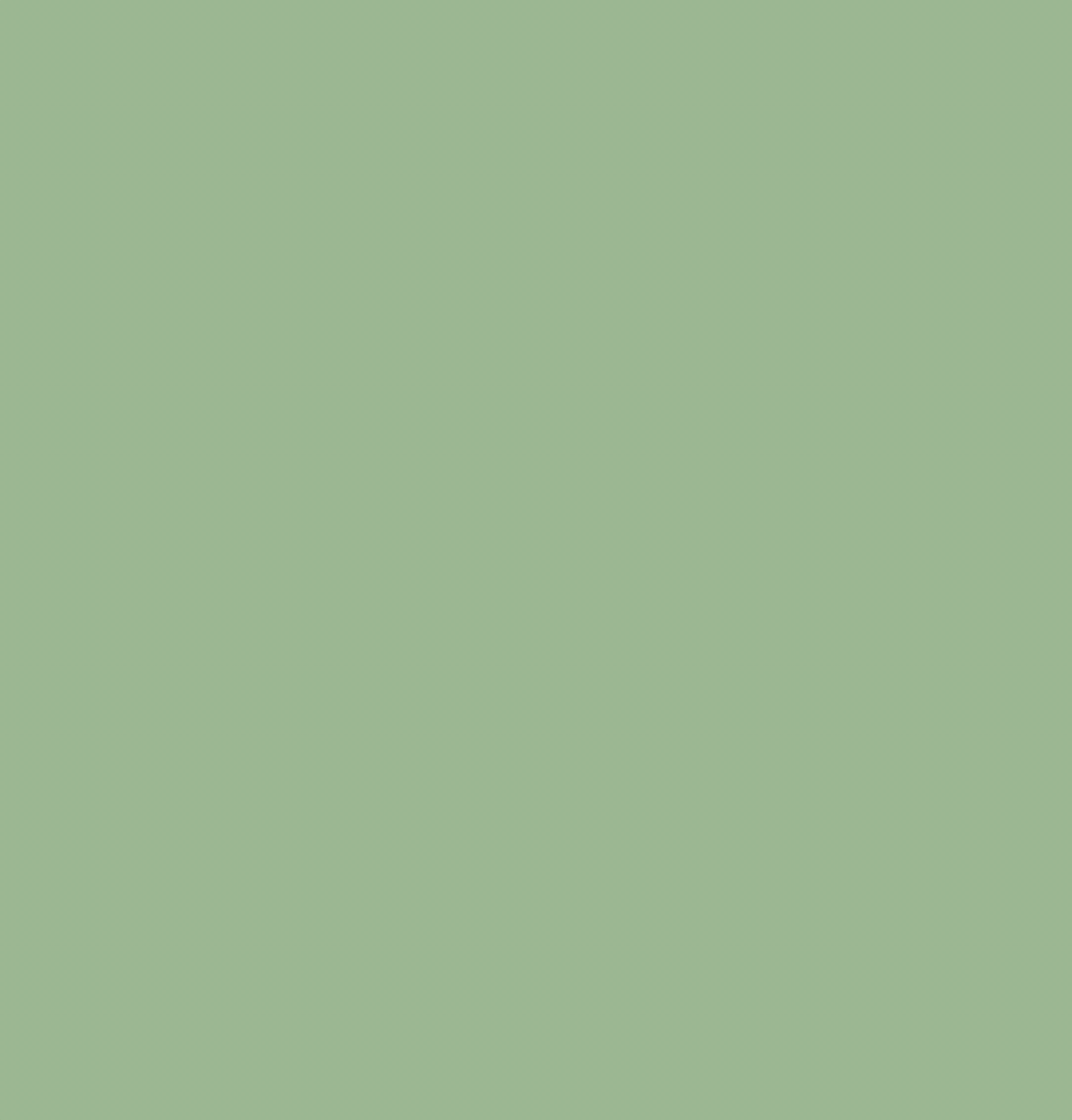
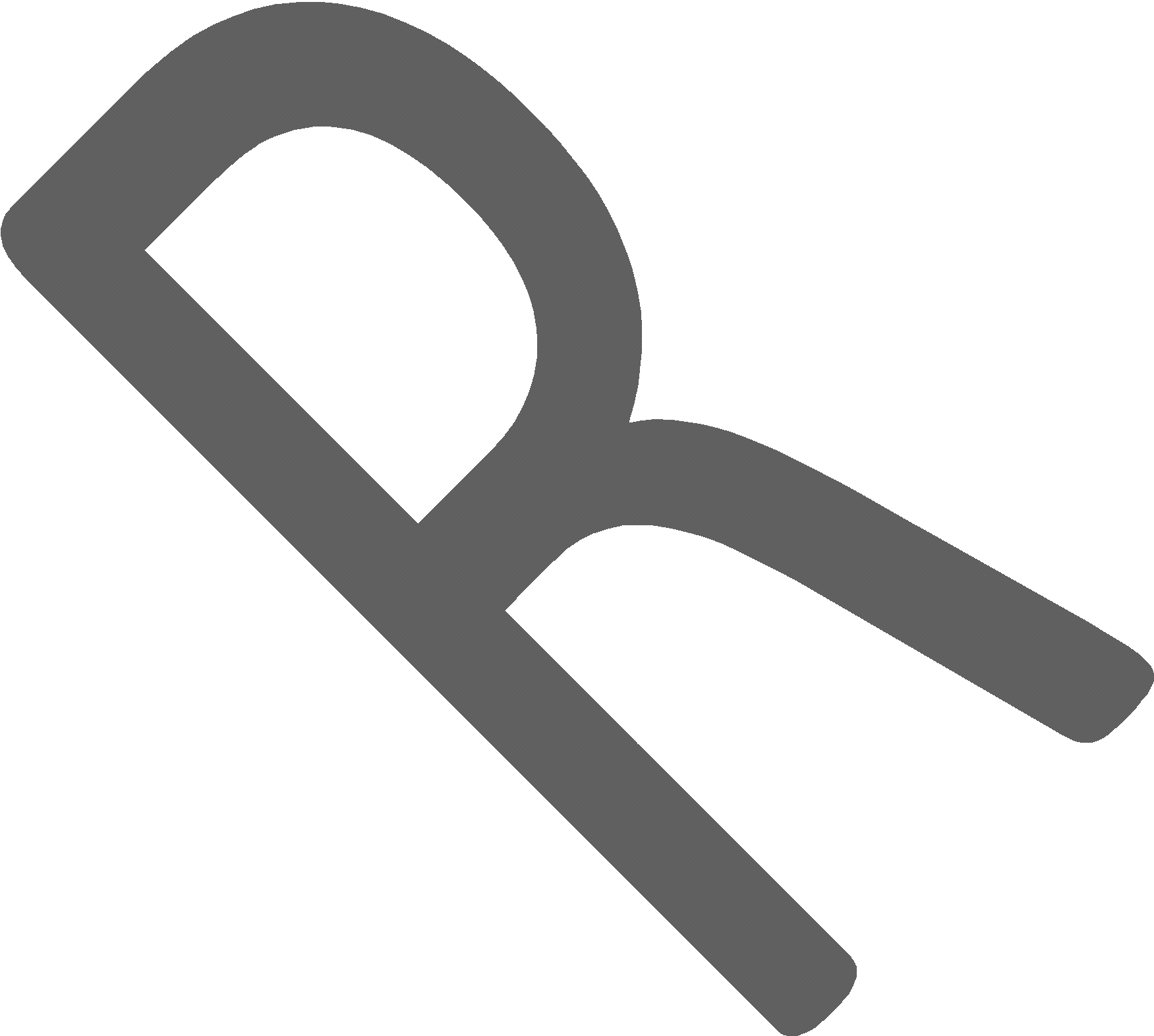
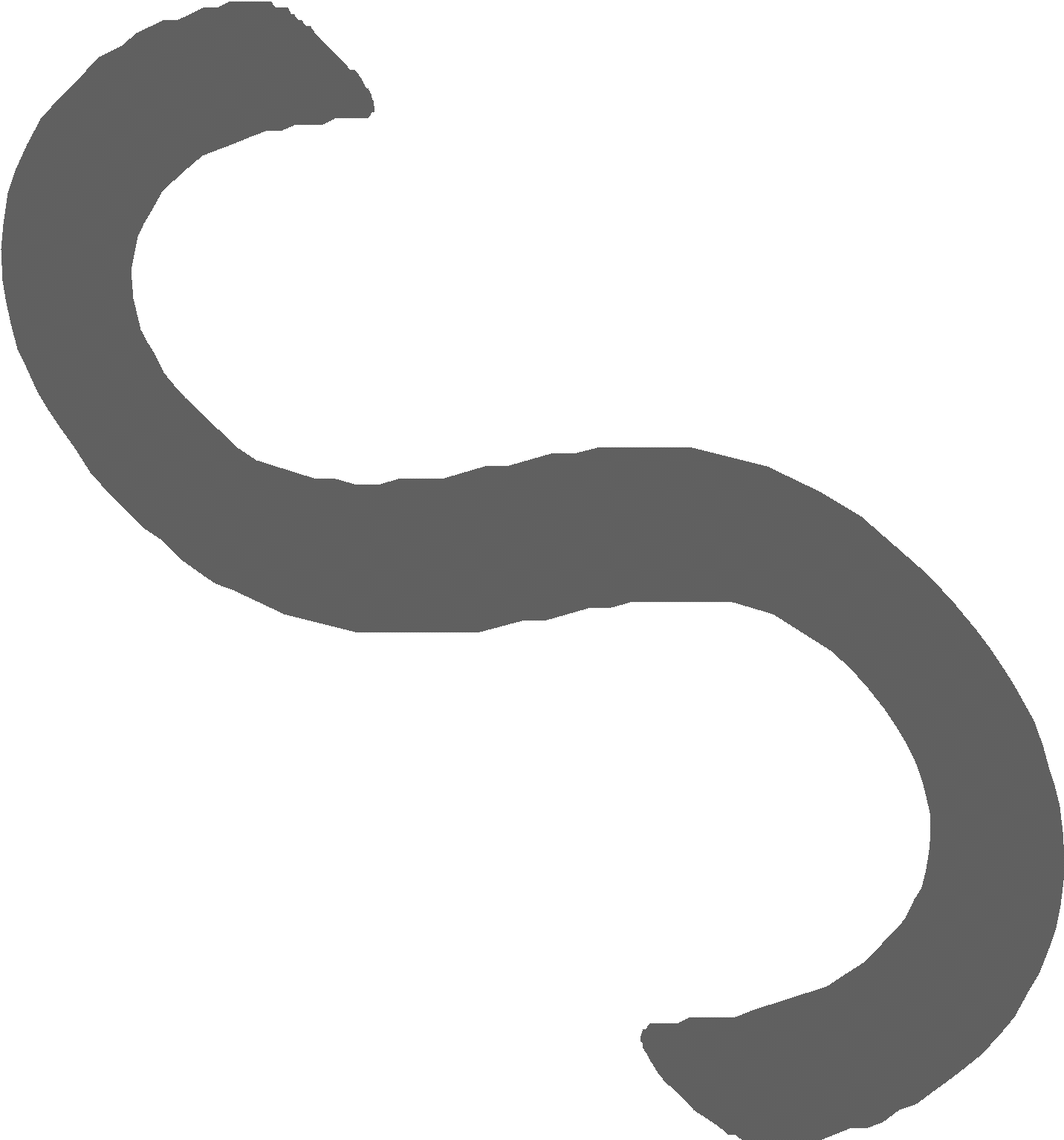
Richard Singh

846501401

**Programming Principles**

Project 2 : Project Charlie ~ Part 1 SRS



Shape

Description automatically generated

Software Requirement

Specification

Visitor

Registration

Application

**Prepared By: Richard Singh**

**Creative IT Solutions LTD**

**18th February 2023**

Table of Contents

[1.Introduction 1](#_Toc127875866)

[1.1 Purpose 1](#_Toc127875867)

[1.2 Document Conventions 1](#_Toc127875868)

[1.3 Intended Audience and Reading Suggestions 1](#_Toc127875869)

[1.4 Product Scope 2](#_Toc127875870)

[1.5 Definitions and Acronyms 2](#_Toc127875871)

[2.Overall Description 3](#_Toc127875872)

[2.1 Product Perspective 3](#_Toc127875873)

[2.2 Product Features 3](#_Toc127875874)

[2.3 User Classes and Characteristics 4](#_Toc127875875)

[2.4 Operating Environment 4](#_Toc127875876)

[2.5 Design and Implementation Constraints 4](#_Toc127875877)

[2.6 User Documentation 5](#_Toc127875878)

[3.Design 5](#_Toc127875879)

[3.1 User Friendly 5](#_Toc127875880)

[3.2 Clear Labels 5](#_Toc127875881)

[3.3 Meaningful Names 5](#_Toc127875882)

[3.4 Date of Registration 6](#_Toc127875883)

[3.5 Drop Box 6](#_Toc127875884)

[3.6 Fields not Empty 6](#_Toc127875885)

[3.7 Cleared Fields 6](#_Toc127875886)

[3.8 Sketch 6](#_Toc127875887)

[3.9 Alignment 6](#_Toc127875888)

[4. Technical Specification 7](#_Toc127875889)

[4.1 Meeting Aim Button 7](#_Toc127875890)

[4.2 Combo Box 7](#_Toc127875891)

[4.3 Delete Information 7](#_Toc127875892)

[4.4 Sign In 7](#_Toc127875893)

[5. Functional Requirements 8](#_Toc127875894)

[5.1 User Registration 8](#_Toc127875895)

[5.2 Visitor Check-In 8](#_Toc127875896)

[5.3 System Features 8](#_Toc127875897)

# Introduction

## 1.1 Purpose

Creative IT Solutions is tasked with developing a basic desktop program to serve as a visitor sign-in system for company reception desks. The program will allow visitors to enter information about themselves along with the purpose of their visit, in addition to what time the agenda is being conducted and with whom.

## 1.2 Document Conventions

The application must contain a dropdown menu for selecting who the client is here to conduct their meeting with, to which the empty field should then display said name.

The application contains a customised button that displays another small window with options such as "Meeting", "Site Visit", “Sales Appointment” and/or "Student Interview" to which the meeting aim button then displays the purpose of their visit and if the user cancels, the main form should not display any option(s).

All fields in the sign-in form are mandatory and are to be validated, including the mobile number and email address. Once all the required fields are completed, the meeting details will be added to the "In-Progress Meetings" list box. With use of a custom method, once all the information has been recorded, the fields will be cleared ready for the next visitor to sign in as needed.

The receptionist must also be able to delete meetings from the list by selecting an item and pressing the DEL key on the keyboard.

The controls should be properly aligned and placed according to the design provided. For instance, the labels and input fields should be aligned correctly and consistently spaced, and the buttons and list items should be properly positioned on the screen.

## Intended Audience and Reading Suggestions

Intended Audience

**Developer(s)/Programmer(s):** This document is in primary interest to developers/programmers who is responsible for building and testing the visitor registration application system. They understand the technical requirements and specifications outlined by the client to ensure that the application is developed in accordance to those guidelines.

**Project Manager(s):** Project managers will be interested in the high-level overview of the system requirements, time constraints, and final product. They will also need to know how the system fits into the larger project and what dependencies exist.

**Users:** The receptionists who will be using the visitor registration system will need to know how to operate the application with confidence. They will be interested in understanding the user interface, features, and the functionality of the system as a whole.

**Tester(s):** Testers will need to know the system requirements and expected behavior to develop test cases and performance validation and verification.

**Documentation Writer(s):** Documentation writers will need to understand the system requirements to create user manuals, training materials, and various other supporting documentation.

Reading Suggestions

This Software Requirement Specification is formulated into several sections, including:

* Introduction: This section will provide an overview of the application and its purpose.
* Functional Requirements: This section will outline the system's functional requirements, including inputs, processes, and outputs.
* Non-functional Requirements: This section will describe the system's non-functional requirements, such as performance and reliability.
* Use Cases: This section will describe the system's use cases, including how users will interact with the system.
* System Architecture: This section will describe the system's architecture, including hardware specification and software requirements.
* Constraints: This section will outline any constraints that the system must adhere to.

To read the SRS, it is recommended one start with the overview sections (Introduction, Overall Description, Design, Technical Specifications and Functional Requirements) to get a noteworthy understanding of the system. From that point onwards, readers should proceed to the sections most pertinent to their role (e.g., receptionists should focus on the “use cases” and “user interface” sections, while developers should focus on the architecture of said system in addition to technical requirements sections). Finally, readers should review the glossary to ensure they understand any technical terms or acronyms used within the documentation of SRS.

## 1.4 Product Scope

This application is best for organisations that have regular visitors. Using this product can improve efficiency of the check-in process by enabling visitors to input their personal details and meeting information thus giving receptionists time to do more important tasks and track the status of current and upcoming meetings. The system can also help to improve the visitor experience, by streamlining the check-in process and reducing wait times.

The application can also be used to indicate how many visitors are onsite for such emergencies like during a fire or earthquakes thus ensuring everyone is considered. Using this system can help organizations avoid being held accountable for any negligence related to visitor registration, by providing a secure and efficient way of collecting and managing visitor information.

Overall, this product is an ideal fit for any organisation that values security, efficiency, and a positive visitor experience.

## 1.5 Definitions and Acronyms

|  |  |
| --- | --- |
| **Abbreviation** | **Definition** |
| SRS | Software Requirement Specification |
| DEL | Delete key – found above the arrow buttons |
| IT | Information Technology |
| DFD | Data Flow Diagram – showcasing the process of signing in |
| GB | Giga Byte – measurement of size in relation to computer hardware |
| CPU | Central Processing Unit |
| HDD | Hard Disk Drive |
| SSD | Solid-State Drive |
| RAM | Random Access Memory |
| PC | Personal Computer (desktop PC) |
| OS | Operating System |

# Overall Description

## 2.1 Product Perspective

This visitor registration system is a new, self-contained product that has been developed to replace the existing paper-based visitor registration process. The system is intended to be used by receptionists at the organisations front desks to register visitors and record their meeting details.

The system is not part of or dependent on a larger product family, however it does have dependencies on the establishments existing IT infrastructure. To be more specific, the system will need to integrate with the establishments staff and calendaring systems.

A diagram that shows the major components of the overall system might include the visitor registration system towards the left of the application, with interfaces to the company's email and calendaring systems in the centre and on the right to display all current and future meetings to be conducted on given day. There could also be an interface to a database or data storage system to store visitor information and meeting details. Furthermore, a second form to appear when “Meeting Aim” button is clicked on so the client can choose the agenda of their visit.

Graphical user interface, application

Description automatically generated Graphical user interface, application

Description automatically generated

## 2.2 Product Features

A more detailed outline will be provided in Section 3 of the SRS. Some major functions are:

* Register a visitor by entering their personal details
* Select the purpose of the visitor's meeting from a dropdown list
* Record the date and time of the meeting
* Display a list of all in-progress meetings
* Allow receptionist to delete a meeting from the in-progress meetings list

Diagram

Description automatically generated

## 2.3 User Classes and Characteristics

The users this product is ideal for but not limited to are places with regular visitors such as hospitals, receptionists, and general practitioners to name a few.

**Visitors** - This user class includes all individuals who will be visiting an establishment and registering themselves as visitors through the sign-in system. These users are likely to have varying levels of technical expertise and may need some guidance in using the system. They will be solely responsible for entering their personal details, selecting the purpose of their visit, and providing their meeting details.

**Receptionists** - This user class includes the staff responsible for managing the visitor registration system. Receptionists will be most likely to be experienced in using technology and should be comfortable with using the system. Mandatory training will ensure receptionist can assist new and returning visitors should any trouble occur. They will be responsible for registering visitors, managing the in-progress meetings list, and deleting meetings as needed.

**Hosts** - This user class includes the individuals who will be meeting with the registered visitors. Hosts will receive meeting invitations or notifications that their client has arrived and waiting. Hosts will then be responsible for attending the meeting at the specified time and date.

## 2.4 Operating Environment

Hardware Specifications

Minimum hardware requirements for operating this visitor registrations application.

* **CPU**: 2 GB
* **HDD | SSD**: 2 GB
* **RAM**: 2 GB (4 GB Recommended)
* **Devices:** 
  + Tablets
  + PC
  + Laptops

Software Specifications

Application will work on Windows 10 32 Bit and 64 Bit however we do recommend Windows 11 as Win10 is being slowly phased out. App isn’t limited to just Windows OS, it can be used on an Android based OS, Ubuntu OS, Linux, and MAC.

Connection to the internet through Wi-Fi is also needed. This enables hosts of the meeting to know their client has arrived, in addition to records being kept on the database. Furthermore, the application will need regular updates for security purposes, and this cannot be achieved if the no connection to the internet is available.

## 2.5 Design and Implementation Constraints

**Corporate Policies:** developers need to take into consideration and adhere to certain company policies and/or regulations. For example, security standards and how one’s personal information is kept only between the parties involved and no-one else.

**Device Hardware:** the system may have hardware limitations that need to be considered especially if the organisation isn’t looking to upgrade their hardware anytime soon. Hardware components to take into account are the processing unit, memory/storage capacity. Having old hardware could cause the application to fail thus causing trust issues between client and organisation and in extension the application provider.

**Programming standards**: developers most likely will need to adhere to certain programming standards set by respectable their countries IT standards committee. These could vary from code style, documentation, and testing requirements. If the customer's organisation will be responsible for maintaining the delivered software, the developers need to ensure that the code is written in a way that is easy to maintain and understand.

## 2.6 User Documentation

**User guides:** A user guide outlines all the steps necessary to utilise a piece of software. It might contain instructions on how to carry out actions, such deleting a meeting or registering a visitor. The user guide may be supplied in paper or electronic form.

**Online assistance:** The software has a digital help system called online help. It gives instructions on how to use particular program features and could have connections to relevant articles.

**Tutorials:** Tutorials provide users with a step-by-step introduction to the software and may include activities to make them more comfortable using it. Video or electronic delivery options are available for tutorials.

# Design

## 3.1 User Friendly

The approach of having a user-friendly product or service is designed with the user's needs and experience in mind, making it easier and more enjoyable to use.

The registration app has a simple and intuitive user interface that is easy to use for people of all ages and technological backgrounds. The design is consistent across all of the devices the application is available on making it easy to navigate from device to device.

All the fields on this visitor registration app is designed to be user-friendly, making it easy for visitors to check-in and for hosts to manage their appointments.

## 3.2 Clear Labels

The labels used within the forms are clearly labeled and state exactly what is needed for that particular field such as first name, email, mobile, who they are meeting with and their agenda. No jargons used, just plain simple labels and those who have English as their second or third language can understand what they need to input that particular section.

## Meaningful Names

Each field that needs data to be entered into has a unique name. This is done as it looks professional but more importantly when a different programmer continues on from previous programmer, they can relate the name given to what the purpose of that field is for.

For instance, this form has four text boxes and two buttons and each of the fields are used for different purposes. If all the textboxes were called textbox1, textbox2 and so on, one would easily forget what field they are working on. Recommend labelling the text boxes to its corresponding purpose such as visitorsFirstNameTB and visitorsLastNameTB.

## Date of Registration

Date of appointment/registration uses calendar format so that one can pick appropriate date of their visit as required. The format is also to follow the dating format in relation to how everyone writes the date according to their location. For example, in New Zealand its DD/MM/YYYY.

## Drop Box

The drop box/combo box is to be loaded with names to staff members that conduct meetings with visitors. The names of these staff members should include both their first and last names. If more than one staff member happens to have the same name, then their middle name is to be used.

## Fields not Empty

We want every field to be filled in by the visitors/users when filling in the registry. By making every field mandatory, we can ensure that every details has been gathered. With the use of message boxes “messageBox.Show();” , visitors can be alerted when they have left certain fields blank.

## Cleared Fields

Once the visitors/users has filled in all the fields as needed, they proceed onto pressing the “Sign In” button. Once this occurs the text boxes that takes in all the input should be cleared and ready for the next visitor. This will also ensure that there are no double-ups of visitors on site.

## Sketch

A rough sketch of both forms to have an idea of what each form should look like

Form 1: Form 2:

A whiteboard with writing on it

Description automatically generated with medium confidence A picture containing text, whiteboard

Description automatically generated

## Alignment

Main Application “Form 1”

The application is to be split is three vertical sections as per sketch. The left and middle sections should be of equal size in width, whereas the right section should be slightly bigger as quite a bit of information is getting stored into the ListBox. The height of middle and left section is to three-quarters of the size of the right section so that the “Sign In” button can go underneath it.

The labels are to be bold with the text box directly under it. Every text box should be of equal size in every section and of the same distance (left, right, top and bottom) from the group border. The “Sign In” button is to take up the empty space under the left and middle section, but the height is not to exceed that of the right section.

Form 2

The available options are to be in 2x2 order. The options in the bottom row is to be aligned with the options available above it. These options are to be placed in the center of the groupbox.

The “OK” and “Cancel” buttons are identical in both height and width sized buttons situated towards the bottom right of the form.

# Technical Specification

## 4.1 Meeting Aim Button

Once the “Meeting Aim” button is clicked on, a secondary form should appear with four given options. Once the user click on a given option, the “Meeting Aim” button should change to the option that the visitor has chosen from the secondary window. Additionally, if the user doesn’t choose an option but chooses to cancel from the option box, the “Meeting Aim” should remain as it is.

## 4.2 Combo Box

When the user clicks on the arrow for the drop downbox / combo box, they are able to choose from given list of staff members for whom they are having a meeting with. The box should remain empty until empty until an option has been chosen from the list and at that point the empty box should have the corresponding name showing.

## Delete Information

Once the visitor has concluded their meeting, the receptionist should be able to select the visitors name and details and delete it from the ListBox. The displayed information be done via selecting every detail in relation to the visitor or just one detail at a time however, this must be accomplished by pressing down the DELETE key from the keyboard.

## 4.4 Sign In

Once the “Sign In” button is clicked, every information that had to entered in the field is to be displayed/recorded on the ListBox. Using a display box stating that particular field is required will ensure all required fields are filled and then recorded.

# Functional Requirements

## 5.1 User Registration

The visitor’s registration application must allow users/visitors to register being on-site by inputting their personal information, which includes:

* First and last name (required)
* Mobile number (required)
* Email address(required)
* Date and time of the meeting (required)
* Who the meeting is with (required)
* Meeting Agenda (required)

Every field needs to be a mandatory field in addition to mobile number and email address needing respective validation. By clicking on “meeting aim” button, it should open secondary form as shown in sketch diagram. The meeting aim button also displays the same text as the option that the user has selected from the secondary window. Furthermore, upon clicking on the click of “Cancel” button, no option will be selected and the “meeting aim” should remain as it is.

Once all information from the user has been gathered, these information should then be added to the ListBox. A custom method is to be coded so that after the information has been added to the ListBox, it clears all the fields within the form. The receptionist needs to be able to delete items from the ListBox once the visitor has left the premises.

## 5.2 Visitor Check-In

The very purpose of this application is to allow visitors to check in at the given facility by providing their personal information, their reasoning of being on-site, whom they are having a meeting with along with date and time.

## System Features

The system/application must allow the receptionist and/or hosts to read, delete, and record data as required. Apart from knowing that a visitor has arrived on site for a meeting, in extension this purpose is for visitors who accidentally make a mistake whilst filling in the fields during the registration process.