WikiWalks – Project Plan

# Introduction

This document contains information on the plan of the WikiWalks project - an app to collect and display bush paths within Australia. The end goal is to create functional back-end and front-end software that makes for an easy and efficient end user experience.

# Project Organisation

The project team will be made up of three people - Joey, Tyler, and Sanjay, with Joey as the team leader. A fourth member, Isaac, was present for the first two iterations but has left the team. Joey is the team leader. All members have some programming experience, and will be working on the development of the back-end and front-end of the system, with Joey being most experienced with technologies for the back-end and Tyler and Sanjay being most experienced with technologies for the front-end. The team will be using a Discord server to communicate and hold weekly team and oversight meetings, with Joey recording each meeting.

# Project Practices & Measurements

The project will by utilising iterative development, with each iteration being two weeks. The progress on tasks will be monitored by checking Git commits, as well as having meetings mid-way through each iteration, and regular text communication to ensure everyone is on the right track. At the end of each iteration, the progress will be assessed by testing the implementation of features to ensure they are correct, complete, and bug-free. If all 3 are checked, the iteration task will be marked as properly completed. If not, the next iteration plan will be written to include fixing any problems.

# Deployment

The back-end will be deployed onto the server by pulling from a Git repository, creating a Python virtual environment, and installing the required dependencies through pip. Once code updates are made, they can be pushed to the repo, and then pulled onto the server. As the site will be made using Python, there is no compilation required, so it’s as simple as pulling the new .py files, updating the dependencies if required, and restarting the server.

The front-end will be deployed by compiling the application into an APK file so it can be installed on Android devices, followed by uploading the APK to the Google Play store. Updates will be done by using the Google Play Developer Publishing API in order to push and release new versions of the app to the store easily.

# Project Milestones & Objectives

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| Subject | Phase | Iteration | Dates | Primary Objectives |
| ITC303 – Software Development Project 1 | Inception Phase | I-1 | 16/03 – 29/03 | Create vision  Create initial use case model  Create initial domain model  Identify critical core use case  Identify architectures and technology platforms |
| I-2 | 30/03 – 12/04 | Evaluate candidate architecture and platforms  Design critical core use case  Create tech competency demonstrators  Create master test plan  Create project plan  Create risk list  Complete phase status assessment  Submit LCOM |
| Elaboration Phase | E-1 | 13/04 – 26/04 | Implement back-end server with ability to add paths to and send paths from a database  Ensure web server is configured to properly allow access to only what is needed  Test that paths can be retrieved from a given area of coordinates  Test that invalid paths are rejected |
| E-2 | 27/04 – 10/05 | Begin development of Android app  Implement pulling maps from Google Maps  Implement automatically pulling paths from the database and overlaying on the maps |
| E-3 | 11/05 – 24/05 | Continue development of Android app  Implement a UI for walking paths  Add the ability to record paths  Test recording paths and uploading them to the server  Ensure uploaded paths are accurate |
| E-4 | 25/05 – 07/06 | Perform unit and integration tests  Perform basic acceptance tests  Revise architecture and design documentation  Revise project plan  Revise vision  Complete phase status assessment  Submit LCAM |
| Mid-year Semester Break | | | | |
| ITC309 – Software Development Project 2 | Construction Phase | C-1 | 13/07 – 26/07 | Add marking and displaying points of interest  Add rating and reporting paths  Improve UI  Test points of interest  Integrate features ensuring no bugs |
| C-2 | 27/07 – 09/08 | Add scheduling walks  Add saving paths for later  Add saving areas offline  Test saving areas offline  Test scheduling walks  Integrate features ensuring no bugs |
| C-3 | 10/08 – 23/08 | Add optional walking statistic tracking  Add distance goals  Add backing up settings  Improve path accuracy if possible  Integrate features ensuring no bugs |
| C-4 | 24/08 – 06/09 | Make small QOL adjustments  Contingency  Deliver Initial Operation Capability Milestone (IOCM)  Complete Construction Phase Project Assessment |
| Transition Phase | T-1 | 07/09 – 20/09 | Deploy application in trial environment  User acceptance test basic features (walking / recording / rating paths, UI)  Resolve any identified issues |
| T-2 | 21/09 – 03/10 | UAT secondary features (backups, statistics, scheduling, saving offline)  Secondary UAT of basic features to ensure any problems were fixed  Resolve any identified Issues |
| T-3 | 04/10 – 16/10 | Contingency  Deliver Product Release Milestone (PRM)  Complete Final Project Assessment |