## Assignment 3 - A2GROUP8

# Team Profile

**Samuel Jones**

I have always had a personal interest in IT mostly from the perspective of video games, I spent my childhood playing video games like the Legend of Zelda and Banjo Kazooie, and other awesome Nintendo games, and I became fascinated with the IT world. However, I never really considered a career in it because I was so focused on becoming an engineer, but I eventually realised that my passion for problem solving could be used and applied in programming and development, and so I taught myself some python, and eventually decided to pursue a career in it because the logic of programming seemed to fit with how I thought and processed the world. I have little to no professional experience in the IT world, but I’m excited to see where this degree takes me.

#### Kim V Jong

My interest in IT goes back to the 80’s when my friends had Amiga 500 and Commodore 64. My first computer was a 80286 pc, before getting 80386Dx 40 and followed by 80486 DX50 in the 90’s. I started in Dos 3.3 and Windows 3.0 and did all my stuff on the pc by then. Assignments and games were all done on a computer ever since. Later in the late 90’s I worked in the IT field of assemble, diagnose and troubleshoot PC’s, servers, printers and operating system in Windows 98 / Se and Windows NT / 2000. By the time Windows XP rolled around, I started to move into Telecommunications industry in Telstra as sub-contract for 3G SDH network growth. The work requires travel around the country, and in my case majority of the east coast of Australia where the population is more dense. I have always kept up to date with IT in terms of hardware and software and I am also a PC Gamer, and have a large collection of games in steam (though I have only played a fraction of those games).

#### David Mulgrue

I’ve been living and breathing IT since I was a young child and we had our first computer, a Commodore 64. I always wanted to work out how they worked, and I was always the one that caught the blame when something went wrong because I was always tinkering, fiddling, and working things out. When finished yr12 I went into a course doing Computer forensics, which gave me enough knowledge and experience to jump into an IT support role after I dropped out of the course. Since that first job in IT, I’ve worked a lot of positions both in and out of IT, I’ve studied an Advanced Diploma in Video Game Art and Animation, and generally gained a great appreciation for the diversity and hard work that goes into even the seemingly simple games I play. Looking to the future I plan to focus on software engineering and programming to finally make my own way in the IT industry.

#### Scott Smith

I have been working in IT since 2007. During that time I have worked as a Network Engineer, Desktop Support Engineer and most recently a Project Manager. Prior to entering the IT industry, I was a member of the Australian Army for almost 8 years. I am a father of 3 children, who keep me very busy. When I am not spending time with my children, I love to go Mountain Biking. As I live in Canberra, I am very spoilt for places to go riding. As I have worked in the IT industry for over 12 years, I realise there are so many opportunities. I am excited to see where this degree takes me.

#### Jacob Smith

Hey my name is Jacob I love playing soccer, sports, skateboarding, building websites as I’ve built a few in the past but I got busy with other stuff and started a carpentry apprenticeship and I am really interested in this field of work and I would like to get some knowledge about this sort of field Hey all My name is Jacob I am 23 years of age from the central coast. I always had a passion for computers and such from a young age whether it’s gaming, making videos making music and playing a sports I started my career first as a carpenter finished that apprenticeship in 2017 now it’s time to move onto something else, from a young age About 15 I started a forum site about skating as that interested me, and a few other little niches. I guess you could say I’m trying to broaden my choices I have a little bit of experience in building websites to an extent I’m not professional I just have minimal knowledge from when I was younger doing a lot of things online keen to start the next project once I get more knowledge of the course be able to do so many more things like make a few apps and now I think it’s time to pursue a bachelor of information technology I am currently working in construction industry. I am really interested in Information Technology Because I feel I have really good ideas and I need these skills to be able to change the future for myself.

# Group Processes

During assignment two we found that it was difficult to gauge workload requirements for each aspect and so there was not a good balance for all members in the group, we are continuing to communicate via discord as we originally did, however this time we are trying to balance the work-load more appropriately so that each person can contribute their ideas whilst each doing a fair share of the workload. We will continue to try to improve this over the assignment period. However with everyone’s busy work/life balance we continue to face ongoing challenges regarding communication.

# Career Plan Comparison

Samuel Jones – Full Stack Web Developer

David Mulgrue – iOS Engineer

Scott Smith – Desktop Team Leader

Jacob Smith – Systems Analyst

Kim V Jong – Policy Analyst

Throughout our team we have a lot of diversity in terms of career goals and plans. Some of us have been in the industry for a while and are looking to expand and broaden our horizons, whilst others are just transitioning into IT now. For example, David and Sam have similar goals, that is to get into varying forms of software development, but have vastly different experience, one totally new to the industry and the other with a wealth of experience, however where David is most interested in iOS development Samuel wants to work as a full-stack web developer.  
Jacob and Scott also have similar goals in terms of providing support to an organisation, however their paths diverge where Scott wishes to lead a team of people who support a business, Jacob wants to focus on designing and implementing IT systems. Kim, is the most unique of the group, who is looking to supplement his extensive experience in IT with the ability to control and implement complex organisational policies. Where the other four are focused mostly on IT systems, their implementation or the software surrounding that, Kim is focused on a broader scope goal. For the entirety of the group, our career path is the same though. We are all focusing on completing a bachelor (IT for David, Samuel, Jacob and Scott and Arts with a major in politics for Kim).

# Tools

Group Website - <https://kvjong.github.io/FitnessApp/>

Group GitHub - <https://github.com/Kvjong/FitnessApp>

Regarding our audit trail … /\*To be completed\*/

# Project Overview

#### Focus The major goal for our application is to provide a progression and education focused framework for users to implement in their lifestyle. This framework will ultimately allow to the user achieve success in three key areas, diet, fitness programming and personal fitness goals. Whilst achieving these goals, the core design philosophy of the application is this: “Small achievable goals that end in successes, result in long-lasting changes in lifestyle”. The three key focuses of the application are as below.

#### Firstly, our app will provide the user with the tools and education to control and manage their diet. This will come in many forms including; calorie counting, educational documentation/videos to demystify the information surrounding food, customised meal plans for the user that shows them what to do in terms of food in-take and educates them as to why these things are important and how it works in the bigger picture, which is a key ingredient in implementing long-term change.

#### Secondly, the application will provide the user with the tools and education to manage their workout programs, allowing them to customise their workout based on personal preference, target areas, experience/fitness level. This component will include education on how to exercise each area of the body, what different exercises do for them physiologically and provide varying levels of intensity based on their physical attributes.

#### Lastly, the fitness app will tie the first two components in to a targeted and achievable plan which helps the user to focus on implementing changes in their lifestyle through small incremental goals. This component will be designed so that each goal is targeted and personal whilst manageable so that the user develops long-term habits without feeling like they have failed if they suffer setbacks. This is the core concept of our application and where the largest portion of work will go, including to developing proprietary personal progression software which uses user generated photos to measure progression over a set period. It should be mentioned, that whilst this is the current focus of the application, there is a potential to pivot this into an app specifically designed for Personal Trainers to provide custom programming and meal plans for their clients, however base functionality will be quite similar, we will be noting some aspects that are “potential” in terms of this consideration.

#### Motivations Accessibility and convenience are vitally important, but when it comes to actual users personalisation is a major factor in long-term use of mobile fitness applications[[1]](#footnote-1) This application focuses on that need for the user to have a specific program for their lifestyle, because as we can see from the top 20 fitness trends[[2]](#footnote-2) worldwide, there is a diverse demand from users for their fitness needs, so how can you fit them all with a single program? The answer is that you cannot, but what you can do, is design individualised content that cares about the users desires and focuses them. This is the key motivator for this application in terms of intention. Regarding professional motivations, this application will show future employers that we can work in a major development project that combines complex programming with multi-disciplinary collaboration (from software, to medical professionals), as well as manage large-scale projects.

#### Commercial Landscape There is a wide range of Mobile Fitness Applications on the market currently, all which implement varying components of our design, be that food management, meal plans, workout plans, weight loss goals. Two fantastic examples of this are MyFitnessPal and Strong5x5. MyFitnessPal is primarily a food management application which utilises a food diary to help the user achieve their weight loss goals, the inclusion of exercise plans is minimal. Conversely, Strong5x5 is a singly focused exercise application which follows along a specific strength training program, this gives the user a clear goal and helps them incrementally improve their overall strength. Whilst both of these applications are fantastic in that they set out to achieve a specific goal and they provide the user with fantastic tools to achieve this, they ultimately fail to address the multi-faceted nature of health and fitness, and fail to truly give their users the skills required to one day be application independent. Our application intends to address this issue, by creating more intuitive and personalised plans that consider each user’s unique attributes.

# Project Plan

#### Aim

#### Plans and Progress

#### Roles

#### Scope and Limits

#### The scope of our project is essentially split into fundamental deliverables, which are the basis of our concept and required to get off the ground and provide a unique product, and then potential features which are not part of the core offering of the project but will enhance the user experience. One thing to note of regarding mobile fitness applications, however, is that perceived ease of use directly affects whether a user will continue to utilise the application, and their enjoyment in using it, so we must make sure that each feature provides value combined with functionality, rather than just another feature on the feature list.

#### Regarding our key deliverables, they are shown as below, separated into the following, KEY which are required functionality and will be completed and POTENTIAL these are components that may be included depending on time limitations, but are the features which will take the app from matching the industry to one that goes above and beyond. For clarity of scope, we will consider all KEY functionality to be the scope of the project, and all potential to be stretch development or pivot goals which CANNOT be started until the key functionality is completed. Whilst scope creep is an issue with app development, it cannot suppress innovation, a balance needs to be struck.

#### Food Diary - Key a) Functionality for tracking and counting calories, this will be integrated with a library of existing foods and their related energy. (Will be known as food diary) b) Monthly/Weekly summaries, including graphical representation of calories consumed. c) Macronutrient tracking, including integrating with libraries which provide specific information on this too. Potential a) Integration with the weekly meal plan, so that the meal plan pre-fills the daily diary, and the user can manipulate the information in there. b) Barcode scanning for calorie information, commonly utilised in food tracking apps but may be outside the scope of our development team.

#### Meal Plans -

#### Key a) Pre-generated weekly meal plans based on specific user information, including functionality to replace meals with alternatives that fulfill similar requirements (ie by calories or by macronutrients though these are similar in effect, there is a common distinction in the industry)

#### Potential a) Diet on a budget, low cost meal plans. b) Custom meal plans submitted by PTs, to be inserted into user profiles.

#### Workout - Key a) Workout tracking functionality, a set amount of exercises which are installed into the app, allowing the user to track weight/repetitions of these exercises b) Workout programs, pre-generated 12 week programs which focus on specific user set goals, that provide a set routine and allow the user to track their weight lifting/running time etc progress and represents it graphically in a weekly/monthly format. Potential a) Personal Trainer generated workouts that are submitted for their clients. b) Visual progress tracker, and potential software that gives the user indication of changes to their body based on photos provided.

#### Education *Education components will be sub-aspects of the above, but it is worth considering it as its own entity in terms of development scope as there is a significant time cost to this component. This component deserves its own full plan, and will come last in the development phase, after designing the core components of the application.* Key a) Modules covering basics of food intake/versus output and how that relates to weight gain weight loss. b) Modules covering key exercises and correct form to avoid injury, incorporating basic education in physiology regarding understand of targeting muscle groups. Potential a) Ongoing modules that expand on basic concepts. Articles/Videos. This is all dependant on the timeframe of course, and if we can complete everything excluding education in the initial development phase, we will have skeleton of an excellent health and fitness application.

#### Tools & Technologies

#### Testing

#### Time Frame

#### Risks

#### Group Processes and Communication

1. Jang Yul, Kwak. "Determinants of Users Intention to Adopt Mobile Fitness Applications: an Extended Technology Acceptance Model Approach." (2014). https://digitalrepository.unm.edu/educ\_hess\_etds/16 [↑](#footnote-ref-1)
2. Thompson, Walter R. Ph.D., “FACSM ACSM's Health & Fitness Journal: [November/December 2019 - Volume 23 - Issue 6 - p 10-18](https://journals.lww.com/acsm-healthfitness/toc/2019/11000)” [↑](#footnote-ref-2)