05/03/2013

**The notifiers**

**Version 1.0**

**IUNotifier Application**

**Project Plan**

**Contents**

[I. Statement of Work 3](#_Toc350587561)

[**1.** **Features and Development Phases** 3](#_Toc350587562)

[**a.** **Sprint 1 (10/3/2013 – 17/3/2013)** 3](#_Toc350587563)

[**b.** **Sprint 2 (17/03/2013 – 30/03/2013)** 3](#_Toc350587564)

[**c.** **Sprint 3 (31/03/2013 – 13/04/2013)** 3](#_Toc350587565)

[**d.** **Sprint 4 (optional)** 3](#_Toc350587566)

[**2.** **Document and Work Products** 3](#_Toc350587567)

[**a.** **System Requirement Specification (SRS)** 3](#_Toc350587568)

[**b.** **System Design Specification (SDS)** 4](#_Toc350587569)

[**c.** **Source Code** 4](#_Toc350587570)

[**d.** **Test Plan** 4](#_Toc350587571)

[II. Resource List 4](#_Toc350587572)

[**1.** **Human Resources** 4](#_Toc350587573)

[**2.** **Software Resources** 4](#_Toc350587574)

[III. Project Schedule and Estimation 5](#_Toc350587575)

[**1.** **List of Tasks** 5](#_Toc350587576)

[**2.** **Task Dependencies** 6](#_Toc350587577)

[**3.** **Effort and duration** 7](#_Toc350587578)

[IV. Risk Plan 8](#_Toc350587579)

[**1.** **Potential Risks** 8](#_Toc350587580)

[**2.** **Risk Plan** 8](#_Toc350587581)

# **Statement of Work**

## **Features and Development Phases**

The project IUNotifier will be divided into several sprint cycles:

### **Sprint 1 (10/3/2013 – 17/3/2013)**

In the first sprint, our team will focus on researching the Android platform and the push mechanism on Android. We will also study tutorials, similar application and sample codes. The result of the first sprint will be a set of codes that we will use for the IUNotifier application.

### **Sprint 2 (17/03/2013 – 30/03/2013)**

* **News & Announcement**
* Allows users to stay up to date with latest news from the university.
* Users can view the most recent articles or browse the articles in specific categories.
* **Events**
* Allows users to manage the timing of future events related to the university.
* The events will be listed with calendar view (additional views in further releases)
* **Notifications**
* The users will be notified about upcoming to make sure they don’t missed it.

### **Sprint 3 (31/03/2013 – 13/04/2013)**

* **Courses**
* Allows user to access the details of every courses that are opened in the semester.
* Students can view the list of courses that they have enrolled in.
* Teachers and staff can view and modify the information of their courses or push urgent announcements to the students.
* **Extended Notification**
* The notification function will be extended to include the latest announcements related to the students’ courses.

### **Sprint 4 (optional)**

* **Helps and Guides**
* Useful guides about frequently asked questions.
* Office phone numbers.
* Link to university websites.
* **Interactive map**
* Find exact location and locate nearby buildings.
* Search for route between buildings.

## **Document and Work Products**

During the process of development, these documents will be released to customers. These exclude *Vision and Scope* and *Project Plan*

### **System Requirement Specification (SRS)**

This document specifies all requirements for the system, it contains a discussion summary to conclude the key points collected after interviewing and discussing with customers; a list of functional, non-functional and domain requirements, a set of representative use cases to point out exactly how the customer will interact with the system; a change control report to preview that how the development process will be changed if the requirement changes.

### **System Design Specification (SDS)**

This document defines the system design. It includes architectural design, object oriented design with use case, class, sequence and activity diagram; other system information like data type, data object, data dictionary and unit testing reporting.

### **Source Code**

This describes the behavior of the system through the programming language, every functionality, module or library will come along with a guideline to show the task of each one in case the system will be upgraded.

### **Test Plan**

This specifies the testing process; or specifically it points out which part will be tested with which case; a list of step-by-step test case to make sure that no step will be skipped; a defect report to log the location where the bugs may arised; a user acceptance plan to see the condition that the result will be accepted.

# **Resource List**

## **Human Resources**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Name | Role | Phone Number | Email Address |
| 1 | **Phạm Hoàng Long** | Scrum Master | 0989034203 | [longpham3105@gmail.com](mailto:longpham3105@gmail.com) |
| 2 | **Nguyễn Huy Hùng** | Business Analysist  Developer | 01698225425 | [huyhung411991@gmail.com](mailto:huyhung411991@gmail.com) |
| 3 | **Nguyễn Duy Anh** | Developer | 0935571991 | [nda1291@yahoo.com](mailto:nda1291@yahoo.com) |

## **Software Resources**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Name | Description | Used By | Availability |
| 1 | Microsoft Words | Word Processing Software | Long, Hung, Anh | 3 |
| 2 | Scrumpy | Scrum Project Management Tool | Long | 1 |
| 3 | Adobe Photoshop CS6 | Graphic Processing Program | Long | 1 |
| 4 | Android SDK with Eclipse | Software Development Kit | Hùng, Anh | 2 |
| 5 | Android Emulator | Emulator of Android Devices | Long, Hung, Anh | 3 |
| 6 | MySQL Database 5.6.10 | Database Management System | Long, Hung, Anh | 3 |
| 7 | Tomcat 7.0.3 | Web Server | Long, Hung, Anh | 3 |
| 8 | Navicat for MySQL 10.1.7 | Graphical Database Management Tool | Long, Hung, Anh | 3 |

# **Project Schedule and Estimation**

## **List of Tasks**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No. | Task | Efforts | Person in Charge | Sprint | Release | Date Added |
| 1 | Download and install Android SDK | XS | Anh, Hung | 1 | 1.0 | 02/03/2013 |
| 2 | Configure and test the Android emulator  Acquire Android devices for testing | XS | Anh, Hung | 1 | 1.0 | 02/03/2013 |
| 3 | Learn Android programming | M | Anh, Hung, Long | 1 | 1.0 | 04/03/2013 |
| 4 | Do research on Android push mechanism | M | Hung | 1 | 1.0 | 04/03/2013 |
| 5 | Do research on Android API for interacting with MySQL database | M | Anh | 1 | 1.0 | 04/03/2013 |
| 6 | Study the GUI design of popular & similar news apps | S | Long | 1 | 1.0 | 04/03/2013 |
| 7 | Design the architecture | S | Hung | 1 | 1.0 | 04/03/2013 |
| 8 | Design the database for “News” and “Events” feature | S | Hung | 2 | 1.0 | 04/03/2013 |
| 9 | Design the main menu | M | Long | 2 | 1.0 | 04/03/2013 |
| 10 | Design the GUI for “News” feature | S | Long | 2 | 1.0 | 04/03/2013 |
| 11 | Implement the “News” feature | M | Hung | 2 | 1.0 | 04/03/2013 |
| 12 | Design the calendar interface for “Events” feature | S | Long | 2 | 1.0 | 04/03/2013 |
| 13 | Implement the “Events” feature | M | Anh | 2 | 1.0 | 04/03/2013 |
| 14 | Design the Notification board | M | Long | 2 | 1.0 | 04/03/2013 |
| 15 | Implement the Notification mechanism with upcoming events | L | Hung | 2 | 1.0 | 04/03/2013 |
| 16 | Test the Notification mechanism | S | Anh | 2 | 1.0 | 04/03/2013 |
| 17 | Functional testing: “News” feature, “Events” feature | S | Hung | 2 | 1.0 | 04/03/2013 |
| 18 | Expand the database for “Courses” feature | M | Long | 3 | 1.1 | 05/03/2013 |
| 19 | Design the GUI for “Courses” feature | M | Long | 3 | 1.1 | 05/03/2013 |
| 20 | Implement the “Courses” feature | M | Hung, Anh | 3 | 1.1 | 05/03/2013 |
| 21 | Apply the Notification mechanism with course announcements | M | Hung | 3 | 1.1 | 05/03/2013 |
| 22 | Retest the Notification mechanism | S | Anh | 3 | 1.1 | 05/03/2013 |
| 23 | Functional testing: “Courses” feature | S | Long | 3 | 1.1 | 05/03/2013 |
| 24 | Test the whole application | M | Long, Hung, Anh | 3 | 1.1 | 05/03/2013 |

## **Task Dependencies**

|  |  |  |
| --- | --- | --- |
| No | Tasks | Dependency |
| 1 | Download and install Android SDK |  |
| 2 | Configure and test the Android emulator  Acquire Android device for testing | 1 |
| 3 | Learn Android programming | 1, 2 |
| 4 | Do research about Android push mechanism |  |
| 5 | Do research on Android API for interacting with MySQL database |  |
| 6 | Study the GUI design of popular & similar news apps |  |
| 7 | Design the architecture |  |
| 8 | Design the database for “News” and “Events” feature |  |
| 9 | Design the main menu | 6 |
| 10 | Design the GUI for “News” feature | 6, 9 |
| 11 | Implement the “News” feature | 5, 8, 10 |
| 12 | Design the calendar interface for “Events” feature | 6, 9 |
| 13 | Implement the “Events” feature | 5, 8, 12 |
| 14 | Design the Notification board interface | 6, 9 |
| 15 | Implement the Notification mechanism with upcoming events | 4, 13, 14 |
| 16 | Test the Notification mechanism | 15 |
| 17 | Functional testing: “News” feature, “Events” feature | 11, 13, 15, 16 |
| 18 | Expand the database for “Courses” feature |  |
| 19 | Design the GUI for “Courses” feature | 6, 9 |
| 20 | Implement the “Courses” feature | 5, 19 |
| 21 | Apply the Notification mechanism with course announcements | 15, 16, 20 |
| 22 | Retest the Notification mechanism | 21 |
| 23 | Functional testing: “Courses” feature | 20, 22 |
| 24 | Test the whole application | 17, 23 |

## **Effort and duration**

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Tasks | Effort (person-hour) | Duration (day) |
| 1 | Download and install Android SDK. | 1 x 2 = 2 | 1 |
| 2 | Configure and test the Android emulator.  Acquire Android device for testing. | 2 x 2 = 4 | 1 |
| 3 | Learn Android programming. | 10 x 2 = 20 | 10 |
| 4 | Do research about Android push mechanism | 8 x 1 = 8 | 5 |
| 5 | Do research on Android API for interacting with MySQL database. | 8 x 1 = 8 | 5 |
| 6 | Study the GUI design of popular & similar news apps. | 8 x 1 = 8 | 5 |
| 7 | Design the architecture. | 3 x 1 = 3 | 1 |
| 8 | Design the database for “News” and “Events” feature | 4 x 1 = 4 | 2 |
| 9 | Design the main menu | 7 x 1 = 7 | 3 |
| 10 | Design the GUI for “News” feature | 4 x 1 = 4 | 1 |
| 11 | Implement the “News” feature | 7 x 1 = 7 | 3 |
| 12 | Design the calendar interface for “Events” feature | 4 x 1 = 4 | 1 |
| 13 | Implement the “Events” feature | 7 x 1 = 7 | 3 |
| 14 | Design the Notification board interface | 4 x 1 = 4 | 1 |
| 15 | Implement the Notification mechanism with upcoming events | 7 x 1 = 7 | 3 |
| 16 | Test the Notification mechanism | 4 x 1 = 4 | 1 |
| 17 | Functional testing: “News” feature, “Events” feature | 4 x 1 = 4 | 1 |
| 18 | Expand the database for “Courses” feature | 6 x 1 = 6 | 2 |
| 19 | Design the GUI for “Courses” feature | 4 x 1 = 4 | 1 |
| 20 | Implement the “Courses” feature | 10 x 1 = 10 | 5 |
| 21 | Apply the Notification mechanism with course announcements | 7 x 1 = 7 | 3 |
| 22 | Retest the Notification mechanism | 4 x 1 = 4 | 1 |
| 23 | Functional testing: “Courses” feature | 4 x 1 = 4 | 1 |
| 24 | Test the whole application | 7 x 1 = 7 | 2 |
|  | **Total** | 147 person-hour | 62 days |

# **Risk Plan**

## **Potential Risks**

|  |  |
| --- | --- |
| Risk type | Possible Risks |
| Technology | * Machines which are used in developing the system is slow or crashed. * The Android emulator is slow or not satisfied the needs of the team. * The application components contain defects which limits their functionality. * The database system sometimes cannot process the expected number of sessions per second. |
| People | * Key members are ill or busy at critical time. * Some members are busy with other projects. * Team members don’t have enough knowledge and experiences in mobile platform and Android programming. * Team members meet some difficulties in designing the application GUI. |
| Estimation | The duration and effort for each task was underestimated. |

## **Risk Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| Risk | Prob. | Impact | Actions |
| Machines which are used in developing the system is slow or crashed. | 1 | 5 | Perform some tweak and upgrade to the system software / hardware. |
| The Android emulator is slow or not satisfied the needs of the team. | 4 | 2 | Reduce testing on emulator, increase testing on real devices instead. |
| Software components contain defects which limits their functionality. | 2 | 3 | Research for solution or find a workaround. |
| The database system sometimes cannot process the expected number of sessions per second. | 3 | 4 | Implement some technique to limit the rate.  Perform upgrade to the system. |
| Key members are ill or busy at critical time. | 3 | 4 | Modify the schedule and task assigned to other member. |
| Some members are busy with other projects | 4 | 4 | Reorganize the schedule to fit the staff’s availability |
| Team members don’t have enough knowledge and experiences in mobile platform and Android programming. | 4 | 4 | Modify the schedule to provide more time for researching & learning |
| Team members meet some difficulties in designing the application GUI. | 3 | 3 | Modify the schedule to provide more time for analyzing other similar apps |
| Duration and effort for each task is underestimated. | 2 | 4 | Reorganize the schedule.  Alert the stakeholders to the possibility of delays.  Renegotiate deadlines |