UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Software Requirements Specification for the NavUP System

Version: 1.0

February 19, 2017

Team Olive

Student:	*Student number:*
Keoagile Dinake	u15041744
Mark Klingenberg	
Andrew le Roux	u15311644
Hlulani Makamu	u17223832
Banele Nxumalo	u12201911
Letlhogonolo Tom	u13325095

Contents

1 Introduction

...

1.1 Purpose

...

1.2 Scope

...

1.3 Definition, Acronyms, and Abbreviations

...

1.4 References

...

1.5 Overview

...

2 Overall Description

2.1 Product Perspective

The software will be a stand-alone mobile navigation application built for both Android and iOS devices.

It differs from related products in the marketplace as it focuses on both indoor and outdoor navigation of the user within the grounds of a single property, instead of the usual street navigation.

This system can be extended to integrate with other applications that can notify a user about activities/interests close to the user.

2.1.1 System Interfaces

External interfaces will include:

- WiFi access points
- Google maps API

- GPS
- Event calendar applications

2.1.2 User Interfaces

The user will interface with the application using the Android or iOS mobile applications. These applications will give the user access to the following pages:

- Registration/login pages
- Map screen
- Notifications page
- Settings page

Additionally, an admin user will have access to the following pages:

- Admin page
- Create notifications page

2.1.3 Hardware Interfaces

The application does not have any direct hardware interface requirements.

2.1.4 Software Interfaces

The application will determine the user's location using a combination of the Google Maps API, the device's GPS system, and nearby WiFi access points.

It will also integrate with other applications handling upcoming events/activities/interests and notify the user about relevant and nearby ones.

2.1.5 Communications Interfaces

Communications will be encrypted using HTTPS protocol.

2.1.6 Memory

As this will be a mobile application for students, memory constraints need to be below the average RAM of a student's smart phone. Earlier devices had a per-app cap of 16MB, and later devices increased that to 24MB or 32MB. Therefore in order to make the application accessible to the largest possible market it should preferable not exceed 16MB of RAM, and definitely not 24MB of RAM.

2.1.7 Operations

...

2.1.8 Site Application Requirements

...

2.2 Product Functions

...

2.3 User Charateristics

...

2.4 Constraints

...

2.5 Assumptions and Dependencies

...

3 Specific Requirements

...

3.1 External Interface Requirements

...

3.2 Functional Requirements

...

3.3 Preformance Requirements

...

3.4 Design Constraints

...

3.5 Software System attributes

...

3.6 Other Requirements

...