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Handover to SWEN90014

Project Description

This project concerned the requirements analysis for a Garmin watch application for a triathlon training company, CoachingMate.

The ultimate goal of the project was to develop in detail the requirements for a software solution for the Garmin watch application, including project scope and all the way up to a digital prototype.

The project commenced in early March, 2020 and was completed early June, 2020. The requirements for this application are being handed over to another project team from the subject SWEN90014 in July, 2020.

Please see the [Project Overview](#) page for a detailed project description.

- Project Description
- Client Details
- Low-Fidelity Prototype
- High-Fidelity Prototype
- Final Presentation
- Final Presentation Feedback

Client Details

	Name	Preferred Name	Email	Role
	Ollie Allan	Ollie	ollie@tri-alliance.com.au	Director and Head Coach, Coaching Mate

Low-Fidelity Prototype

Wireframes have been created to represent all facets of the application to be developed and are accessible on the [Wireframes](#) page.

High-Fidelity Prototype

The high-fidelity prototype was created using Axure and the details are as follows.

URL: <https://3fkkc.axshare.com/>

Password: abcd

The Axure file is available for download here: [CoachingMate Watch App.rp](#)

Final Presentation

The final presentation was made by the project team to the client, supervisor, and subject coordinator on June 2nd, 2020.

The PowerPoint presentation file is available for download here: [Final presentation.pptx](#).

Final Presentation Feedback

During the final presentation, a number of points of feedback were raised by the subject coordinator and the client — these are all listed below for resolution by next semester's team:

1. The summary page after the completion of an activity currently uses a map to show geographic information. Due to privacy concerns, it was raised by Ollie that this map should not show the actual location and instead should use a map graphic overlaid on a black background to mask where the user completed the activity:



2. The application should offer more options for colour coded visuals for presenting real-time data. Each data field during an activity should be colour-coded making it easier for users to understand their current activity progress:



3. As is, the application currently allows for the creation of custom screens. However, the client wishes for this process of screen customisation to more closely match Garmin's.
4. After a workout is complete, it should be shaded or have some kind of other visual way of identifying that the workout has been completed until the next sync is done and the activity is removed from the watch. As is, there is no way of identifying workouts on the watch that have and have not been completed.

Specification

- Project Overview
- Requirements Elicitation
- Goal Model
- Personas
 - Primary Persona: Novice Athlete
 - Secondary Persona: Athlete
- Mood Boards
- User Stories
 - Acceptance Criteria
 - Acceptance Tests
- Wireframes
- Prototypes
 - Paper Prototype
 - Digital Prototype

Project Overview

Background

CoachingMate

For almost 2 decades, CoachingMate (CM) has been supporting people through their journey of training for upcoming triathlons. CM has a range of users, from first-time triathlon participants to high-performance athletes, and as such, has been designed as an evolving platform to provide a simple and meaningful way of prescribing activities, sessions, programs or long term plans to its users.

CM currently offers a vast library of more than 4,500 exercises written by its expert trainers all available for prescription to users of the platform. These exercises are prescribed to users based on fitness levels and ultimate goals over the duration of an individual's training program, which can last from weeks to months or more than a year.

CM currently primarily operates through a website, accessible from a personal computer, or through mobile applications available on both Apple and Google Play application stores.

Page Content

- Background
- CoachingMate
- Garmin Watches
- CoachingMate + Garmin Watches
- Problem
- Scope
- Out of Scope
- Resources

Garmin Watches

Garmin watches are a popular tool to use during workouts, as they offer users a way to commence and view scheduled workouts from their wrist, as well as monitor progress throughout the workout. With the ability to track time, movement, heart-rate, and includes an in-built GPS, Garmin watches also allow users the ability to analyse their workout in-depth once completed.

CoachingMate + Garmin Watches

Ollie Allan, the Head Coach of CoachingMate, estimates 95% of the users of the CM platform use Garmin watches during workouts. In order to cater for user needs, Ollie wants to expand the CM platform and create an application for Garmin watches.

Problem

There currently exists a number of other applications that allow Garmin watch users to track workouts but none that work with the CM platform. This means that users of CM must view their workouts on their PCs before a workout and commit them to memory or carry a mobile phone with access to either the iOS or Android application.

As confirmed with Ollie, CM users do not like to be distracted by their phones or have to carry them during a workout — users want a portable solution to view their program before and during their workout in a way that is simple, intuitive, rewarding, and less distracting than their phones.

Scope

The team will create the specifications and requirements for a Garmin watch application to support the CM platform. The desired outcome will be an application that has the ability to:

1. Automatically download up to one week's worth of workout data from the CM platform.
2. Manually download up to one week's worth of workout data from the CM platform when the user commences a sync.
3. Offer users 3 different ways to view their upcoming workout: Today, Calendar or List views.
4. Offer three unique screens based on the three different activities tracked by the CM platform: bike, run, and swim.
5. Offer customisable screens a user can display during each activity.
6. Start, pause, resume, end and save, or end and discard an activity at anytime.
7. Track metadata for all activities and notify users during activities dependent on performance.
8. Upload activity metadata to the CM platform at the completion of an activity when the Garmin watch is connected to WiFi or Bluetooth.

Out of Scope

1. Ollie envisions the future of CoachingMate to include more activities other than just bike, run, or swim activities. For this project, scope has been limited to bike, run, and swim activities.
 2. Ollie envisions future iterations of the application will allow users to commence a tri-athlon directly from their watch application (bike + run + swim activity in a sequence). For this project, scope has been limited so that users can only commence one individual activity at a time.
 3. CoachingMate is building an ability to share activity on social media directly from the CoachingMate platform — scope of this project has been limited so that the Garmin app does not include a social media capability.
 4. Activity metadata currently stored on CoachingMate's database is in plaintext and not the format specified by the Garmin IQ fitness API. An upcoming project for CoachingMate is to convert this data into a legible format for Garmin. For this project, scope has been limited so that workout data is assumed to be in the correct format for Garmin watches to read.
-

Resources

1. More information on CoachingMate: <http://coachingmate.com>
2. More information on the CoachingMate Android application: https://play.google.com/store/apps/details?id=com.coachingmate&hl=en_AU
3. CoachingMate user manual: [available here](#)
4. More information on the Garmin IQ Connect application store: <https://apps.garmin.com/en-AU/>

Requirements Elicitation

Page Content

- [Elicitation Description](#)
- [Interview Process](#)
 - [1. Pre-Meeting](#)
 - [2. During Meeting](#)
 - [3. Post-Meeting](#)
- [Roles and Responsibilities](#)
- [First Client Interview Agenda](#)
- [Preliminary Questions](#)
- [5 Why Questions](#)
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- [Project Motivations](#)
- [Artefacts](#)
- [Next Meeting Discussion Items](#)
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Elicitation Description

For the next client meeting, we have divided the interview process into 3 stages, pre-meeting, during-meeting, and post-meeting; the guidelines can be found under the *Interview Process* section below.

Given the project is still in its initial phases, there is a wide scope to discover new questions during the interview, as such we have decided to keep the interview process semi-structured.

We have made the choice to structure the interview in a semi-structured fashion. This allows for our client's answers to guide the interview to areas of information we may not have identified in question preparation due to our early stages understanding of the problem. Room for follow up questions then allows us to delve deeper into these areas that may seem interesting to us.

During the structured portion of the interview, we have prepared preliminary questions and visual aids with the use of diagrams. For the unstructured portion of the interview, we will engage the client with interview techniques, one such being the 5 whys cross-questions conducting brainstorming sessions, and performing the Do / Be / Feel exercise with the client.

Interview Process

1. Pre-Meeting

1. Prepare the agenda for the meeting based on current areas of confusion within the team and direction of project work.
2. Prepare background research in order to formulate interview questions. The background study has been completed and can be viewed on the [Project Overview](#).
3. Prepare preliminary questions and diagram.

2. During Meeting

1. Discuss meeting agenda.
2. Recap the prior meeting.
3. Show deliverables to the client.
4. Ask preliminary Questions and brainstorm.
5. Spend 5 minutes to fill do/be/feel tables with the client.
6. Wrap up the meeting with a quick recap.
7. Discuss the next deliverables.

3. Post-Meeting

1. Write a summary of the interview, tasks, and any decisions made.
2. Send a follow-up email to the client with a summary of the meeting to confirm understanding of points discussed.

Roles and Responsibilities

We have assigned roles to each team member to formalise the division and structuring of key responsibilities.

One facilitator will guide the meeting from start-to-end, providing a meeting structure, assuring all questions are answered, and the agenda is followed. This is particularly pertinent due to the challenges of video conferencing, where it is hard to have more than one person speaking.

The remaining two team members will be assigned as note takers. Having two note takers allows the team after a meeting the opportunity to compare and combine two differing written perspectives and improves the likelihood that all important details are captured. This may also present interesting discrepancies in our understanding of the project, leading to potentially interesting insights.

Roles	Responsibilities
Facilitator	<ol style="list-style-type: none"> 1. Organise meeting with the client. <ol style="list-style-type: none"> a. Meeting invite with agenda and Zoom link has been sent to the client, team members, and Ajay. 2. Write agenda for the meeting. 3. Re-introduce the team during the client meeting. 4. Host the video conference. 5. Steer the meeting from start to end. 6. Ask questions to the client. 7. Perform demos and show deliverables. 8. Offer opportunity to team members to ask any questions that arose during the meeting. 9. Send follow-up email to the client with a summary of meeting notes and decisions made.
Note Taker	<ol style="list-style-type: none"> 1. Create client meeting page in the confluence using Template - Meeting Minutes. 2. Take meeting minutes during the meeting. 3. Fill the Do / Be / Feel based on client's suggestions. 4. Help write preliminary questions. 5. Help create deliverables. 6. Ask any follow-up questions when prompted by meeting Facilitator. 7. Write summary of the client meeting. 8. Document any decisions made during the meeting and write the next tasks.

First Client Interview Agenda

No.	Agenda	Presenter
1	Re-introduce project team	Luke
2	Discuss current understanding of project from initial meeting	Luke
3	Discuss and clarify upcoming meetings and expectation of work to present	Luke
4	Ask interview questions based on requirements elicitation	Luke
5	Ask any other questions that may have come up during interview and offer opportunity to the rest of the team to ask questions	Luke
6	Close interview	Luke
7	Send summation of meeting with key points to confirm both parties are on the same page	Luke

Preliminary Questions

Question ID	Question	Author	Status
1.	The user can download workouts for up-to week, does the coaching mate app share same restrictions?	Mayank	
2.	Current understanding of the screen requirements of the application is one screen for bike, swim, and run. Is this the total number of screens the app should have?	Mayank	
3.	While swimming, the user can not fully make use of the sound notifications, would you like that notification method to be disabled during the swimming?	Mayank	
4.	What are the main challenges you can see in the project?	Mayank	
5.	Can we get a list of attributes for running, swimming, biking?	Mayank	

6.	How do we decide the size of the information that need to be displayed?	Mayank	
7.	Can you explain the colour coding used by the Garmin watch in the app?	Mayank	
8.	Do we need to store result data locally in the Garmin watch or upload the data right away after the workout is over?	Mayank	
9.	Can you explain the unique screen/s again? And how will the user make use of it?	Mayank	
10.	What are the functionality that the app can perform? eg: start, stop, etc	Mayank	
11.	What are the quality requirements?	Mayank	
12.	How and where will we deploy the app?	Mayank	
13.	What devices should the application be able to connect to?	Mayank	
14.	Are there any development preferences?	Mayank	
15.	Are there any security requirement?	Mayank	
16.	Are there any legal issues we need to consider?	Mayank	
17.	Will the app be open or close source?	Mayank	
18.	For the system-as-is: 1. How are new users trained? 2. Do the app and website have tutorials or is it primarily in person? 3. Have users given feedback on the onboarding process? 4. Is there ways in which you could see this being improved? 5. Do you foresee the need for the watch to require its own documentation and tutorials?	Lachlan	

5 Why Questions

No.	Question	Answer
1	Why do you need the Garmin app?	
2		
3		
4		
5		

Problems to be Addressed

Team members are currently unfamiliar with the Garmin and CoachingMate platforms. Given access to both has been restricted due to the Corona virus:

1. How will the team access the Garmin devices Ollie has offered and familiarise themselves with the CoachingMate platform?
2. Is it possible to have access to CoachingMate to develop the teams understanding of the system? Registering online was prohibited for unknown reasons.

Project Motivations

Do	Be	Feel	Who

Connect	Secure	Empowered	High-Performance Athletes
Download	Reliable	Safe	Beginners
Display	Trustworthy	Confident	Men
Track	Simple	Motivated	Women
Observe	Cool	Consistent	Old
Assess	Familiar within Garmin Ecosystem	Making progress	Young
Prompt	Intuitive	Inspired	
Motivate	Up-To-Date	Undistracted	
		Informed	
		Supported	

Artefacts

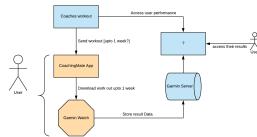


Figure 1: Project user flow diagram

Next Meeting Discussion Items

1. User stories
2. Paper prototype

Policies and Templates

1. Client Meeting Structure and Roles
2. Template - Meeting Minutes

Resources

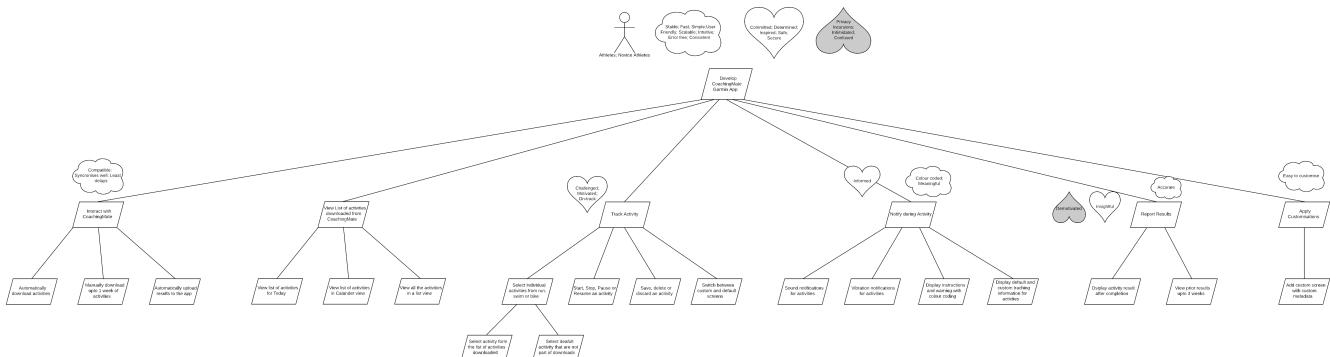
1. CoachingMate platform: <http://coachingmate.com>
2. CoachingMate Google Play application: https://play.google.com/store/apps/details?id=com.coachingmate&hl=en_AU
3. CoachingMate user manual: [available here](#)
4. More information on the Garmin IQ Connect application store: <https://apps.garmin.com/en-AU/>
5. Project flow diagram: https://www.lucidchart.com/documents/edit/4c80eb9e-4715-4682-8910-34b256836017/0_0
6. 5-Whys questioning technique: <https://www.genroe.com/blog/5-whys-root-cause-analysis-template-and-process/8001>

Goal Model

Do / Be / Feel Method

WHO	DO	BE	FEEL	Concerns
Athletes	Sync activities with CoachingMate platform	Accurate	Accomplished	Demotivated
Novice Athletes	Download up to 1 week of activities	Compatible with CoachingMate	Challenged	Intimidated
Coaches	Start activity	Customisable	Committed	Non-committed
	Unique screens for each activity type: bike, run, and swim	Fast	Determined	Overwhelmed
	User customisable screens per activity type: bike, run, and swim	Intuitive	Informed	Privacy incursions
	Switch between custom and default screens	Simple	Inspired	Confused
	Start bike activity	Stable	Motivated	
	Start run activity	User friendly	On-track	
	Start swim activity	Scalable	Safe	
	Pause, resume, stop and discard, stop and save, and complete activity	Synchronises well with CoachingMate	Insightful	
	Track activity	Least delay		
	Store activity metadata	Colour coded		
	Activity appropriate notifications — sound, vibrations, visual	Meaningful notifications		
	Give proper instruction and warning, with colour coding and warnings	Error free		
	Display activity result after completion			
	View prior results			
	Automatically upload results to CoachingMate platform			
	Have a calendar view to see the list of activities			
	Today view to see the list of activities			
	list view to see the list of activities available.			
	Can automatically download activities from CoachingMate app			
	Can keep upto 3 weeks of data in the history			

Motivational Model



Personas

The cast of users likely to use the CoachingMate Garmin watch application vary in a number of ways — in age, fitness level and knowledge, goals and motivations, and general use in accordance with lifestyle factors. In order to develop confidence in the system To-Be, variables that could impact upon use of the Garmin watch application have been identified.

Based on the impact (or not) these variables have on user processes and workflows in the application, they have been used to identify Archetypes of the CoachingMate Garmin watch application. The identification of Archetypes allows for the creation of a single Persona to represent a much larger group of users — this single Persona will be used to uncover missing design elements or flaws in the system.

Page Content

- Identifying Distinct User Behaviour Variables
- Identifying Significant Behaviour Patterns
- Mapping Personas to Behavioural Variables
- Resources

Identifying Distinct User Behaviour Variables

In discussions with Ollie, CoachingMate categorises users into five distinct categories based on fitness level. Each category informs which training program the user can be prescribed:

Categorisation of user	Current user base (%)	Activity undertaken
Elite Athlete	5	<ul style="list-style-type: none">• Accesses all activities on CM platform tagged at any fitness level.
Advanced Athlete	5	
Intermediate Athlete	10	<ul style="list-style-type: none">• Accesses activities tagged as Advanced /Intermediate and below on CM platform.
Low Athlete	40	
Novice Athlete	40	<ul style="list-style-type: none">• Accesses only Low or Novice activities on CM platform.

In order to ascertain the expected processes and goals of users utilising the CoachingMate Garmin watch application, five distinct variables have been identified to model behaviour of potential users:

- Activities: what the user does — frequency and volume,
- Attitudes: how the user thinks about the product domain and technology,
- Aptitude: what education and training the user has; capability to learn,
- Motivations: why the user is engaged in the product domain, and
- Skills: user capabilities related to the product domain and technology.

Activities	Attitudes	Aptitude	Motivations	Skills
Elite Athletes	Must-have — app helps user achieve necessary objectives	Strong background in fitness	Weight loss	Experienced Garmin user
Advanced Athletes	Nice to have — app is a tool to achieve hobby or personal goal	New to fitness	Improve health and fitness	New to Garmin ecosystem
Intermediate Athletes	Service oriented	Background in fitness but new to fitness apps	Work necessity	New to fitness apps
Low Athletes	Price oriented	New to fitness but background in fitness apps	Beat prior/best tri-athlon	Experienced fitness apps user
Novices	Fearful of privacy implications		Train for first ever tri-athlon	

Short-term plan			Tool to stay motivated /honest with results	
Long-term plan			Inform coach of progress	
Multiple workouts per day			Compare performances	
One workout per day			Accurate and reliable data	
>1 hour per workout				
<1 hour per workout				
Use of all bike, run, and swim activities.				
No user does only one individual activity as part of their training program.				

Identifying Significant Behaviour Patterns

Primary Persona: Novice Athlete

The primary design target of the CoachingMate Garmin watch application is Primary Persona: Novice. The Primary Persona represents the Archetype encompassing the majority of users of the CoachingMate Garmin watch — as a novice user with minimal triathlon experience and lower fitness level, Heather represents 80% of CoachingMate's current and future expected user base.

Another advantage of having the majority of users as Novices is that they represent users with a lower capability to learn — all features introduced will need to be understandable to a Novice, which means that the Secondary Persona: Athlete will find these simple to use.

Secondary Persona: Athlete

The Secondary Persona has been created as a way of grouping users who are not represented and who have needs that are not covered by the Primary Persona.

Athletes are expected to have more significant requirements for tracking and display of metadata during activities, leading them to use more advanced application features like activity screen customisation and results analysis.

The extra requirements introduced for the Secondary Persona, will have no impact on how the Primary Persona interacts with the application.

Served Persona: Coach

Further requirements for the Garmin watch application can be represented by the Served Persona: Coach. The Coach's role within the CoachingMate system is to onboard new users of the system, tailor an individual workout program, analyse results of activities, and tailor programs to suit users based on these results.

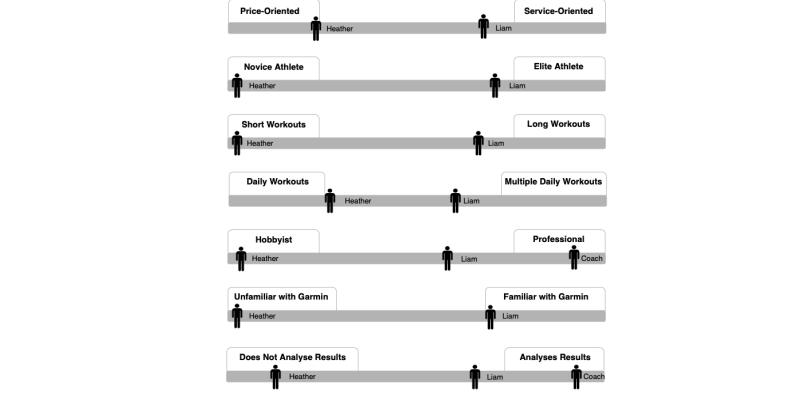
The Coach Persona is not a user of the CoachingMate Garmin watch application, however, represent people who are directly affected by the use of the application. They have requirements of the system that must be taken into account and requirements that will ultimately affect the use of the system by the Primary and Secondary Personas.

As Coaches do not use the system, no Persona profile has been created but they have been noted as a Served Persona to make sure that all of their requirements are captured.

Archetype	Persona type	Behavioural attributes
-----------	--------------	------------------------

Novice Athlete <i>Represented as Novices or Low Athletes per CM's categorisation</i>	Primary	<ul style="list-style-type: none"> No analysis of results and performance on CM platform - coaches are the primary users of this training metadata Completed very few, most likely no, tri-athlons New to CoachingMate platform On shorter-term training plan New to exercise programs New to fitness devices/wearables Less service oriented — no use of activity screen customisation More price-sensitive No use of third-party accessories Nice-to-have — primarily uses application as a hobby
Athlete <i>Represented as Elite, Advanced, and Intermediate Athletes per CM's categorisation</i>	Secondary	<ul style="list-style-type: none"> Competed in multiple tri-athlons Analysis of results and performance on CM platform On longer-term training plan Prior use of CoachingMate or another training program Prior use of fitness devices /wearables Less price sensitive More service oriented — requires more options for display and record of metadata Customises activity screens Use of third party accessories Must-have — primarily uses application as a necessity to train
Coach	Served	<ul style="list-style-type: none"> Requires accurate and detailed activity metadata Requires stable and accurate application for record of all activities Requires application to be compatible with CM platform Requires application to sync well with CM platform

Mapping Personas to Behavioural Variables



Resources

1. UXPressia: <https://uxpressia.com>
2. Diagrams.net: <https://app.diagrams.net>

Primary Persona: Novice Athlete

NAME

Heather Scoresby

80 %

ARCHETYPE

Novice Athlete**Goals**

- To generally become fitter and healthier
- Train for and one day compete in a triathlon
- Run 5km non-stop
- Swim 200m non-stop
- Cycle 10km non-stop

Quote

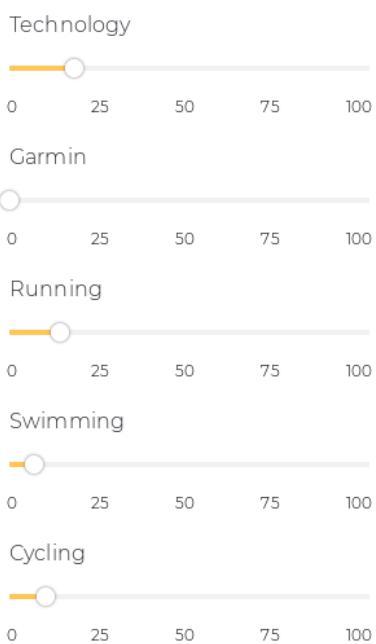
"This year I'm going to do it; I'm going to finally start exercising.

Demographic

📍 Female 55 years
📍 Melbourne, Victoria
Single
Real Estate Agent
\$60,000

Background

Heather is a 55 year old Real Estate Agent who has spent the majority of her adult life inactive. As she is getting older she is becoming increasingly concerned about her health and has decided to start regular exercise. Recently reading a memoir of a famous triathlete spiked her interest in training for and one day competing in triathlons. However, exercise in the past has typically been a painful experience for her due to low and fleeting motivation, feelings of progress, discipline and know-how.

Skills**Motivations**

- Easily keep track of upcoming workouts
- See her incremental progress reported in an encouraging and easy-to-parse manner
- Make the logistics of workouts as effortless as possible
- Receive guidance during her workouts in the form of prompts to let her know if she is on the right track

Frustrations

- Confusing and fiddly apps and planners
- Too much information
- Lack of noticeable progression when exercising
- Low discipline
- Struggling to build up motivation to start exercising
- Poor communication from trainers

Brands and influencers



Secondary Persona: Athlete

NAME

Liam Wilson

MARKET SIZE



ARCHETYPE

Athlete

Demographic

Male 32 years

Australia

Married

Mid-Level Manager

\$75,000

Goals

Complete an Olympic triathlon in under 3 hours
Finish top 10 in a triathlon

Quote

“Progress is only one way and that's forward.”

Background

Liam is a 32 year old manager of a local sports store. Liam is competitive and serious about what he commits to and after completing his first Sprint Triathlon a number of years ago, he has become obsessed with running an Olympic triathlon in under 3 hours.

Liam has worked with trainers and worn Garmin wearables for a number of years—he is a fit as they come, having exercised and played sports most of his life.

After placing 30th in his last triathlon, a disappointing result for Liam, he has recently purchased a bike power meter to improve what he sees as his biggest weakness - his cycling.

Motivations

Be better than last time
Improve cycling time

Frustrations

Time poor
Distracting and unclear applications
Hard to analyse progress

Skills



Brands and influencers





Mood Boards

- Mood Board #1 — Primary Persona: Novice Athlete
- Mood Board #2 — Secondary Persona: Athlete
- Resources

Mood Board #1 — Primary Persona: Novice Athlete



Personas	Goal Model	User Stories	Paper Prototype
<p>This mood board reflects the Novice Athlete Persona, Heather, in her drive to lose weight and get fit.</p> <p>It is also meant to represent her desire to change her life now as she ages.</p> <p>The green colour was chosen to represent her Persona as lacking experience, hence novice.</p> <p>The inspiration she draws from famous figures has also been represented, as this is how she claims she became interested in her new fitness journey.</p>	<p>The colour red was chosen to demonstrate inspiration, motivation, and insightfulness.</p> <p>It was also chosen to reflect Heather's desire to be safe from privacy incursions — red can mean support and care and was chosen to reflect the application's aspiration to be welcoming to its users.</p>	<p>In Heather's fitness journey, it is expected it would cover Epics E01-E03 and all associated User Stories.</p>	<p>In line with Ollie's feedback for visual indication of a user's activity — green, red, and orange have been incorporated into the mood board.</p> <p>This is to indicate the user's wish to stay informed and on-track. Green indicates on-track during an activity, while orange and red indicate the user being off-track.</p> <p>The incorporation of these into Heather's mood board signifies her desire to attain a goal and to know how she is tracking along the way.</p>

Mood Board #2 — Secondary Persona: Athlete

Personas	Goal Model	User Stories	Paper Prototype
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This mood board reflects the Athlete Persona, Liam, in his drive to increase his fitness levels and better his previous accomplishments.

Blue was selected to represent calm and focus. His goal of decreasing his triathlon time is not achievable in the short-term. It is a goal that will be many months of dedicated hard-work. This is also represented by the image of the long road, meant to represent literally and figuratively the long road ahead.

The image of the man reviewing results captures Liam's wish to feel informed and on-track. It is also displayed in a user-friendly and intuitive display — it is colour-coded to offer results at a glance.

It also reflects the desire for the Garmin application to sync well with the web and phone applications.

In Liam's journey to reach his fitness goals, he is expected to cover all epics E01-E06

The image of an iPad showing graphs reflects Liam's wish to track closely his performance results over time.

This desire has been incorporated into the prototype with the creation of an activity results screen and the ability to compare the completed activity details to his 3-week rolling average.

The use of the colours "Garmin blue", black, and white also represent the user's familiarity with the Garmin ecosystem and his expectations of the interface elements.

Resources

1. Colour Calculator: <https://www.sessions.edu/color-calculator/>
2. Adobe Spark: www.spark.adobe.com

User Stories

All User Stories make the following assumptions that the user has:

1. a valid CoachingMate account,
2. already used these credentials to log in,
3. training program(s) associated to their CoachingMate account to download, and
4. launched the CoachingMate application on their watch.

Epic ID	Epic	User Story ID	User Story			Priority 1: Highest 5: Lowest
			As A	I Want To	So That	
E01	As all Personas, I want to synchronise my Garmin Connect application with my CoachingMate application on my Garmin watch, So that I can download training sessions and upload results.	E01-US01	All person as	download up to 1 week's worth of training sessions to my CoachingMate application on my Garmin watch	I can train for my athletic goal with the program my coach has prepared for me	1
		E01-US02	All person as	have the sessions automatically downloaded to the Garmin watch from CoachingMate application	I don't have manually download the activities whenever I want to train	1
		E01-US03	All person as	have my results uploaded to the CoachingMate platform automatically as soon as the activity is completed	I can view my detailed performance history in the CoachingMate web or phone application	1
E02	As all Personas, I want to view the list of activities that were downloaded from the CoachingMate application, So that I see the activities my coach has created for my training sessions.	E02-US04	All person as	view the list of sessions in a 'Calendar' view	I know what training session I am going to complete on a given day	1
		E02-US05	All person as	view the session that I need to perform today in a separate 'Today' view	I can quickly start today's training session	1
		E02-US06	All person as	view the list of sessions in a separate 'List' view	I can see all the sessions that are present in my Garmin watch in chronological order	1
E03	As an Athlete, I want to track 3 types of activities, i.e. biking, running, and swimming, So that I can train for my athletic goals.	E03-US07	All person as	be prompted with the individual activity, i.e. biking, running, and swimming, from the list of available activities	I can track my training session scheduled for today	1
		E03-US08	Athlete	start and stop the selected activity with a default proprietary screen	I can start tracking today's training session	1
		E03-US09	All person as	pause and resume an ongoing activity	I can take a break whenever I feel the need	1
		E03-US10	All person as	discard my results after stopping an activity	I can end a workout whenever I feel the need	1
		E03-US11	Athlete	switch between the default and my custom screens during activities	I can see extra tracking information about the ongoing activity	2
E04	As an Athlete, I want to apply customisation to the Garmin application, So that I can change the activity settings according to my needs.	E04-US12	Athlete	be able to add custom screens to all types of activities and save it	I can collect more tracking information during my training sessions	2
		E04-US13	All person as	be able to delete or discard an activity from my Garmin watch	I can get rid of activities that I no longer require for training	1
E05	As an Athlete, I want to see results for training sessions,	E05-US14	Athlete	see summary results of my training session on the screen after completing the activity	I can see my session performance and observe my improvements compared to 3 weeks' past average	2

	So that I can monitor my performance.	E05-US15	Athlete	see a list of results from my prior activities for up to 3 weeks	I can study my performance and improvements for the period	3
E06	As a Novice Athlete, I want to receive notifications while tracking activities, So that I am aware of my progress.	E06-US16	All person as	hear sound notifications during an ongoing activity	I know when to start or stop and when I hit any milestone or checkpoint	2
		E06-US17	All person as	receive vibration notifications during an ongoing activity	I know when to start or stop and when I hit any milestone or checkpoint	1
		E06-US18	All person as	see visual notifications during an ongoing activity	I know when to start or stop and when I hit any milestone or checkpoint	1
		E06-US19	No novice Athlete	see instructions for the selected activity	I can know what to do during the activity	1
		E06-US20	All person as	receive warnings while tracking activity with proper colour coding and notifications	I know when, for example, my pace or heart-rate is too slow or fast	1

Priority Justification

During [01/05/2020 - Client Meeting #4](#), Ollie gave an overview of what features should be prioritised, where the 3 features of top priority were:

1. The Initial view — how the athletes are able to view their training program: Calendar, Today, and List view is a priority.
2. The ability to automatically upload and download workouts from the CoachingMate server when the watch is connected to WiFi or to a phone via Bluetooth.
3. CoachingMate proprietary screens. This is in order to lower the learning curve for existing users of the CM online platform.

The user stories directly associated with these features have been assigned a priority of 1 and must be delivered.

The remaining user stories have been given a priority based on discussion with and feedback from the client — the user story feedback survey sent to Ollie has been attached below.

Priority	Priority Justification
1, 2	Must have
3, 4	Should have, but if they have to be cut due to time, they can be
5	Could have — they are either lower priority or need to be further unpacked or discussed

User Story Client Survey Response



Garmin_User_St...y_response.pdf

Acceptance Criteria

All Acceptance Criteria make the following assumptions that the user has:

1. a valid CoachingMate account,
2. already used these credentials to log in,
3. training program(s) associated to their CoachingMate account to download, and
4. launched the CoachingMate application on their watch.

User Story ID	User Story	Acceptance Criteria ID	Acceptance Criteria			Priority 1 : Highest 5 : Lowest
			Given	When	Then	
E01-US01	As All Personas, I want to download up to 1 week's worth of training activities to my CoachingMate application on my Garmin watch, So that I can train for my athletic goal with the program my coach has prepared for me.	US01-AC01	the user has no training sessions downloaded to their watch	they are connected to WiFi or Bluetooth and sync their CoachingMate application	up to 1 week's worth of training sessions downloads to their watch	1
		US01-AC02	the user has existing training sessions downloaded to their watch	they are connected to WiFi or Bluetooth and sync their CoachingMate application	up to 1 week's worth of new training sessions replaces the existing training sessions	
E01-US02	As All Personas, I want to have the sessions automatically downloaded to the Garmin watch from CoachingMate application, So that I don't have manually download the activities whenever I want to train.	US02-AC03	the user has no training sessions downloaded to their watch	they are connected to WiFi or Bluetooth,	up to 1 week's worth of training sessions automatically downloads to their watch	1
		US02-AC04	the user has existing training sessions downloaded to their watch	they are connected to WiFi or Bluetooth and sync their CoachingMate application	up to 1 week's worth of new training sessions automatically replaces the existing training sessions	
E01-US03	As All Personas, I want to have my results uploaded to the CoachingMate platform automatically as soon as the activity is completed, So that I can view my detailed performance history in the CoachingMate web or phone application.	US03-AC05	the user has completed a session	they are connected to WiFi or Bluetooth	the metadata of the training session automatically uploads to the CoachingMate servers	1
		US03-AC06	the user has completed a session	they are not connected to WiFi or Bluetooth	the metadata of the training session is queued and automatically uploads to the CoachingMate servers once the watch is connected to WiFi or Bluetooth	
E02-US04	As All Personas, I want to view the list of sessions in a Calendar view, So that I know what training session I am going to complete on a given day.	US04-AC07	the user has no training sessions downloaded to their watch	they navigate to the Calendar view	the Calendar is not populated with any training sessions	1
		US04-AC08	the user has existing training sessions downloaded to their watch	they navigate to the Calendar view	the Calendar is populated with up to 1 week's worth of already downloaded training sessions displayed on the day and date of the session	
E02-US05	As All Personas, I want to view the session that I need to perform today in a separate 'Today' view, So that I can quickly start today's training session without having to search for it.	US05-AC09	the user has no training sessions scheduled for today	they navigate to the Today view	the Today view is not populated with any training sessions	1
		US05-AC10	the user has existing training sessions downloaded to their watch	they navigate to the Today view	the Today view is populated with today's training session	
E02-US06	As All Personas, I want to view the list of sessions in a separate 'List' view, So that I can see all the sessions that are present in my Garmin watch in chronological order.	US06-AC11	the user has no training sessions downloaded to their watch	they navigate to the List view	the List view is not populated with any training sessions	1
		US06-AC12	the user has existing training sessions downloaded to their watch	they navigate to the List view	the List view is populated with up to 1 week's worth of already downloaded training sessions	

E03-US07	<p>As All Personas,</p> <p>I want to be prompted with the individual activity, i.e. biking, running, and swimming, from the list of available activities,</p> <p>So that I can track my training session scheduled for today.</p>	US07-AC13	the user has a training session downloaded to their watch and scheduled for today	they commence a session from the Today view	the correct activity screen is displayed (i.e. bike, run or swim)	1
E03-US08	<p>As an Athlete,</p> <p>I want to start and stop the selected activity with a default proprietary screen,</p> <p>So that I can start tracking today's training session.</p>	US08-AC14	the user has commenced an activity	they want stop an activity	they start and to stop and start an activity at anytime	1
E03-US09	<p>As All Personas,</p> <p>I want to pause and resume an ongoing activity,</p> <p>So that I can take a break whenever I feel the need.</p>	US09-AC15	the user has commenced an activity	the user pauses an activity	the activity recommences from where it was paused	1
E03-US10	<p>As All Personas,</p> <p>I want to discard my results after stopping an activity,</p> <p>So that I can end a workout whenever I feel the need.</p>	US10-AC16	the user has commenced an activity	the user selects stop and discard during the activity	no metadata from the activity uploads to the CoachingMate platform	1
E03-US11	<p>As an Athlete,</p> <p>I want to switch between the default and my custom screens during activities,</p> <p>So that I can see extra tracking information about the ongoing activity.</p>	US11-AC17	the user has commenced an activity	the user changes screens to a custom user activity screen	the activity continues and displays the custom user screen	2
E04-US12	<p>As an Athlete,</p> <p>I want to be able to add custom screens to all types of activities and save it,</p> <p>So that I can collect more tracking information during my training sessions.</p>	US12-AC18	the user wants to customise an activity screen	they navigate to application settings and customise a screen,	the customised activity screen is shown during training activities.	2
E04-US13	<p>As All Personas,</p> <p>I want to be able to delete or discard a session from my Garmin watch,</p> <p>So that I can get rid of activities that I no longer require for training.</p>	US13-AC19	there exists on the application 1 or more training sessions the user wants to delete or discard	they navigate to the session to discard it	the session is removed from their CoachingMate application	1
E05-US14	<p>As an Athlete,</p> <p>I want to see summary results of my training session on the screen after completing the activity,</p> <p>So that I can see my session performance and observe my improvements compared to 3 weeks' past average.</p>	US14-AC20	the user has training sessions on their watch	they have just completed a training session	they view the results from their current training session and a comparison to their past 3 week average	2
E05-US15	<p>As an Athlete,</p> <p>I want to see a list of results from my prior activities for up to 3 weeks,</p> <p>So that I can study my performance and improvements for the period.</p>	US15-AC21	the user has completed 1 or more training sessions within the past 3 weeks	they navigate to completed training sessions	they see their results for the past 3 weeks	3

E06-US16	As All Personas, I want to hear sound notifications during an ongoing activity, So that I know when to start or stop and when I hit any milestone or checkpoint.	US16-AC22	the user has commenced an activity	they reach a milestone or checkpoint	they are prompted with sound notifications to alert them to the milestone checkpoint	2
E06-US17	As All Personas, I want to receive vibration notifications during an ongoing activity, So that I know when to start or stop and when I hit any milestone or checkpoint.	US17-AC23	the user has commenced an activity	they reach a milestone or checkpoint	they are prompted with vibration notifications to alert them to the milestone or checkpoint	1
E06-US18	As All Personas, I want to see visual notifications during an ongoing activity, So that I know when to start or stop and when I hit any milestone or checkpoint.	US18-AC24	the user has commenced an activity	they reach a milestone or checkpoint	they are prompted with visual notifications to alert them to the milestone or checkpoint	1
E06-US19	As a Novice Athlete, I want to see instructions for the selected activity, So that I can know what to do during the activity.	US19-AC25	the user is about to commence a training session	they navigate to that training session	they are prompted with details and instructions for the activities	1
E06-US20	As All Personas, I want to receive warnings while tracking activity with proper colour coding and notifications, So that I know when, for example, my pace or heart-rate is too slow or fast.	US20-AC26	the user has commenced an activity	they do not perform to the guidelines of the activity (e.g. pace too slow, heart-rate too fast, etc.)	they are prompted with warnings and notifications to guide them	1

Acceptance Tests

All Acceptance Tests make the following assumptions that the user has:

1. a valid CoachingMate account,
2. already used these credentials to log in,
3. training program(s) associated to their CoachingMate account to download, and
4. launched the CoachingMate application on their watch.

Acceptance Criteria ID	Acceptance Criteria	Acceptance Test ID	Step #	Step Requirement	Critical		Test Results		Comments
					Yes	No	Accept	Reject	
AC01	<p>Given the user has no training sessions downloaded to their watch,</p> <p>When they are connected to WiFi or Bluetooth and sync their CoachingMate application,</p> <p>Then up to 1 week's worth of training sessions downloads to their watch.</p>	AC01-AT01	1	The user navigates to settings	X				
			2	The user navigates to sync settings	X				
			3	The user selects new sync	X				
			...	Some time passes to allow Garmin Connect to sync	X				
			4	The user navigates to the home page and selects Today, Calendar or List view		X			
			5	Under each view, the synced activities are displayed		X			
AC02	<p>Given the user has existing training sessions downloaded to their watch,</p> <p>When they are connected to WiFi or Bluetooth and sync their CoachingMate application,</p> <p>Then up to 1 week's worth of new training sessions replaces the existing training sessions.</p>	AC02-AT02	1	The user navigates to settings	X				
			2	The user navigates to sync settings	X				
			3	The user selects new sync	X				
			4	A sync commences	X				
			...	Some time passes to allow Garmin Connect to sync	X				
			5	The user navigates back to the home page and selects Today, Calendar or List view		X			
			6	Under each view, the user can see the newly synced activities are displayed and the previous activities have been replaced		X			
AC03	<p>Given the user has no training sessions downloaded to their watch</p> <p>When they are connected to WiFi or Bluetooth,</p> <p>Then up to 1 week's worth of training sessions automatically downloads to their watch.</p>	AC03-AT03	1	The user connects their watch to WiFi or Bluetooth	X				
			...	A period of time passes to allow Garmin Connect to sync	X				
			2	The user navigates back to the home page and selects Today, Calendar or List view		X			
			3	Under each view, the user can see the newly synced activities displayed		X			
AC04	<p>Given the user has existing training sessions downloaded to their watch,</p> <p>When they are connected to WiFi or Bluetooth,</p> <p>Then up to 1 week's worth of new training sessions automatically replaces the existing training sessions.</p>	AC04-AT04	1	The user navigates to the Today, Calendar, or List view where there are existing training sessions downloaded	X				
			2	The user connects their watch to WiFi or Bluetooth	X				
			...	Some time passes to allow Garmin Connect to sync	X				
			3	The user navigates back to the home page and selects Today, Calendar or List view		X			
			4	Under each view, the user can see the newly synced training sessions displayed and the previously synced training sessions have been removed		X			
AC05	<p>Given the user has completed a session,</p> <p>When they are connected to WiFi or Bluetooth,</p> <p>Then the metadata of the training session automatically uploads to the CoachingMate servers.</p>	AC05-AT05	1	The user commences an activity	X				
			...	Some time passes as the user progresses through the training session	X				
			2	The user completes the activity	X				
			3	The results from the activity are displayed		X			
			...	A period of time passes to allow Garmin Connect to sync	X				
			4	The user navigates to the CoachingMate web or phone application		X			

			5	The results from the activity are visible and match the results from the summary page	X			
AC06	<p>Given the user has completed a session,</p> <p>When they are not connected to WiFi or Bluetooth,</p> <p>Then the metadata of the training session is queued and automatically uploads to the CoachingMate servers once the watch is connected to WiFi or Bluetooth.</p>	AC06-AT06	1	The user commences an activity	X			
			...	Some time passes as the user progresses through the training session	X			
			2	The user completes the activity	X			
			3	The results from the activity are displayed		X		
			4	The results are stored on the watch	X			
			5	The user connects their watch to WiFi or Bluetooth	X			
			...	Some time passes to allow Garmin Connect to sync	X			
			6	The user navigates to the CoachingMate web or phone application		X		
			7	The results from the activity are visible	X			
AC07	<p>Given the user has no training sessions downloaded to their watch,</p> <p>When they navigate to the Calendar view,</p> <p>Then the Calendar is not populated with any training sessions.</p>	AC07-AT07	1	The user navigates to the Calendar view	X			
			2	No training sessions are displayed	X			
AC08	<p>Given the user has existing training sessions downloaded to their watch,</p> <p>When they navigate to the Calendar view,</p> <p>Then the Calendar is populated with up to 1 week's worth of already downloaded training sessions displayed on the day and date of the session.</p>	AC08-AT08	1	The user navigates to the Calendar view	X			
			2	The Calendar view has been populated with up to 1 week's worth of training sessions	X			
AC09	<p>Given the user has no training sessions scheduled for today,</p> <p>When they navigate to the Today view,</p> <p>Then the Today view is not populated with any training sessions.</p>	AC09-AT09	1	The user navigates to the Today view	X			
			2	No training sessions are displayed	X			
AC10	<p>Given the user has existing training sessions downloaded to their watch,</p> <p>When they navigate to the Today view,</p> <p>Then the Today view is populated with today's training session.</p>	AC10-AT10	1	The user navigates to the Today view	X			
			2	The Today view has been populated with up to 1 week's worth of training sessions	X			
AC11	<p>Given the user has no training sessions downloaded to their watch,</p> <p>When they navigate to the List view,</p> <p>Then the List view is not populated with any training sessions.</p>	AC11-AT11	1	The user navigates to the List view	X			
			2	No training sessions are displayed	X			
AC12	<p>Given the user has existing training sessions downloaded to their watch,</p> <p>When they navigate to the List view,</p> <p>Then the Calendar is populated with up to 1 week's worth of already downloaded training sessions displayed on the day and date of the session.</p>	AC12-AT12	1	The user navigates to the Today view	X			
			2	The List view has been populated with up to 1 week's worth of training sessions	X			
AC13	<p>Given the user has a training session downloaded to their watch and scheduled for today,</p>	AC13-AT13	1	The user navigates to the Today view	X			
			2	The user selects today's training session	X			

	When they commence a session from the Today view, Then the correct activity screen is displayed (i.e. bike, run or swim).		3	The application launches the correct bike, run or swim activity screen depending on the activity scheduled for today	X				
			4	The user commences the activity	X				
			...	Some time passes as the user progresses through the training session	X				
			5	The user completes the activity	X				
			6	The results from the activity are displayed	X				
			7	The results are stored on the watch	X				
			...	Some time passes to allow Garmin Connect to sync	X				
			8	The user navigates to the CoachingMate web or phone application	X				
			9	The results from the activity are visible	X				
AC14	Given the user has commenced an activity, When they want stop an activity, Then they start and to stop and start an activity at anytime	AC14-AT14	1	The user commences an activity	X				
			...	Some time passes as the user progresses through the training session	X				
			2	The user stops the activity	X				
			3	The user resumes the activity	X				
			...	Some time passes as the user progresses through the training session	X				
			4	The user completes the activity	X				
			5	The results from the activity are displayed	X				
			6	The results are stored on the watch	X				
			...	Some time passes to allow Garmin Connect to sync	X				
			7	The user navigates to the CoachingMate web or phone application	X				
			8	The results from the activity are visible	X				
AC15	Given the user has commenced an activity, When the user pauses an activity, Then the activity should recommence from where it was paused when it is resumed.	AC15-AT15	1	The user commences an activity	X				
			...	Some time passes as the user progresses through the training session	X				
			2	The user pauses the activity	X				
			3	The user resumes the activity and the metadata (e.g. time, pace, distance) continue from when they were paused	X				
			...	Some time passes as the user progresses through the training session	X				
			4	The user completes the activity	X				
			5	The results from the activity are displayed	X				
			6	The results are stored on the watch	X				
			...	Some time passes to allow Garmin Connect to sync	X				
			7	The user navigates to the CoachingMate web or phone application	X				
			8	The results from the activity are visible	X				
AC16	Given the user has commenced an activity, When the user selects stop and discard an activity, Then no metadata from the activity uploads to the CoachingMate platform.	AC16-AT16	1	The user commences an activity	X				
			...	Some time passes as the user progresses through the training session	X				
			2	The user stops the activity	X				
			3	The user discards the activity and progress	X				
			4	The user navigates to the CoachingMate web or phone application	x				
			5	The results from the activity are not visible	X				
AC17	Given the user has commenced an activity, When the user changes screens to a custom user activity screen, Then the activity continues and displays the custom user screen.	AC17-AT17	1	The user commences an activity	X				
			...	Some time passes as the user progresses through the training session	X				
			2	The user selects a custom user screen to display activity progress	X				
			...	Some time passes as the user progresses through the training session displaying the custom screen	X				
			3	The user completes the activity displaying the custom screen	X				

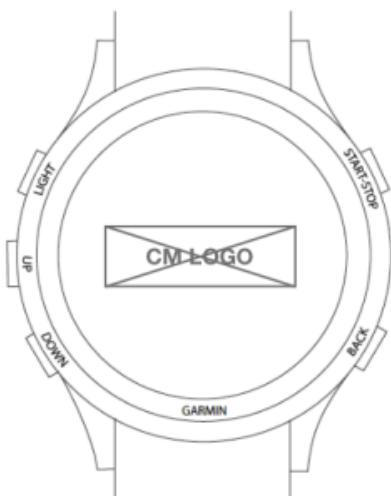
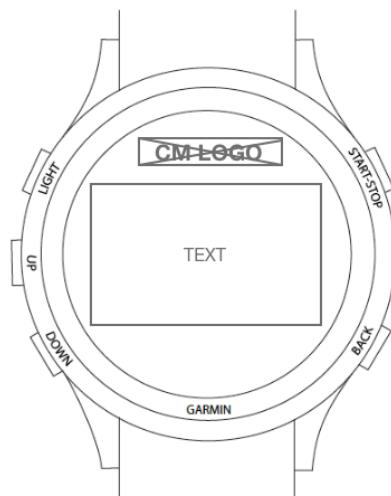
			4	The results from the activity are displayed	X			
			5	The results are stored on the watch	X			
			...	Some time passes to allow Garmin Connect to sync	X			
			6	The user navigates to the CoachingMate web or phone application	X			
			7	The results from the activity are visible	X			
AC18	Given the user wants to customise an activity screen, When they navigate to application settings and customise a screen, Then the customised activity screen is shown during training activities.	AC18-AT18	1	The user navigates to activity settings	X			
			2	The user selects activity type (i.e. bike, run or swim) to customise	X			
			3	The user chooses the number of metadata and type to display on the screen during an activity	X			
			4	The user saves the screen	X			
			5	The user commences an activity of the same type that was customised	X			
			6	The user selects a custom user screen to display activity progress	X			
			...	Some time passes as the user progresses through the training session displaying the custom screen	X			
			7	The user completes the activity displaying the custom screen	X			
AC19	Given there exists on the application 1 or more training sessions the user wants to delete or discard, When they navigate to the session to discard it, Then the session is removed from their CoachingMate application.	AC19-AT19	1	The user navigates to current training sessions	X			
			2	The user selects the training session to discard	X			
			3	The training session is discarded from the watch and no longer visible to the user under current training sessions	X			
AC20	Given the user has training sessions on their watch, When they have just completed a training session, Then they view the results from their current training session and a comparison to their past 3 week average.	AC20-AT20	1	The user commences an activity	X			
			...	Some time passes as the user progresses through the training session	X			
			2	The user completes the activity	X			
			3	The results from the activity are displayed (including a comparison to the user's 3 week rolling average)	X			
			4	The results are stored on the watch	X			
			...	Some time passes to allow Garmin Connect to sync	X			
			5	The user navigates to the CoachingMate web or phone application	X			
			6	The results from the activity are visible	X			
AC21	Given the user has completed 1 or more training sessions within the past 3 weeks, When they navigate to completed training sessions, Then they see their results for the past 3 weeks.	AC21-AT21	1	The user navigates to completed activities	X			
			2	The user can see their performance for the past 3 weeks	X			
AC22	Given the user has commenced an activity, When they reach a milestone or checkpoint, Then they are prompted with sound notifications to alert them to the milestone checkpoint.	AC22-AT22	1	The user commences an activity	X			
			...	Some time passes as the user progresses through the training session	X			
			2	The user reaches a milestone or checkpoint (e.g. fastest kilometre, longest run)	X			
			3	The user is prompted with a sound notification to alert them to the milestone or checkpoint	X			
			...	Some time passes as the user progresses through the training session	X			
			4	The user completes the activity	X			
AC23	Given the user has commenced an activity, When they reach a milestone or checkpoint,	AC23-AT23	1	The user commences an activity	X			
			...	Some time passes as the user progresses through the training session	X			

	Then they are prompted with vibration notifications to alert them to the milestone or checkpoint.		2	The user reaches a milestone or checkpoint (e.g. fastest kilometre, longest run)	X				
			3	The user is prompted with a vibration notification to alert them to the milestone or checkpoint	X				
			...	Some time passes as the user progresses through the training session	X				
			4	The user completes the activity	X				
AC24	Given the user has commenced an activity, When they reach a milestone or checkpoint, Then they are prompted with visual notifications to alert them to the milestone or checkpoint.	AC24-AT24	1	The user commences an activity	X				
			...	Some time passes as the user progresses through the training session	X				
			2	The user reaches a milestone or checkpoint (e.g. fastest kilometre, longest run)	X				
			3	The user is prompted with a visual notification to alert them to the milestone or checkpoint	X				
			...	Some time passes as the user progresses through the training session	X				
			4	The user completes the activity	X				
AC25	Given the user is about to commence a training session, When they navigate to that training session, Then they are prompted with details and instructions for the activities .	AC25-AT25	1	The user navigates to training sessions	X				
			2	The user is prompted with detailed instructions about the training session they are about to commence	X				
			3	The user commences the training session	X				
			...	Some time passes as the user progresses through the training session	X				
			4	The user completes the activity	X				
AC26	Given the user has commenced an activity, When they do not perform to the guidelines of the activity (e.g. pace too slow, heart-rate too fast, etc.), Then they are prompted with warnings and notifications to guide them.	AC26-AT26	1	The user commences a training session	X				
			...	Some time passes as the user progresses through the training session	X				
			2	The user is prompted with warnings and notifications when the guidelines of the training session are not being met (e.g. pace too slow)	X				
			...	Some time passes as the user progresses through the training session	X				
			3	The user completes the activity	X				

Wireframes

Low-fidelity wireframes have been created for the CoachingMate Garmin watch application based on a number of design factors:

1. Ollie's feedback from the Paper Prototype has been taken into consideration and is reflected in the wireframes that ultimately inform the Digital Prototype. Ollie's feedback is viewable on the [Paper Prototype](#) page.
2. The wireframes establish branding by incorporating the CoachingMate logo.
3. A minimum subset of screens have been designed in order to create consistency and a common design pattern across the application. For example, there are only 4 different types of settings screens displayed below, as these have been replicated across the entire application.
4. The screens created facilitate the [User Stories](#).
5. All screens have also been created in line with Garmin capabilities — given the limitations based on screen size and input options of a Garmin watch, wireframes have been created that follow Garmin guidelines.

Wireframe	Description
Main Application Screens	
	This is the standard screen that will display during application loading.
	This is the home page screen when no activities have been synced to the application — it will prompt the user to complete a sync.



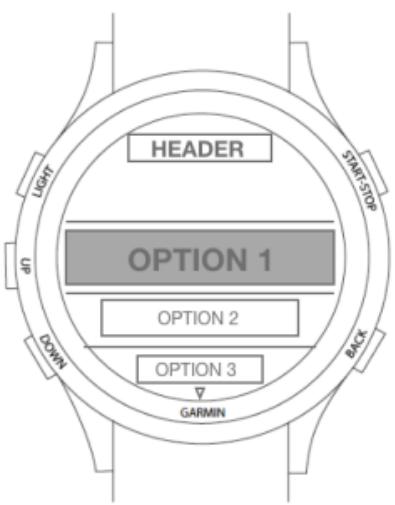
This is the initial screen when a user launches the CM application.

This fits with Ollie's requirements from the Paper Prototype that the CM branding is front and centre and that the user must have training sessions broken down into:

1. Today view,
2. Calendar view, and
3. List view, as the least important.

Menu Screens

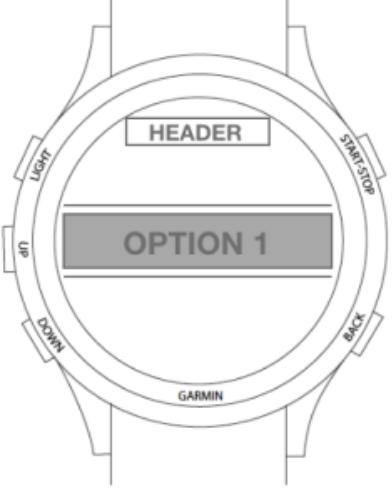
The information hierarchy chosen here prioritises the current highlighted option, given Garmin's limited user input choice — only 1 item can be selected at a time so this will emphasise it.



This is the standard screen that will display when there are 3 options to select from and only an ability to scroll down.



This is the standard screen that will display when there are 2 options to select from and only an ability to scroll up.

	<p>This is the standard screen that will display when there is 1 option to select from and no ability to scroll up nor down.</p>
	<p>This is the standard screen that will display when there are 4 options to select from and an ability to scroll up and down.</p>

Training Sessions View Screens

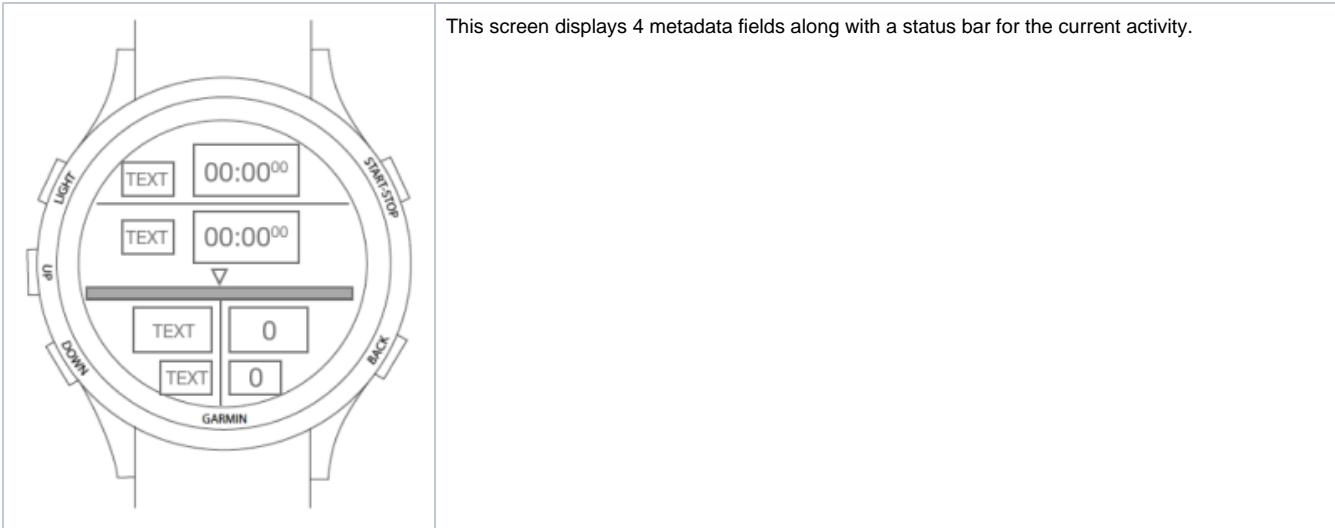
Based on Ollie's feedback from the Paper Prototype, 3 activity view screens have been created:

1. Today view,
2. Calendar view, and
3. List view.

	<p><i>Today view</i></p> <p>The Today view will display only Today's training session, and if none is scheduled today, will display a message to that effect.</p>
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	<p><i>Calendar view</i></p> <p>The Calendar view will display all training sessions scheduled for the current month. When a user selects a date to view, they will view a screen similar to the Today view, above.</p> <p>A user can also navigate to different months and years.</p>
	<p><i>List view</i></p> <p>The list view will display all training sessions downloaded to the watch in sequential order based on the date of the training session.</p>
Activity Description Screen	
	<p>Before the commencement of an activity, this screen will display the details of the activity.</p> <p>This will also be the screen used in-between activity intervals and sets.</p>
Activity Screens	
<p>The activity screens have been created with the ability to be customised based on Ollie's feedback from the Paper Prototype. His wish was for users to be able to select the number of fields of metadata to display and the type of each field.</p>	
<p>Activity screens have been created with 1, 2, 3, and 4 metadata fields — these 4 screens are used across all activity types.</p>	

	<p>This screen displays 1 metadata field along with a status bar for the current activity.</p>
	<p>This screen displays 2 metadata fields along with a status bar for the current activity.</p>
	<p>This screen displays 3 metadata fields along with a status bar for the current activity. This is the default activity screen.</p>

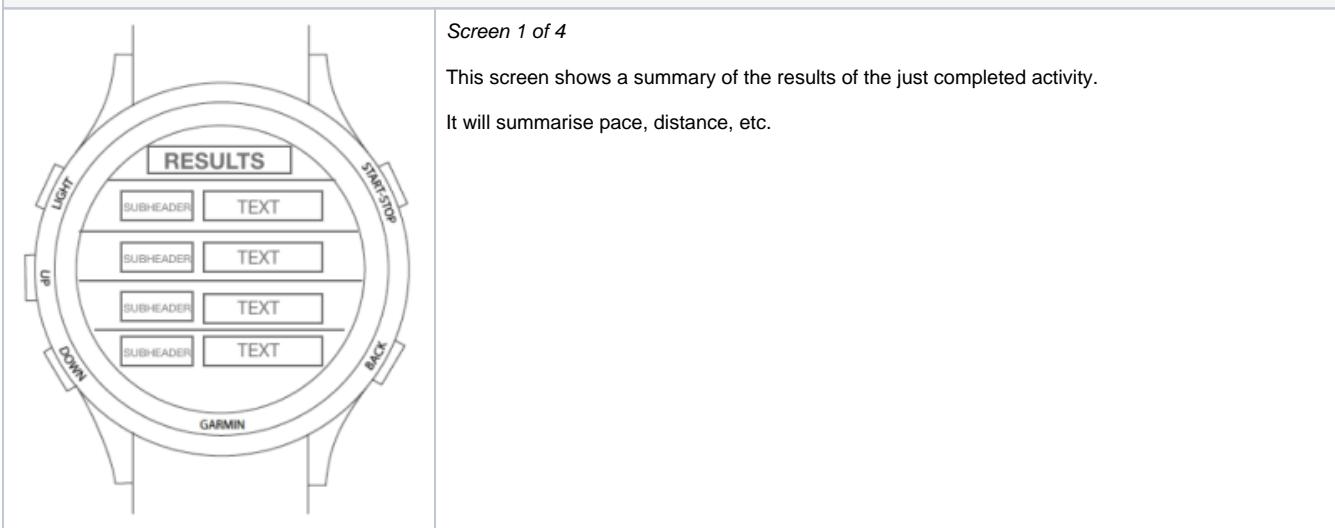


This screen displays 4 metadata fields along with a status bar for the current activity.

Summary Results Screens

Based on Ollie's feedback from the Paper Prototype, 4 screens have been created to show the results at the completion of an activity.

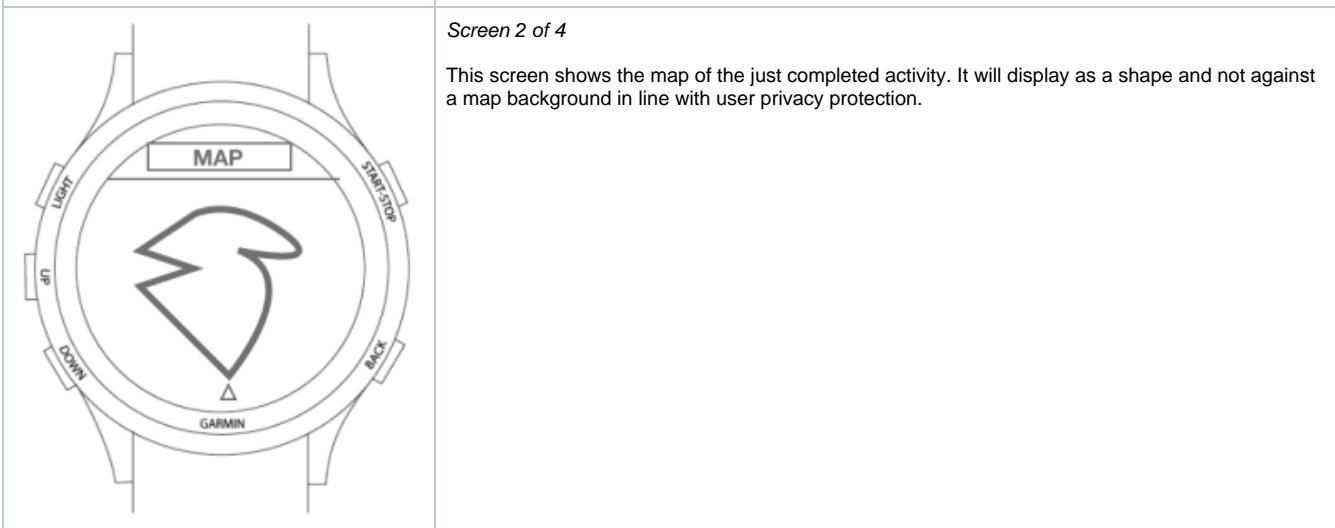
These are default across all activity types; bike, run, and swim — scrolling up or down in these screens will allow the user to go-between accessing each.



Screen 1 of 4

This screen shows a summary of the results of the just completed activity.

It will summarise pace, distance, etc.



Screen 2 of 4

This screen shows the map of the just completed activity. It will display as a shape and not against a map background in line with user privacy protection.



Screen 3 of 4

This screen shows a comparison between the just completed activity screen and the rolling 3-week user average.

This ties in with Ollie's feedback that the user should be informed as to their progress achieving their fitness goals.



Screen 4 of 4

This screen shows any achievements received during the activity just completed, for example, fastest kilometre, furthest bike ride, etc.

Prototypes

- Paper Prototype
- Digital Prototype

Paper Prototype

Usability Test Video Recording

Page Content



- Usability Test Video Recording
- Usability Test Client Feedback
- Usability Test Script
- Resources

Usability Test Client Feedback

A number of issues and recommendations were raised by Ollie during the usability testing — these have not been used to modify any part of the Paper Prototype but will be used to help inform the team in construction of the Digital Prototype.

A full recording of the feedback is accessible in the client meeting minutes: [01/05/2020 - Client Meeting #4](#).

1. Increase CoachingMate branding and presence, through the use of their brand colours, logos, and CM name.
2. The main application menu should have 3 distinct pages in this order;
 - a. Calendar View — offers an overview of synced training programs by days of the month,
 - b. Today — a menu option to quickly launch into today's synced workout,
 - c. List View — offers an overview of synced training programs in a list.
3. The user should have the ability to commence an activity from the CM application even if no activity is scheduled for that day.
4. A user launching the application with no downloaded training programs should be prompted at launch to synchronise their workouts to their watch. Otherwise, the option to sync should be in Settings.
5. On the workout summary screen, the map view should not show the user's actual location of run. It should instead show the activity location on a black background, similar to this white background:



6. On the workout summary screen, it should show the amount of times spent in each "performance zone", for example, if a training program has a 5KM run with pace of 7-8 minutes/km, the screen should show how much of the user's run was within this pace bound based on different colour indicators (green being within bounds). Ollie's preference is to show this graphically on a bar chart or something similar.
7. The workout summary screen should be default and not user customisable.

8. Users should be able to view up to 3 weeks' worth of historical results. After this, results should be removed from the CM application.
-

Usability Test Script

Tester: Ollie Allan, Director and Head Coach of CoachingMate

Test Coordinator: [Luke Rosa](#)

Time: 2:30PM

Date: 01 May 2020

Instructions:

- Ask Ollie to open his Web browser to a blank page so test URLs can be shared
- Confirm with Ollie that the test can be recorded and, if agreed, commence screen recording

CoachingMate UI Tour

- Share UI tour with Ollie: <https://marvelapp.com/start-user-test/zd6CUD3m0bFQfjyP6pA9>

Explain to Ollie that, for this part, not to press any buttons unless prompted by the Test Coordinator. This is a UI tour to obtain feedback on different features and the look/feel of the application.

Explain to Ollie that the Test Coordinator will ask for opinions throughout this section but opinions and feedback can also be shared unprompted.

- Ask Ollie to click Start-Stop button to turn on the watch prototype
- Ask Ollie to launch the CoachingMate application and explain to Ollie the home page
- Ask Ollie to go into each significant menu item: Training Programs, New Workout, and Settings

UI tour should last 2-3 minutes.

User Scenarios

Explain that in each scenario, Ollie will be undertaking the test as a Persona; either the Athlete Liam or the Novice Athlete Heather and re-explain characteristics of each persona.

Explain that the scenarios are a combination of user input and animation to keep scenarios realistic to a real-life Garmin watch, so not all screens require user input and some work from a timer.

Explain that during this process, the project team will not be guiding Ollie. Ollie should be interacting solely with the watch.

Each scenario should continue until: it finishes, until Ollie expresses frustration or 60 seconds lapses.

User stories should last approximately 5 minutes.

User Scenario 1: As Heather, I want to launch the CoachingMate application so that I can complete my first activity

- Read scenario out loud to Ollie
- Share usability test with Ollie: <https://marvelapp.com/start-user-test/oGj2k8jFOW4FfL3sSO9C>

User Scenario 2: As Liam, I want to customise the CoachingMate bike activity screen so that I can see data from my power meter attached to my bike

- Read scenario out loud to Ollie
- Share usability test with Ollie: <https://marvelapp.com/start-user-test/nuOLqzjaP3rKIAGIDUHV>

User Scenario 3: As Liam, I want to commence that day's activity so I can beat my 3-week average activity time

- Read scenario out loud to Ollie
- Share usability test with Ollie: <https://marvelapp.com/start-user-test/22cLxVPs6YkexMv92892>

Probing By Team Members

- Field any questions from the project team they may have for Ollie following on from the usability tests

Follow-Up

- Field any questions from Ollie that he has about either the user scenarios or the application

Wrap Up

- Stop the screen recording and thank Ollie
-

Resources

1. Garmin branding guidelines: [available here](#)
2. Roboto font, used in prototype under free license: <https://fonts.google.com/specimen/Roboto>
3. Marvel: <https://marvelapp.com>
4. Usability test script template: <http://sensible.com/downloads/test-script-web.pdf>

Digital Prototype

Axure Digital Prototype: <https://3jfkcc.axshare.com/>

Password: abcd

Downloadable file is listed at the bottom of this page under **Resources**.

A note on compatibility: The fonts used in the Axure file were made to be used with Mac or Windows using either Safari, Firefox or Chrome. It's been noted font display issues will appear using other browsers or operating systems.

- Usability Test Client Feedback
- Usability Test Script
- Resources

Usability Test Client Feedback

A number of issues and recommendations were raised by Ollie during the usability testing — these will be used to help guide the team in finalising the Digital Prototype.

A full recording of the feedback is accessible in the client meeting minutes: [15/05/2020 - Client Meeting #5](#).

1. User interface is simple and clean, therefore easy to use. The UI gets out of the way for users and allows them to quickly see and complete training sessions.
2. Calendar view screen looks good.
3. The 3-week rolling average comparison to current activity performance is effective.
4. Further integrate CoachingMate branding and colours.
5. Throughout activities; make it easier for users to see their progress at a glance.

Usability Test Script

Tester: Ollie Allan, Director and Head Coach of CoachingMate

Test Coordinator: [Lachlan Trehewey](#) and [Mayank Tomar](#)

Time: 2:30PM

Date: 15 May 2020

Instructions:

- Ask Ollie to open his Web browser to a blank page so test URLs can be shared
- Confirm with Ollie that the test can be recorded and, if agreed, commence screen recording
- Share Axure Digital Prototype URL: <https://3jfkcc.axshare.com/>
- Share Axure Digital Prototype password: 'abcd'

Explain that in each scenario, Ollie will be undertaking the test as a Persona; either the Athlete Liam or the Novice Athlete Heather and re-explain characteristics of each persona.

Explain that the scenarios are a combination of user input and animation to keep scenarios realistic to a real-life Garmin watch, so not all screens require user input and some work from a timer.

User Stories Narratives

Explain that the below 7 narratives were based on User Stories and their corresponding Acceptance Criteria to be tested with Ollie.

Explain these 7 User Stories were chosen as together they completely illustrate the capabilities required by Ollie. This is a gauge to test that the digital prototype is consistent with Ollie's expected behaviour of the CoachingMate Garmin watch application.

User Story ID	User Story	Acceptance Criteria ID	Acceptance Criteria	Narrative Steps
US01	As a Novice Athlete, I want to download up to 1 week's worth of training activities to my CoachingMate application on my Garmin watch,	US01-AC01	Given Heather has no training sessions downloaded to her watch, When she is connected to WiFi or Bluetooth and syncs her CoachingMate application,	1. Press Start-Stop to turn on the Garmin watch, 2. Scroll down and select Settings, 3. Select Download workout,

	So that I can train for my athletic goal with the program my coach has prepared for me.		Then up to 1 week's worth of training sessions downloads to her watch.	4. Select 1 week, and 5. Up to 1 week's worth of workouts are downloaded.
US04	As a Novice Athlete, I want to view the list of sessions in a Calendar view, So that I know what training session I am going to complete on a given day.	US04-AC08	Given Heather has existing training sessions downloaded to her watch, When she navigates to the Calendar view, Then the Calendar is populated with up to 1 week's worth of already downloaded training sessions displayed on the day and date of the session.	1. Press Start-Stop to turn on the Garmin watch, 2. Ensure the application is synced (if not, first complete US01), 3. Scroll down and select Calendar, and 4. Scroll through Calendar view to see up to 1 week's worth of workouts.
US05	As a Novice Athlete, I want to view the session that I need to perform today in a separate 'Today' view, So that I can quickly start today's training session without having to search for it.	US05-AC10	Given Heather has existing training sessions downloaded to her watch, When she navigates to the Today view, Then the Today view is populated with today's training session.	1. Press Start-Stop to turn on Garmin watch, 2. Ensure the application is synced (if not, first complete US01), 3. Select Today, and 4. Today's training session (if any) shows on the watch screen.
US06	As a Novice Athlete, I want to view the list of sessions in a separate 'List' view, So that I can see all the sessions that are present in my Garmin watch in chronological order.	US06-AC12	Given Heather has existing training sessions downloaded to their watch, When she navigates to the List view, Then the List view is populated with up to 1 week's worth of already downloaded training sessions.	1. Press Start-Stop to turn on Garmin watch, 2. Ensure the application is synced (if not, first complete US01), 3. Scroll down and select Activity List, and 4. Scroll through Activity List view to see up to 1 week's worth of workouts.
US07	As a Novice Athlete, I want to be prompted with the individual activity, i.e. biking, running, and swimming, from the list of available activities, So that I can track my training session scheduled for today.	US07-AC13	Given Heather has a training session downloaded to her watch and scheduled for today, When she commences a session from the Today view, Then the Bike activity screen is displayed.	1. Press Start-Stop to turn on Garmin watch, 2. Ensure the application is synced (if not, first complete US01), 3. Select Today, 4. Today displays 5KM Run activity, 5. Scroll down one page to 10KM Bike, 6. Select Start-Stop to commence the Bike activity, and 7. Once the activity commences, the CoachingMate application tracks metadata until activity completion.
US12	As an Athlete, I want to be able to add custom screens to all types of activities and save it, So that I can collect more tracking information during my training sessions.	US12-AC18	Given Liam wants to customise an activity screen, When he navigates to application settings and customises a screen, Then the customised activity screen is shown during training activities.	1. Press Start-Stop to turn on Garmin watch, 2. Scroll down and select Settings, 3. Scroll down and select Add custom screen, 4. Scroll down and select Bike activity, 5. Select Add new, 6. Select desired screen layout by scrolling through options, 7. Select field 1, 8. Select data type to display in field 1 from selection, 9. Repeat steps 7 to 8 for all required fields, 10. Select Save and the custom screen will be saved with chosen layout and data options, 11. Go back to CoachingMate home page 12. Ensure the application is synced (if not, first complete US01), 13. Select Today, 14. Today displays 5KM Run activity, 15. Scroll down one page to 10KM Bike, 16. Select Start-Stop to commence the Bike activity, and 17. Once the activity commences, scroll down from CM default screen to use the customised screen.
US14	As an Athlete, I want to see summary results of my training session on the screen after completing the activity, So that I can see my session performance and observe my improvements compared to 3 weeks' past average.	US14-AC20	Given Liam has training sessions on his watch, When he has just completed a training session, Then he views the results from his current training session and a comparison to his past 3 week average.	1. Press Start-Stop to turn on Garmin watch, 2. Ensure the application is synced (if not, first complete US01), 3. Select Today, 4. Today displays 5KM Run activity, 5. Scroll down one page to 10KM Bike, 6. Select Start-Stop to commence the Bike activity, 7. Once the activity commences, the CoachingMate application tracks metadata until activity completion, 8. The application will flash through a sequence of warm-up, main set, and cool down,

9. After this, the application will display Workout complete,
10. Select Start-Stop to view Summary results, and
11. Select down to scroll down twice to see comparison to 3 week rolling average.

Resources

1. Axure RP source file: [here](#)
2. Usability test script template: <http://sensible.com/downloads/test-script-web.pdf>
3. Garmin branding guidelines: [available here](#)
4. Roboto font, used in prototype under free license: <https://fonts.google.com/specimen/Roboto>
5. Axure: www.axure.com