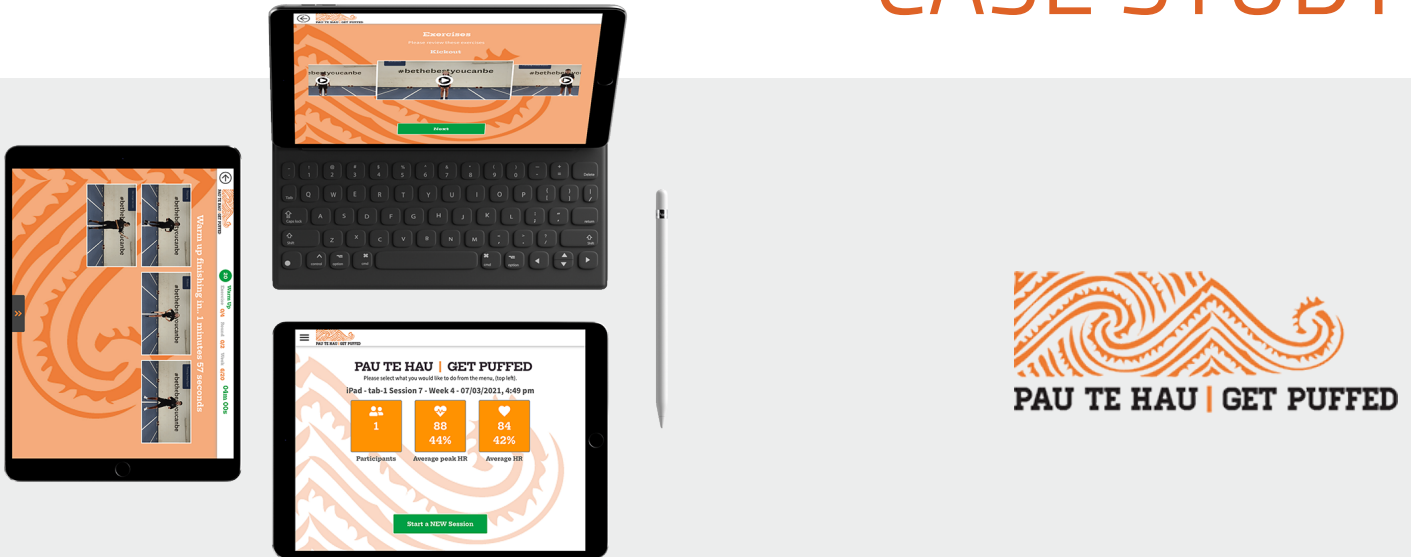


CASE STUDY



Client

Name: Auckland University of Technology (AUT)
Project: Pau Te Hau, Web App
Date: Ongoing Since 2020

Brief/Objective

FAQ were approached by The Auckland University of Technology to develop a native App to support their Pau Te Hau project.

Pau Te Hau utilises the science of HIIT, TABATA style workouts to improve students' health, fitness, wellbeing and academic performance, using short but effective exercise sessions.

The program required a variety of pre-designed workouts, including a multitude of gymnasium and sport related exercises (which could be done in-or-outdoors), and displayed as videos for clear instructional purposes.

FAQ worked closely with AUT to scope, plan and develop the app for the iOS based iPad platform. The instructor/teacher would be able to join users and monitor a group session. Once a user, typically a school student, pre determined and added to the session/class list, they were able to partake in a Pau Te Hau session.

During the session, a monitoring (polarH10) device records their heart rate in real time and reports that back to the tablet device, showing their average, current and peak heart rates and dynamically allocates their position within the class, (i.e. who has the highest average peak heart rate). A student is considered to be meeting expectations would be noted if they are above a certain percentage (ie: 85%), and are given a visual rewards (flames) in real time.

After the session is completed, the user is emailed a report of their session, and when they create their own account, they will already have all of their history retained, assuming they have used the same email address for each of their workouts and also for their new account.

Development

Our solution comprises an application connecting multiple students to partake in an activity session via Polar H10 Devices. The purpose of our solution was to capture the Heart Rate data in two different phases and find out the accumulated average and peak heart rate of the students. This development will also include a web application where the administrator can review the results of heart rate data in these sessions.

FAQ worked in conjunction with AUT and Polar in order to connect via their API and interpreted the information provided by the Polar devices. Additionally while interpreting the information from the session, FAQ developed an algorithm to define which part of the session the student was resting or in an active state, calculated from their average heart rates within a time allotted block. All information is stored in a cloud based service and can be delivered in a multitude of output reporting styles.

Result/Outcome

The app has been considered a successful addition to the AUT program and is currently undergoing various feature enhancements.