3.1 External Interface Requirements

3.1.1 User Interface

The user interface is likely to be used by students and staff alike, and many visitors to the

campus, the interface therefore should be friendly and easy to use for all ages. The interface

should include functionality for users to login and create personal profiles so that they can use

the rewards system and access other functionality. There should also be different interface for

administrative users who must be able to create point of interest and update activities and

update and capture location data.

The mobile application will interface with the supported input and output

features of the host's operating system. Inputs include text that the user

will enter for login or searching a venue. Outputs include the type of fonts

to display text or graphics to show images or draw the map.

3.1.2 Hardware Interfaces

Since neither the mobile application nor the web portal have any designated

hardware, it does not have any direct hardware interfaces. The WiFi software

in the mobile phone manages the built-in WiFi and the hardware connection

to the database server is managed by the underlying operating system on the

mobile phone and the web server.

3.1.3 Software Interfaces

The mobile application communicates with the WiFi software in order to get

signal strength information from multiple WiFi access points to determine

(using triangulation) where the user is located. The communication software

between the database and mobile application consists of operation concerning

creating, reading, removing and modifying the data.

3.1.4 Communication Interfaces

The communication between the di  
erent parts of the system is important

since they depend on each other. However, in what way the communication

is achieved is not important for the system and is therefore handled by the

underlying operating systems for both the mobile application and the back-

end of the system.