in developing their interpersonal skills as well as employability skills to get ready for their future works.

USER GROUPS

Beginner Member

Consists of International students as well as first-year students who are unfamiliar with club activities in the university. They are curious about clubs and various sports activities and are interested in joining them. A majority of the people in this user group does not know which activities they want to join nor how to join them.

DEMOGRAPHIC	EXPERIENCE	SKILLS & USAGE HABITS	GOALS	TASKS
1st-year, international students Age: 18 – 20	<ul style="list-style-type: none">- Tech familiar- Unfamiliar to club activities- Familiar to gamification	<ul style="list-style-type: none">- Uses smartphones, messaging applications & social networks.- Participates in events occasionally.	<ul style="list-style-type: none">- Make new friends- Familiarised with university life- Keep body fit and healthy	<ul style="list-style-type: none">- View, search for clubs and events- Register, unregister events- View, modify profiles- Gamification in fitness, exercise

Energetic Member

Includes students who are active and have an undying passion for extracurricular activities. They are involved in many activities in the various clubs and are capable of inspiring other students to join and participate in club activities.

DEMOGRAPHIC	EXPERIENCE	SKILLS & USAGE HABITS	GOALS	TASKS
Any students Age: 18 – 25	<ul style="list-style-type: none">- Tech savvy- Passionately engaged in club activities- Experienced with gamification- Play sports and exercise frequently	<ul style="list-style-type: none">- Uses smartphones, messaging applications & social networks- Have good communication skills.- Participates in events occasionally.	<ul style="list-style-type: none">- Develop interpersonal, employability skills- Communicate with like-minded people- Keep body fit and healthy	<ul style="list-style-type: none">- View, search for clubs and events- Register, unregister events- View, modify profiles- Gamification in fitness, exercise- Send, receive messages

Club Staff

Students who are involved in managing clubs, organizing events and activities. They will use the application to promote and manage club activities.

DEMOGRAPHIC	EXPERIENCE	SKILLS & USAGE HABITS	GOALS	TASKS
Any students Age: 18 – 25	<ul style="list-style-type: none">- Tech savvy- Accustomed to club activities- Experienced with gamification- Playt sports and exercise frequently	<ul style="list-style-type: none">- Uses smartphones, messaging applications & social networks.- Organize events and activities frequently.	<ul style="list-style-type: none">- Encourage students to participate in events & club activities- Promote cycling other fitness activities- Find an easy way to communicate with students- Enrich students' life	<ul style="list-style-type: none">- View and edit events- Manage club and event activities- Send message and updates- Register, unregister events- View, modify profiles- Gamification in fitness, exercise

Casual Member

Consists of part-time students and mature students who aren't quite familiar with the life at the university but who shows keen interest in the participation of some extracurricular activities. They are aware of the benefits of club activities, but they do not have time to participate in every single activity. Therefore, they are more likely to choose club activities according to their limited preferences.

DEMOGRAPHIC	EXPERIENCE	SKILLS & USAGE HABITS	GOALS	TASKS
Part-time and mature students Age: 18 – 45	<ul style="list-style-type: none">- Tech familiar- Familiar with club activities- Rarely engages in sports activities	<ul style="list-style-type: none">- Uses smartphones, messaging applications & social networks- Rarely participate in school events.	<ul style="list-style-type: none">- Make new friends- Develop interpersonal skills- Explore university life- Keep body fit and healthy	<ul style="list-style-type: none">- View, search for clubs and events- Register, unregister events- View, modify profiles- Send, receive messages- Gamification in fitness, exercise

PERSONAS & CONTEXT SCENARIOS

Michael Keaton

"Join the club! Get free drinks!"

User group: Club staff

Background

- 22 years old
- 3rd year Bachelor of Business (Management) student in RMIT
- Lives in the Central Business District of Melbourne
- President of the RMIT Student Union

Needs and Goals

- Know all of the club and member activities
- Get more people to know about clubs in the university
- Help and support all clubs and their members
- Encourage and motivate members to improve their health



Skills and Experiences

- Advanced knowledge in technology
- Plays Basketball at least once a week
- Experienced in organizing large events
- Displays great leadership qualities

Context Scenario

One fine morning, Michael opens WHYPHY and checks activities and events for the day along with the upcoming events of the week. He notices that The Programming Club, which is an RMIT Student Union affiliated club, has fewer attendees for their weekly workshop. Therefore, he sends a quick message to the President of The Programming Club using the message icon, notifying them of the shortage of attendees and encourages them to take steps to increase their attendance rate by assuring them that the student union is willing to help and support them. Then he starts the day by cycling to the university, as usual.

Natasha Romanoff

"WE CAN DO THIS!!!"

User group: Energetic member

Background

- 19 years old
- 2nd year Bachelor of Communication student in RMIT
- Lives in the suburbs of Melbourne
- Committee member of the Cycling Club of RMIT
- Swimmer

Needs and Goals

- Balancing study and life
- Get informed about upcoming club activities
- Communicate with like-minded people and expand her social groups
- Exercise regularly and maintain her health

Skills and Experiences

- Average knowledge in technology
- Great communicating skills
- Good sportsmanship
- Has experience in working with teams



Context Scenario

One exhausting Saturday afternoon, just after finishing up an assignment, Natasha logs on to WHYPHY and casually browses through upcoming events. She spends a few minutes chatting with her friends on the "SWIM SWIMMING SWAM" group chat and realizes that she should be productive and use her time effectively and efficiently. Therefore, she decides to go to the local Sports Complex. Before she goes to the Sports Complex, she decides to check her progress on her Health Log and logs in her cycling details from the previous day using the log function. Then, a message pops up saying that she has leveled up in her fitness level saying "SUPER DUPER! YOU'VE REACHED THE FLEX GOD LEVEL!".

Motivated by this, she creates a meet up encouraging her friends to join her swimming session in the evening. Then she decides that instead of taking the bus to the Sports Complex, she should cycle to her destination. She excitedly grabs her swimming bag and cycles to the local Sports Complex.

Amarey Bello

"Uhh... Whaaaaat is going on?"

User group: Beginner member

Background

- 18 years old
- 1st-year Diploma of Languages student in RMIT
- Lives in a student apartment near the university
- Currently not a member of any club



Needs and Goals

- Find new clubs to join based on interest
- Get motivated to be healthy
- Get involved in university life

Skills and Experiences

- Familiar with technology
- Familiar in using social network applications
- Limited experience in club activities and organized sports
- Limited networking skills

Context Scenario

Amarey is an international student who has just started her first year at RMIT University, city campus. She still hasn't registered for any club nor event as she is a bit shy when it comes to socializing. She decides to improve her communication skills by networking with people and engaging in many student activities. One mundane Friday afternoon in the English Literature class, she asks her lecturer about ways in which she can get involved in the university life. As the lecturer advises her to try WHYPHY, she downloads it during her break and logs in using her student account.

As she scrolls through the homepage, she notices that there is an "Introduction to yoga" session organized by the RMIT University Student Union in the events tab. After reading the event details, she straightaway registers for the earliest session.

She changes her profile picture to a funny meme about Shakespeare as a way to get attention from other literature students. Then she logs out with a relaxed mind having taken the first step in enriching her university experience and pursuing a healthy lifestyle.

KEYPATH SCENARIOS

Michael Keaton Homepage and Message

USER ACTIONS

SYSTEM ACTIONS

Michael opens the app. (He's already logged in.)

Michael opens the app. (He's already logged in.)

Michael scrolls through his homepage to check the attendees of events from various clubs, and he notices the lack of attendees for the Programming Club's weekly workshop.

The system loads up more content to the homepage as Michael scrolls through the homepage.

Michael clicks his inbox button to send a private message.

The system displays a list of Michael's notifications on the screen.

Michael taps the message tab.

The system shows Michael's chat history with the President of the Programming Club.

Michael types the message that he wants to send.

A keyboard slides up on the screen.

Michael presses the Send button to send his message to the President of the Programming Club.

The system sends Michael's message to the President of the Programming Club.

Natasha Romanoff

Log Exercise Data

USER ACTIONS

SYSTEM ACTIONS

Natasha opens the app. (She's already logged in.)

The system opens up to the homepage.

Natasha taps on the Health tab.

The system loads up Natasha's activity performances and spaces to input data.

Natasha checks the progress of her current level and inputs her new cycling data.

The system shows lists of activities and time duration.

Natasha presses the Add new activity button.

The system updates Natasha's new data and shows a message congratulating on her new level.

Create Meetup

USER ACTIONS

SYSTEM ACTIONS

Natasha taps on her homepage.

The system opens up to the homepage.

Natasha clicks on her inbox button.

The system displays a list of Natasha's notification on the screen.

Natasha taps the message tab.

The system switches to Natasha's message inbox on the screen.

Natasha clicks on her "SWIM SWIMMING SWAM" group message.

The system displays Natasha's chat history with the "SWIM SWIMMING SWAM" group.

Natasha clicks on the Plus icon.

The systems shows options to add.

Natasha clicks on the Meetup icon.

The system displays a new window to input meetup details. It shows the meetup at the top of the group chat for members to see.

Amarey Bello

Log in & register for event

USER ACTIONS

SYSTEM ACTIONS

Amarey opens the app. (She's not logged in yet, and it's her first time using the app.)

The system loads up login page.

Amarey inputs her login details, which is her student ID and password, to the provided fields.

The system processes the data and logs her in, then loads up the home page.

Amarey scrolls down through her homepage.

The system loads up more content to the homepage as Amarey scrolls through the homepage.

Amarey selects the event "Introduction to Yoga" by clicking.

The system opens a new page that displays the event's details.

Amarey registers for "Introduction to Yoga" session.

The system displays a high-contrast button to show that Amarey has successfully registered to the "Introduction to Yoga" session.

Modify Profile Picture

USER ACTIONS

SYSTEM ACTIONS

Amarey taps on the Profile icon.

The system loads up Amarey's profile page.

Amarey taps on the Edit Profile button.

The system displays Amarey's profile settings.

Amarey taps on the Profile Picture's Edit icon.

The system opens Amarey's Camera Roll on her iPhone.

Amarey selects the photo that she wants to put on her profile.

The system uploads Amarey's photo to her profile.

Amarey confirms the change on her profile by clicking the Tick icon.

The loads Amarey's new profile page with her newly updated profile picture.



LOW FIDELITY MOCKUPS

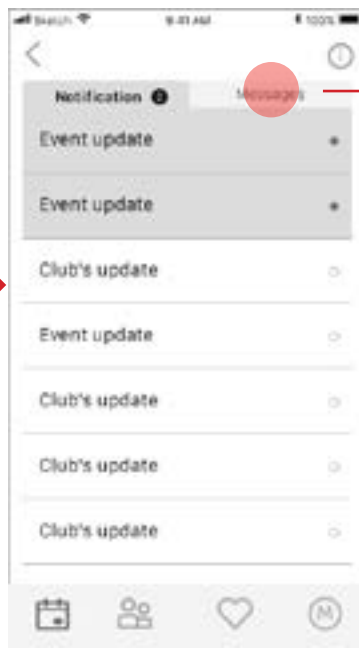
Below are the low fidelity mockups along with the design principles that are used for WHYPHY.

Michael Keaton

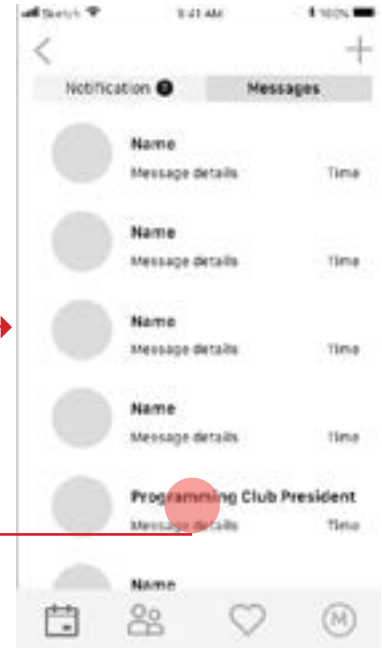
Homepage and Message



1. Michael clicks his inbox button to send a private message.



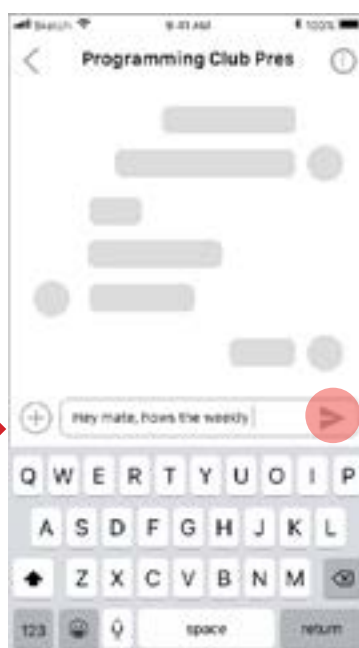
2. Michael taps the message tab.



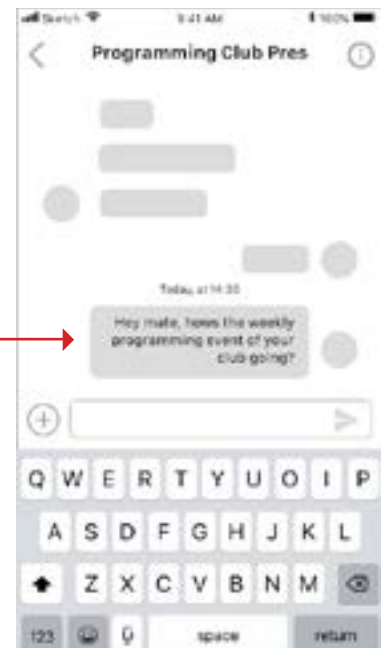
3. Michael taps on his chat with the President of the Programming Club.



4. Michael types the message that he wants to send.



5. Michael presses the Send button to send his message to the President of the Programming Club.



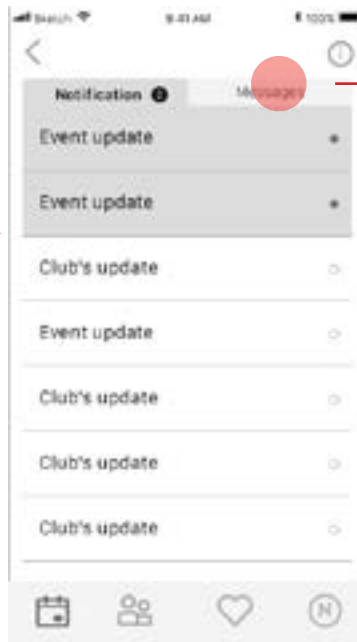
6. The system sends Michael's message to the President of the Programming Club.

Natasha Romanoff

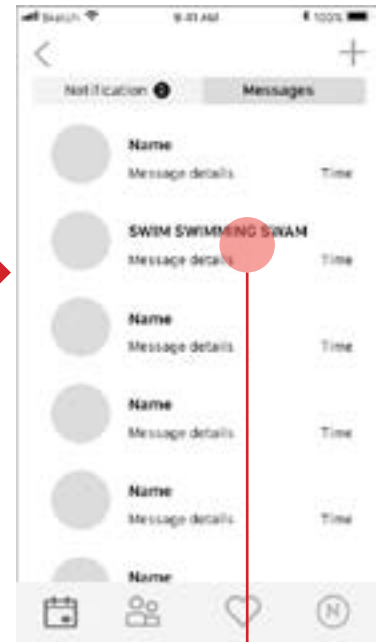
Create Meetup



1. Natasha opens her homepage and taps on her Inbox button.



2. Natasha clicks on her Messages button.



3. Natasha clicks on her "SWIM SWIMMING SWAM" group message.



4. Natasha clicks on the Plus icon.



5. Natasha clicks on the Meetup icon.



6. Natasha inputs the meetup details and press the tick icon.



7. The system sends the meetup details to the "SWIM SWIMMING SWAM" group.



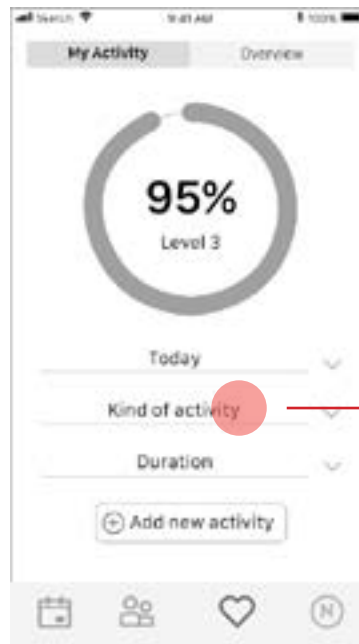
8. Later on, the system shows the meetup at the top of the group chat for members to see.

Natasha Romanoff

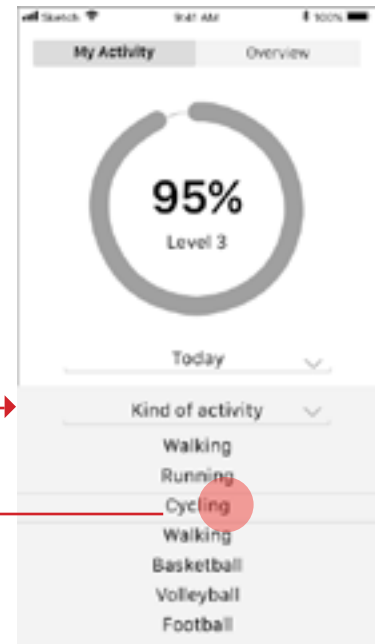
Log Exercise Data



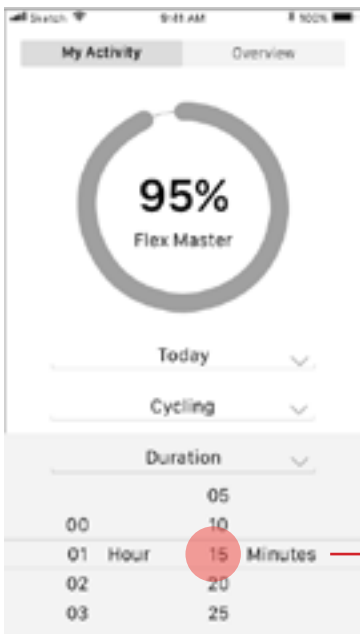
1. Natasha taps on the Health button.



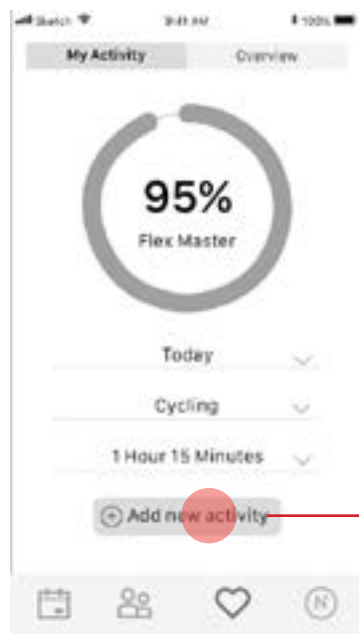
2. Natasha checks the progress of her current level and clicks on kind of activity to input new data.



3. Natasha inputs her new cycling data.



4. The system shows lists of activities and time duration to choose.



5. Natasha press the Add new activity button.



6. The system loads Natasha's new data and shows a message congratulating on her new level.

Amarey Bello

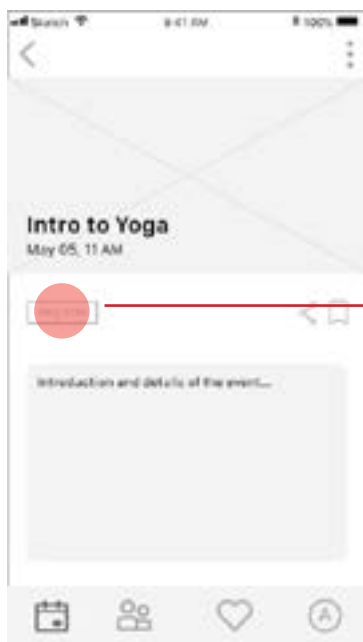
Log in & register for event



1. Amarey inputs her login details, which is her student ID and password, to the provided fields.



2. Amarey scrolls down through her homepage and click on the "Intro to Yoga" event.



3. Amarey press the Register button of "Intro to Yoga".



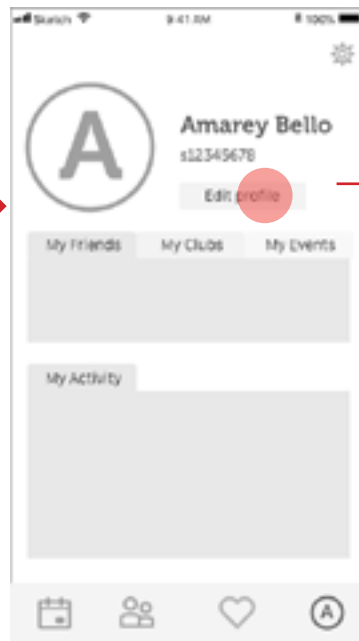
4. The system displays a high-contrast button to show that Amarey has successfully registered for the "Introduction to Yoga" session.

Amarey Bello

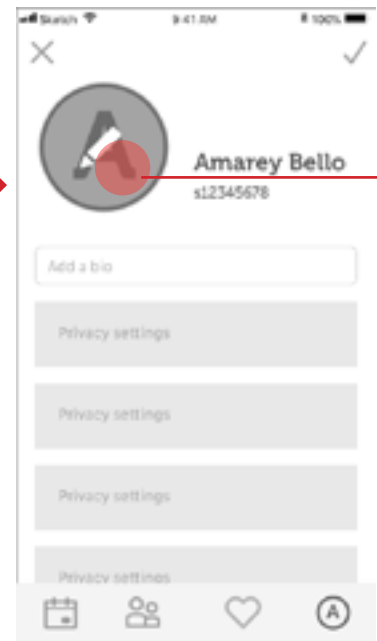
Modify profile picture



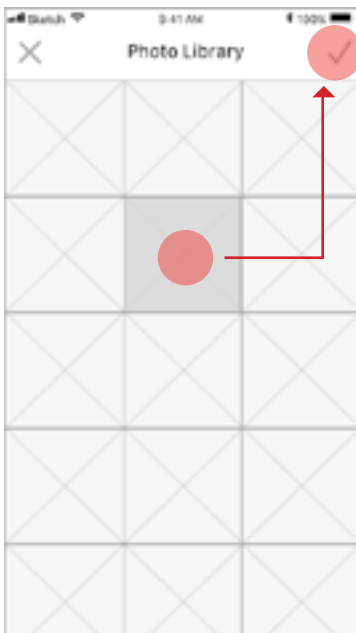
1. Amarey taps on the Profile icon.



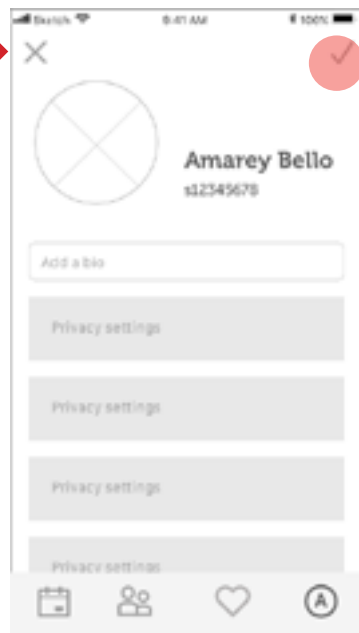
2. Amarey taps on the Edit Profile button.



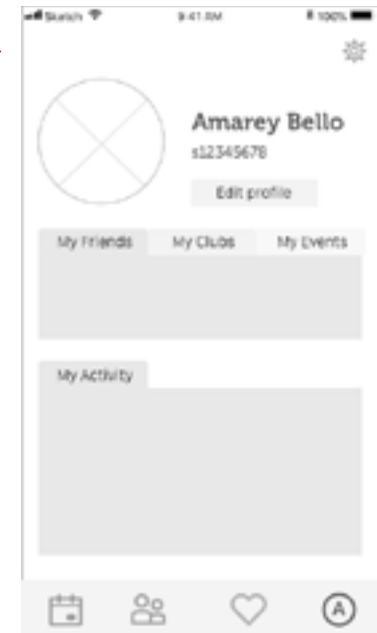
3. Amarey taps on the Profile Picture's Edit icon.



4. Amarey selects the photo that she wants to put on her profile.



5. Amarey confirms the change on her profile by clicking the Tick icon.



6. The system loads up Amarey's profile page with her newly updated profile picture.

Design Principles

The principle of proximity



Also known as the grouping principle, which is a gestalt principle of perception. We used this principle in enhancing our design of the application to help users quickly know that buttons have related functions.

Eg : In the events section, the Share button, the Bookmark button and the Register button are designed close together so that the users easily understand their purpose and use them accordingly.

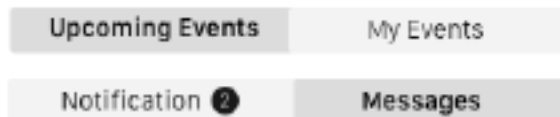
Visibility and visual feedback

Another important design principle that is used in our application is Visibility and visual feedback . There are four aspects in which this could be achieved effectively.



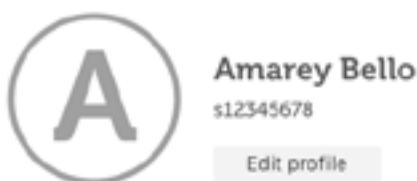
Prominence is a tool which is used to bring items that are important to the fore.

Eg: In the Events tab, we designed the Register icon using a large button; the important information is also bigger to attract attention.



Opacity is used to bring items into focus.

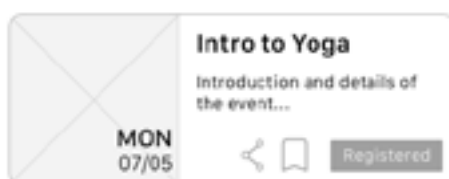
Eg: The function opacity is greatly implemented in this application. For an example, when users click a specific tab or a link, the related icons or objects will be made a shade darker so as to focus the users' attention on the desired part.



Typeface is used to funnel users' limited attention to the important information or to key interaction points while keeping the style guide.

Eg: We applied the typeface feature for the display of the event name and date in the events tab. RMIT's signature typeface is also used in the users' profile.

Status



This principle which was derived from the Nielsen's heuristic "Visibility and System Status" notifies the user that the system is processing or is awaiting input from the user.

Eg : When users register for an event, the systems changes the colour of button to indicate completed registration. Moreover, if there are a new message or new notification comes, the red icon will appear on the top of the inbox icon to notify users.

Consistency

This design principle was derived from the Nielsen's heuristic "Consistency and Standards". We have managed to be consistent in terms of interaction placement, colours and type of interface.

Eg : Same button and icons are used for the same functions & their positions are located consistently.

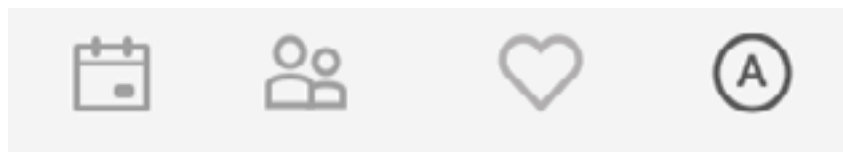


Apart from the Principles of design there are two important laws that we have looked for guidance when designing this application.

Hick's Law

We understood that putting too many options on the menu of items would decrease the efficiency of the app and slow the user decision.

Therefore, we grouped our functions into four main categories and designed the main menu with only four icons (event icons, community icon, health icon and profile icon) for functional groups, which will minimize the time for users to perform their needs.



Fitt's Law

User's find larger and nearby objects easier to hit than smaller objects which are further away.

Eg : Fitts's law is applied in designing the search bar and many other important buttons in WHYPHY. The long search bar is located at the top of the home screen so as to make it easier for the user to search for events, regardless of which hand they use to perform the function.



REFERENCES

Nielsen, J. 1995, '10 Usability Heuristics for User Interface Design', Nielsen Norman Program, viewed 25 February 2018, <<https://www.nngroup.com/articles/ten-usability-heuristics/>>

Nielsen, J. 1994, 'Enhancing the explanatory power of usability heuristics', Proc. ACM CHI'94 Conf, viewed 15 March 2018, <<http://dl.acm.org/citation.cfm?id=191729>>

Nayyar, N. (2017). Nia Shank as a fitness inspiration. [image] Available at: <https://www.womenfitness.net/wp/wp-content/uploads/2017/11/7L3A1375Health-Monitor-Network-PROOFS-Brad-Rankin-Studio.jpg> [Accessed 6 May 2018].

Gandotra D. (2017). Nice guy in college life. [image] Available at: https://lopscoop-image.oss-ap-south-east-1.aliyuncs.com/lopscoop/image/content/2017/05/31/149622877888498_P=.png [Accessed 6 May 2018].

NWFacts. (2017). A stressed woman. [image] Available at <http://www.nwfacts.com/wp-content/uploads/2017/06/4.jpg> [Accessed 6 May 2018].