Imperial College London

Department of Computing
Individual Project Interim Report

Name

Walking app

Author:
Jonathan Muller

Supervisor:
Professor Michael Huth

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Chapter 1

Introduction

1.1 Motivation

In this day and age, it is extremely important to keep fit. With the rapid development in technology in the recent years, people are more inclined to stay inside looking at a screen rather than go outside and exercise.

A great way to encourage people to exercise and keep fit is to aid them into discovering new places in the area around them.

1.2 Objectives

The aim of the project is to produce a working application that encourages people to walk more and helps discover new places in the world. The main objectives for the project are as follows:

Obj 1 Build a fully functioning iOS application with a simple design and an easy to use user interface.

Obj 2 Allow the user to track the routes of the walks they go on, as well as provide statistics about the walk such as distance travelled and calories burned.

Obj 3 During a walk, the application will display certain points of interest on a map near the user's current location.

Obj 4 Each user should be able to register an account within the application and publish their tracked walks to their profile if they wish.

Obj 5 The application should display a list of the most popular walks in the area around you, with each walk containing statistics about how many times it has been walked and which user has walked it the most.

Obj 6 Users should be able to invite other users to go on a walk together and schedule this walk for a point in the future.

Obj 7 The application should contain some level of gamification - each user will have a score on their profile based on how far they have walked in total, how many walks they have been on and how often they go for a walk.

Chapter 2

Background

2.1 Existing Applications

2.1.1 Walking Apps

Table 2.1 shows what features each of the existing applications related to this project have implemented. The maximum score for the feature category is displayed in brackets.

Features	MapMyWalk	Strava	Let's Walk	Pokémon Go
Design (2)	2	2	2	2
Ease of use (3)	3	3	2	3
Tracking location (2)	2	2	2	1
Navigation (4)	3	1	1	2
Social interaction (5)	2	2	2	0
Total	12	10	9	8

Table 2.1: Matrix showing how well existing walking apps perform at given features

The full matrix detailing what aspects each feature category is split into can be seen in Appendix A.

2.1.2 Navigation Apps

Although existing navigation apps do not contain any features relating to tracking walks, they do provide information about how journeys and places are displayed on a map.

2.2 Technologies

2.2.1 Operating System

2.2.2 Web Server

2.2.3 Database

2.2.4 APIs

2.3 Software Engineering Methods

2.3.1 Version Control

2.3.2 Task Management

2.3.3

Chapter 3

Project Plan

3.1 Extensions

Should the objectives listed in Section 1.2 be completed before the end of the project and there is enough time remaining, I have created a list of extensions that I would like to implement to extend the app's functionality.

Ext 1 Add the ability for users to add each other as friends within the app.

Ext 2 A recent activity feed could be added to show users what walks their friends have been on recently.

Ext 3 The user should be able to take photos during a walk and then publish these photos to their profile along with the walk.

Ext 4 Extend the gamification aspect of the app - users could set each other challenges to encourage a higher level of fitness.

Chapter 4

Evaluation Plan

Appendix A

Existing applications matrix