# Implementation Plan

# **Implementation Plan**

## **System Configuration**

Hardware:

* Raspberry Pi 2
* gizDuino 4.1 Arduino-compatible board
* gizDuino GPS module w/ antenna
* smartphone
* personal computer/laptop

Software:

* Raspbian (Debian-based Linux OS) for Raspberry Pi 2
* Android 4.0+ and iOS 7 for smartphones
* Windows 7, 8, 8.1, or 10 for personal computer/laptop
* Google Chrome 45 or Mozilla Firefox 41
* Python 2.7 installed in Raspberry Pi 2
* JavaScript enabled in web browsers

Other Peripherals:

* Serial to USB cable
* WiFi adapter

Facilities:

* Internet connection (DSL and pocket WiFi)
* Backend-as-a-Service provider

## Time Table of Activities

|  |  |  |
| --- | --- | --- |
| **Phase 1** | **Phase 2** | **Phase 3** |
| 1. Setup database in the backend-as-a-service provider 2. Setup server for the web application 3. Install the web application into the web server 4. Connect web application to the backend database and perform necessary configurations (e.g. access control list) | 1. Perform final integration testing of the whole system 2. Build and prepare the release/stable version of the mobile application | 1. Distribute the mobile application through the platform’s application store 2. Perform maintenance and troubleshooting as needed |

## Cost Estimate

|  |  |
| --- | --- |
| **Item** | **Price** |
| Apple App Developer account | $ 99/year |
| Domain registration | $ 10/year |
| Web servers (2) | $ 20/server/month |
| Backend-as-a-Service Account | $ 700/month |
| **Total** | $ 8,989 |