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# 1. Introduction

## 1.1 Purpose

This document aims to provide a detailed representation of the software described in the RASD document. it goes deeper into details and shows an overview of the architecture of the CLup application.

It aids in the critical analysis of the problem and the proposed solution by creating an overall guidance for the programmers who will develop the application.

For this scope in this document, it is possible to find all the components of the system with the interactions among them, their interfaces, the runtime behavior and the deployment. The design characteristics are provided together with the design patterns adopted and some algorithms which highlight the more critical aspects.

This document also gives a description of how the implementation, integration and testing plan will be like.

## 1.2 Scope

## 1.3 Definitions, Acronyms, Abbreviations

### 1.3.1 Definitions

* **Custome**r: who signs in the application with the purpose of doing shopping.
* **Store Manager**: who adds a store in the application and has the purpose of organizing it according to the new rules introduced to contrast the coronavirus pandemic.
* **User:** who signs in the application and uses the available services for him/her purposes. The user can be a customer or a store manager.
* **Demographic**: particular sector of population (children, seniors, adults, …).
* **Ticket:** the number received which corresponds to the position in the queue.
* **Totem**: multimedia structure which allows people who cannot use the application to take a ticket.
* **QR Scanner**: digital structure used by the customers to scan their tickets when they enter/exit the stores in order to make the shop managers monitor the affluence of people in their shop.
* **QR Code**: bidimensional matrix composed of black modules put in a square schema used to memorize information about a ticket.
* **Reservation**: is a general term used to indicate either a taken ticket or a booked visit.
* **Book a visit:** refers to the option for the user to book a visit in a selected shop for the following days.
* **Take a ticket:** refers to the option for the customer to have a position in the queue of a shop in the current day.
* **System**: it is the software that is the objective of the document.

### Acronyms

* **RASD:** Requirement Analysis and Specification Document
* **DD:** Design Document
* **GPS:** Global Positioning System
* **UI:** User Interface
* **MVC:** Model View Controller
* **API:** Application Programming Interface
* **HTTP:** Hypertext Transfer Protocol
* **TLS:** Transport Layer Security
* **JSON:** JavaScript Object Notation
* **REST:** Representational State Transfer
* **RDB**: Relational Database
* **DBMS:** Database Management System
* **RDBMS:** Relational DBMS

### Abbreviations

* **Gn:** n-thgoal
* **Rn:** n-th requirement

## Revision History

## 1.5 Reference Documents

* available slides on Beep
* R&DD Assignment A. Y. 2020-2021

## Document Structure