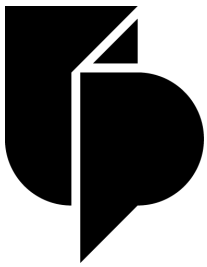


UNIVERSITY OF PORTSMOUTH

School of Computing
Project Initiation Document

Daniel Sindila

Social Fitness Android Application

Engineering Project

1. Basic details

Student name:	Daniel Sindila
Draft project title:	Social Fitness Android Application
Course:	Computer Science
Project supervisor:	Uchenna Ogenyi
Client organisation:	N/A
Client contact name:	N/A

2. Degree suitability

The project satisfies the computer science criteria because I will be identifying a problem (the problem is explained in the next section), and using my problem-solving skills to come up with a design for a computer system that will solve the given problem.

3. Outline of the project environment and problem to be solved

The problem that will be investigated is people living a sedentary lifestyle due to social media, and not being motivated to exercise, and how certain aspects of social media could be used to create an application that motivates and encourages people to be more active.

This is worth working on because in today's world people spend loads of time on social media living a sedentary lifestyle which has a large impact on societies health. However social media could be leveraged to instead motivate people to exercise more and live a more active lifestyle hopefully improving everyone's overall health.

4. Project aim and objectives

The overall aim of the project is to produce a social fitness application that will help people be motivated to live a more active lifestyle. The application will have the core fitness features such as tracking exercise, food and water intake, as well as incorporate the social media aspects so users can add friends, join fitness groups, and post achievements on their profiles.

Various objectives will be required to meet this aim such as:

1. Research the effects of social media and how it could be used to motivate people.
2. Explore methodologies and practices to determine which is the best approach for developing the application.
3. Research and collect data to determine the requirements and which features would best fit the application.

4. Produce requirement specification documents and design documents for the application.
5. Implement and test the application to ensure it meets the requirements.
6. Have the final application

5. Project deliverables

- Document containing an overview of the project plan
- Requirement Specification Document
- Design Document
- Code and testing strategies documentation
- Source code
- Final application

6. Project constraints

Time - Time will be a constraint because there will always be improvements that could be made while developing an application. Therefore good time management will need to be followed to prevent overengineering the project.
Skill - Skill will be a constraint because I might run into issues that are out of my skill reach.
Technology - The technology used will also be a constraint as it may not allow for certain features to be implemented or work as desired.
Testing - Having another person install and test the application might be difficult or not possible to do.

7. Project approach

1. Do background research on the relationship between social media and fitness.
2. Look at existing applications that are similar to mine, to determine what worked best for them, and implement the best features into my application.
3. If possible create surveys and have other people (students, friends, family, etc) answer questions to determine requirements and features that should be implemented.
4. Research the technologies that will be required and create the Requirements Specification Document.
5. Research and analyse the architecture and design of the application, and produces the Design Document.

8. Literature review plan

For research, I will be reading scholarly articles regarding social media and motivation, the effects of social media, fitness and social media, staying consistent with exercise. I will also take a look at existing systems that are similar to mine and see what made them successful. Articles regarding existing systems will also be read to see what others have learned from putting social media and fitness together. An example of the kinds of articles I'll be reading is:
Chen, Y.,Zhang, J., & Pu., P. (2014). Exploring Social Accountability for Pervasive Fitness App. ResearchGate.
https://www.researchgate.net/profile/Yu-Chen-309/publication/287832793_Exploring_social_accountability_for_pervasive_fitness_apps/links/580f97af08aef2ef97afe810/Exploring-social-accountability-for-pervasive-fitness-apps.pdf

9. Facilities and resources

No special facilities or funding will be required for this project. Only an android phone and a computer that can run java, android studio, and mobile emulator software are required, all of which is already available.

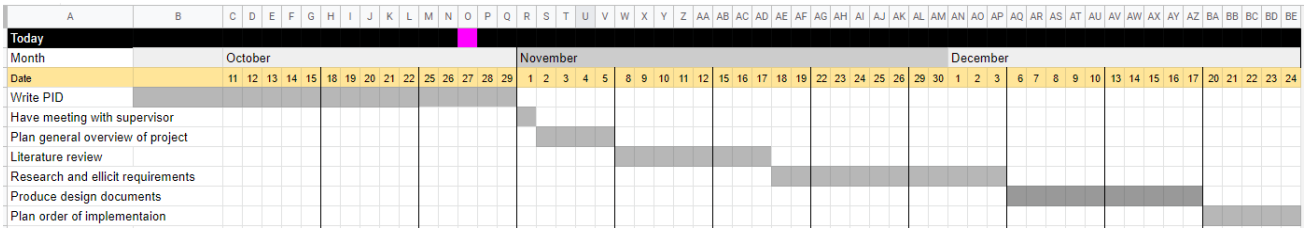
10. Log of risks

Description	Impact	Likelihood	Mitigation	First indicator
COVID-19 Breakout making it difficult to meet with supervisor or work on the project if sick.	High	Likely	Try and meet with a supervisor as often as possible. Stay away from areas where the risk of infection is high.	Announcement of increase in cases, or a positive test.
Inaccurate time and difficulty estimation	High	Medium	Complete as much as possible before the given time then work on the report	Spending much longer on implementing a feature than planned
Requirements and design are not clearly defined/ understood	High	Low	Ask the supervisor to look over requirements to make sure they are well defined.	The program is missing some of the requirements.
Loss or damage to	Severe	Low	Create backups of	Files missing/ The

data/computer resulting in loss of work.			work every week to prevent losing everything.	computer not turning on.
The project strays far away from the original plan	High	Low	To look over requirements and design documents to stay on track	Lots of features have been implemented but none from the requirements document.
Poor code quality	Medium	Medium	Use linting and other applications to analyse code.	Linting test fails

11. Project plan

1. Create a general overview of the plan for the whole project and put it into a document.
2. Work on literature review read through different research that has been done and look at existing systems similar to mine.
3. Elicit requirements and create a System Requirements Specification document.
4. Produce Design document.
5. Plan the order in which to implement each feature and the amount of time allocated to implementing each feature.
6. Begin Implementation of each feature along with testing, keeping notes on the progress and changes made to add in the report.
7. Review all the work at the end and create documentation for further development and maintenance.



12. Legal, ethical, professional, social issues (mandatory)

The Ethical form has been filled out and submitted.

There are some security implications and I confirm that I have considered the implications for the data collection and use, taking into consideration legal requirements (UK GDPR, Data Protection Act 2018 etc). To mitigate this all the sensitive data will be hashed and

security will also be closely worked on throughout the process of development to make sure it is in line with the legal requirements.