Assignment 3 – Mobile Services

Distributed and Mobile Systems

# Brief

The purpose of this assignment is to create an android application with services to communicate between two or more android devices. The purpose of the android application is up to the project team, but must show implementations of two services. These two services can be chosen from the following four: Messaging service, Bluetooth service, Location-based service, Near field communication.

* Messaging service: Utilizes SMS and/or MMS messaging between two mobile devices
* Bluetooth service: Uses the Client/Server communication between two devices via Bluetooth.
* Location-based service: Uses the device’s location to do some sort of operation
* Near Field Communication: uses tags to send information from one device to another.

# The Android Application

The android application the project team is developing is called “Pokimin”. It is a parody in the more popular Pokémon game. For the sake of demonstrating this application, Pokimin will only focus on the battle aspect of Pokémon with the inclusion of other features.

## Battle objective

A battle within the Pokimin application is between two players. Each player’s active minion will fight in this battle. The objective of this battle is to reduce the opponent’s minion’s health down to 0 before the opponent reduces your minion’s health down to 0. The last minion standing will announce their owner as the winner of the battle.

## Levelling minions

The player is given the opportunity to grow their minions by increasing their stats. This will be measured by the minion’s level. The higher the minion’s level, the more advantageous against your opponent’s minion during a battle. In order to increase the minions level, the player can choose to gain experience points either by battles with other players or walking specific distances. Once the minion has sufficient experience points, the minion will level up. Therefore, increasing the stats of the minion.

## Services

The two services being implementing into the Pokimin application are:

* Bluetooth service: Messages are sent from one device to another to simulate a player verses player battle.
* Location-based service: the calculation of the device’s current location and the device’s previous location to generate experience for the minion to increase its level.