Social Media App

# Revision 1

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# 1 INTRODUCTION

## Purpose

The purpose of this document is to describe the specifications for a social media application intended for Android mobile devices.

The authors intend this document to reach an audience of the software developers of this application and the review of the client.

## Scope

The software system that this document will describe is an Android application that will allow users to share information with other users.

## Definitions, Acronyms, and Abbreviations

ADT Android Development Toolset

IDE Integrated Development Environment

JDK Java Development Kit

JRE Java Runtime Environment

SDK Tools Software Development Kit Tools

IntelliJ IDEA A Java IDE released under an Apache license.

Android Studio The official Google Android IDE based upon IntelliJ.

Gradle The automated build system utilized by Android Studio.

Activity An Android object that creates a window for the user.

Intent An Android object that describes data and an action to perform on that data.

SMS Short message service, a text messaging service.

Gingerbread The name for Android version 2.3, released February 2011.

Conversation A group of messages arranged in sent chronological order.

## References

"Android Developers." Google Inc., 1 Jan. 2015. Web. 12 Feb. 2015. <http://developer.Android.com/index.html>.

IEEE-SA Standards Board. *IEEE Std. 830-1998: IEEE Recommended Practice for Software Requirements Specifications*. New York: The Institute of Electrical and Electronics Engineers, 1998.

# 2 OVERVIEW

## 2.1 Product Perspective

One of the services that cell phone owners have the option to pay their cell phone carriers for is the ability to send and receive SMS messages. Smartphone users additionally look for an application that will manage their SMS messages.

## 2.2 Product Functions

### 2.2.1 The main activity

From the main activity, the user should be able to view the total list of previous conversations that have previously occurred. From this activity, the user can select which conversation to view, or to start a new conversation.

### 2.2.2 The options menu

From any activity, the user should have the ability to access the options menu. The options menu must allow the user to enable or disable notifications.

### 2.2.3 The notification builder

When the application detects that it has received a new message, it needs to notify the user by creating a new notification unless the user has specified not to create notifications. The notification should include the origin of the message and a short preview of the message’s contents.

### 2.2.4 The new conversation activity

The user can specify another application user to contact with an SMS message, draft a message from standard input, and send that message by SMS.

### 2.2.4 The chatting activity

In this activity, users can view all previous messages sent and received to a single other user and choose to draft and send another message to that user.

## 2.3 User Interfaces

This product will provide to the application’s users an interface composed from Android activities to view previously received SMS messages and to send them to other users.

### 2.3.1 Hardware Interfaces

This application targets any device that is capable of running the Gingerbread version of Android, which is 99.5% of all Android devices according to Google.

### 2.3.2 Software Interfaces

The application must be capable of receiving input from the standard Android input, the touch screen virtual keyboard, and must be capable of displaying output to the standard output, the device’s screen.

#### 2.3.2.1 The Contacts Repository

It is desirable that the application be able to access, update, and delete contact information in the standard Android contacts repository, the contacts provider. This repository contains a list of contacts, which have names and phone numbers, among other possible data fields.

### 2.3.3 Communication Interfaces

The application must be capable of sending and receiving SMS messages.

## 2.4 Constraints

This application is limited to the capabilities of the Android operating system and the devices that are capable of running Android. The application will support portrait mode only, with landscape mode as a desired feature in future releases.

# 3 ENVIRONMENT

The application must run on Android devices using version 2.3, Gingerbread, or later versions.

# 4 ARCHITECTURE

## 4.1 Module 1

The application will consist of one module. The product functions described above will not easily separate into different modules developed independently of the others. Each of these functions will instead be individual classes.

### 4.1.1 Table 1: Classification of Functional Requirements

|  |  |  |
| --- | --- | --- |
| Overview Section Number | Functionality | Type |
| 2.2.1 | The main activity | First release |
| 2.2.2 | The options menu | First release |
| 2.2.3 | The notification builder | First release |
| 2.2.4 | The new conversation activity | First release |
| 2.2.5 | The chatting activity | First release |
| 2.3.2.1 | The Contacts Repository | Second release |

### 4.1.2 Interactions between classes

The main activity is the starting activity when the application first loads. It must be possible to access the main activity from any of the other activities. It must also be possible to access the options menu from any activity. The main application activity, or a helper class to the main activity, must be able to detect incoming messages and build notifications. It must be possible to access the new conversation activity from any other activity.

# 5 FEATURES

### 5.1 Send messages – Messages will be sent via SMS or MMS

### 5.1.1 Regular message – A regular one-to-one SMS message

5.1.2 Scheduled message – Will send a message at a scheduled time

5.1.3 Reminder message – Send a message to yourself at a scheduled time

5.1.4 Group message – Send a message to multiple contacts

### 5.2 Profile – Contains information about yourself for others to see

### 5.2.1 Contact info – Send your info with a message

5.2.2 Profile – Update your profile picture, status, and personal info

5.3 Non-core features for the application

5.3.1 MMS – Messages containing pictures, gifs, videos, audio

5.3.2 Send text selection via message – Select text and send directly via SMS

5.3.3 Send multi-media selection via MMS – Select multi-media and send directly

# 6 INTERFACES

### 6.1 Graphical User Interface

The interface will consist of four different screens; Main, message, options, and contacts screen. See appendix A for examples of mockups of each screen.

### 6.1.1 Main Screen

Will show list of previous sent messages in a chronological order. Messages that haven’t been read yet should be bolded. In order to get to the message screen of that contact simply click on the contact/message. Three other buttons will be present on screen; Options (takes you to options), Contacts (takes you to list of your contacts), and new message which gives you the option to create a new message.

6.1.2 Options Screen

Ability to change several options within the application. Such as disabling notifications and text size.

### 6.1.3 Message Screen

View of your past messages with one contact and ability to write messages to them.

### 6.1.4 Contacts Screen

List of contacts with the ability to add new contacts.

### 6.3 Programmer Interface

We intend to use gradle’s build system.

### 6.4 Data Interfaces

The network interface will work with connection to a cellular network to send and receive messages of SMS and MMS type.

# 7 INSTALLATION

The final product will be in the form of an .apk file, which the user can then download to their android device. It is desirable but not a requirement that the application should be available in the Google Play store. It is required that the user be able to directly download the .apk file to their device and install it as an unknown app. This process is also known as “side-loading.”

# 8 CONSTRAINTS

### 8.1 Design and Implementation Constraints

Must be designed to fit on a android smartphone interface.

### 8.2 Time and Cost Constraints

With limited time there may be some features that will be skipped in implementation such as MMS in order to get the core functionality of the application working.

# 

# Settings.jpgMockup1.jpg9 APPENDIX A – MOCKUPS MessageScreen.jpgcontacts.jpg