

# Software Requirement Specification

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# Introduction

## Purpose

The purpose of this project is to provide an application very similar to the application on our smart phone applications.

## Scope

The application will do most things the address book on most smart phones do. Functionalities include managing addresses, managing SMSs, managing calls. The managements will interact with each other for user conveniences.

# Product Perspective

## System Interfaces

This application is not a part of any systems, but may be one of the requirements for a phone when this application becomes a part of it.

## User Interfaces

The user will be able to access to addresses by a list of addresses. The user can edit, send a SMS, or Call some one on the address page they're accessing. Users can also access SMS and Call histories sorted by time. Users can access addresses from their SMS and Call histories.

## Hardware Interfaces

For this project, the application will be for the computers with the ability to run Java Runtime Environment.

## Software Interfaces

Application uses java as main language, so it will use some of java's key libraries. Used 'gson' library from google to read and write json files.

## Communication Interfaces

This application will not have the need to communicate with the online network nor the local network.

## Site Adaptation Requirements

May need to have Java Runtime Environment

# Product Functions

The functions application will perform will not be so great, but will help people manage their addresses. The application will let people:

- Save and edit addresses to a file.
- Sort the addresses by name.
- Sending SMSs and calling people by phone number.
- Have access to call or SMS when they're viewing the addresses.

## User Characteristics

Due to this application includes most of functions in any smartphones or 2G phones, those who have used cellphones can use this applications without any problem.

## Limitations

- This application is only able to run in java environment.
- Compare to real address book applications in smartphones, this application only shows necessary information on the screen.
- Since this application is only able to run in java environment, how information shows on the screen might not better than real applications.

## Assumptions and Dependencies

This application is only able to run in computers with Java Runtime Environment.

## Specific Requirements

- Application must include three main parts, which are telephone directory, SMS history and Call history.
- Users are able to access each directory by inputting numbers stated at each directory.
- Also, "Quit" directory is also needed in order to go back to prior menu.
- Users should be able to create, edit or delete any information in each directory.

## External Requirements

Due to insufficiency of testing environment, external requirements will not deal with source of input or destination of output; valid range, accuracy, and/or tolerance; units of measure; timing; data formats.

- i) User Interface

- Description of purpose: To provide an intuitive interface and functions of address book to those using this application.
  - Screen formats/organization: This application is based on Java Runtime Environment; the application will run on Console windows.
  - Data formats: Data types only include strings and integers, which are names, phone numbers, emails, addresses, memos and the number of directories.
  - Command formats: Commands will be shown on the screen including minimum information.
- ii) Hardware Interface
- For this project, the application will be for the computers with the ability to run Java Runtime Environment.
- iii) Communication Interface
- This application does not need any internet or network to run.
  - Information will be save on its on “network” while running, and will be deleted after the program shut down.

## Functions

- For inputs, only data types of string and integers are allowed.
- For abnormal situations, including overflow, communication facilities, error handling and recovery, the program will catch the error itself and will be shut down if necessary.
- Relationship of outputs to inputs: By inputting numbers in the main menu, users are allowed to enter subsections; users input necessary information by inputting some strings.

## Usability Requirements

Users can access to address, SMS and Call box. Through inputting information, users can create new address, or edit and delete existent address. For SMS and Call box, users can confirm received or outgoing messages and calls, also access to addresses if required.

## Performance Requirements

This application only deals with fixed information, which are name, address, email, phone number and memo; SMS box and Call history box. This program does not have any dynamic numerical requirements

## Verification

The main purpose of this project is to provide an application similar to the one on our smart phone applications. Though its running environment is only limited in Java Runtime and it only includes few functions, while doing this project, we strived for

including most of necessary functions to make the best similar to real smartphone application.