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Requirement Analysis and Specification Document

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1 Introduction

1.1 Purpose

1.1.1 Description of the Proposed System

The project CLup is a line spot reservation system that is planned to be used by managers and customers of many local vendors and chains. The system aims to provide assistance to cope with the customer load for managers and to help customers access to products in a safe and controlled manner.

1.1.2 Goals

1.2 Scope

1.2.1 Targeted Users

1.2.2 Relevant Phenomena

1.3 Definitions, Acronyms, Abbreviations

1.3.1 Definitions

- *Location*: the physical location of the business that operates the line reservation system
- *Manager*: the user in charge of executive action within the location
- *Customer*: the user with the goal of making a visit to the location
- *Visit Time*: the time interval in which a customer performs a visit to the location
- *Line Number*: A number that indicates the ordering of a specific customer in the line
- *Time Slot*: Specific intervals of time that are determined by the opening hours and average visit time per customer.
- *Partner Store*: A different location that is included in the same beneficiary chain of command (such as another member of the franchise or store chain) or in a mutual agreement with the specific location
- *Product*: Any item, items, service or services demanded by the customer, and provided by the location to the customer.

1.3.2 Acronyms

- **RASD**: Requirement Analysis and Specification Document
- **QR Code**: Quick Response Code

1.3.3 Abbreviations

- G_n : n^{th} goal
- D_n : n^{th} domain assumption
- R_n : n^{th} functional requirement

1.4 Revision history

1.5 Reference Documents

- **Specification Document: R&DD Assignment AY 2020-2021**
- **IEEE Std 830-1998: IEEE Recommended Practice for Software Requirements Specifications**
- **ISO/IEC 18004:2015 QR Code bar code symbology specification**

1.6 Document Structure

2 Overall Description

2.1 Product Perspective

2.2 Product functions

2.3 User characteristics

2.4 Assumptions,dependencies and constraints

3 Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

3.1.2 Hardware Interfaces

3.1.3 Software Interfaces

3.1.4 Communication Interfaces

3.2 Functional Requirements

3.3 Performance Requirements

3.4 Design Constraints

3.4.1 Standards compliance

3.4.2 Hardware limitations

3.4.3 Any other constraint

3.5 Software System Attributes

3.5.1 Reliability

3.5.2 Availability

3.5.3 Security

3.5.4 Maintainability

3.5.5 Portability

4 Formal Analysis Using Alloy

5 Effort Spent

Date:	Person:	Part:	Time (in hours):	Description:
18/10/2020	Ozan Incesulu	General Structure	0.75	Imported and built the general document structure, switched LF -> CRLF for Windows, replaced template parts with names, year and project title
18/10/2020	Ozan Incesulu	Introduction	1.5	Start writing introduction by adding comments for draft goals, adding further subsections, writing basic definition of the system, some abbreviations, definitions, acronyms and references