



POLITECNICO
MILANO 1863

CLup - Customer Line Up

Software Engineering 2 Project 2020/21

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Contents

Table of Contents	3
1 Introduction	4
A Purpose	4
B Scope	4
C Definitions, Acronyms, Abbreviations	4
C.1 Definitions	4
C.2 Acronyms	4
C.3 Abbreviations	4
D Revision History	4
E Reference Documents	4
F Document Structure	4
2 Architectural Design	5
A Overview: High-level components and their interaction	5
B Component view	5
C Deployment view	5
D Runtime view	5
D.1 oneSubsectionPerAction	5
E Component Interfaces	5
F Selected architectural styles and patterns	5
G Other design decisions	5
3 User Interface Design	6
4 Requirements Traceability	13
A External Interface Requirements	13
5 Implementation, Integration and Test Plan	14
A Implementation	14
B Integration	14
C Test plan	14
6 Effort Spent	15
7 Used Tools	16

1 Introduction

A Purpose

The goal of this document (DD: Design Document) is to

B Scope

C Definitions, Acronyms, Abbreviations

C.1 Definitions

C.2 Acronyms

- **RASD**: Requirements Analysis and Specification Document
- **GPS**: Global Positioning System
- **CLup**: Customers Line-up
- **DD**: Design Document

C.3 Abbreviations

- **Rn**: requirement number n

D Revision History

E Reference Documents

- **Specification Document**: “R&DD Assignment AY 2020-2021.pdf”
- **Slides of the lectures**

F Document Structure

This DD is composed by 7 main sections:

- SECTION 1 is the introduction ...
- SECTION 2 contains the architectural design
- SECTION 3 with the user interface design
- SECTION 4 contains requirements traceability showing how the requirements described in the RASD map the design components identified in this document.
- SECTION 5 concerns the implementation, integration and testing. Here it is defined how the subcomponents should be implemented and integrated and which kinds of tests should be carried out on them.
- SECTION 6 contains a table with the effort spent by each member of the group.
- SECTION 7 references/tools.

2 Architectural Design

A Overview: High-level components and their interaction

B Component view

C Deployment view

D Runtime view

Here are proposed sequence diagrams in order to describe the way components interact with each other to accomplish specific tasks (the ones shown in the use cases of the RASD document).

D.1 oneSubsectionPerAction

E Component Interfaces

F Selected architectural styles and patterns

Explain which styles/patterns you used, why, and how

G Other design decisions

3 User Interface Design

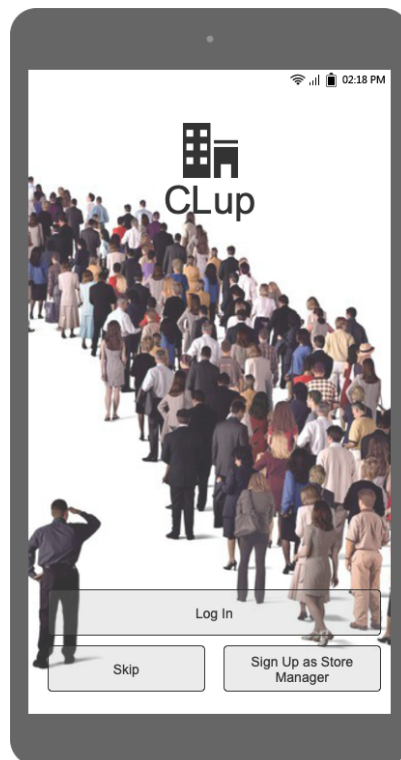


Figure 1: Starting page

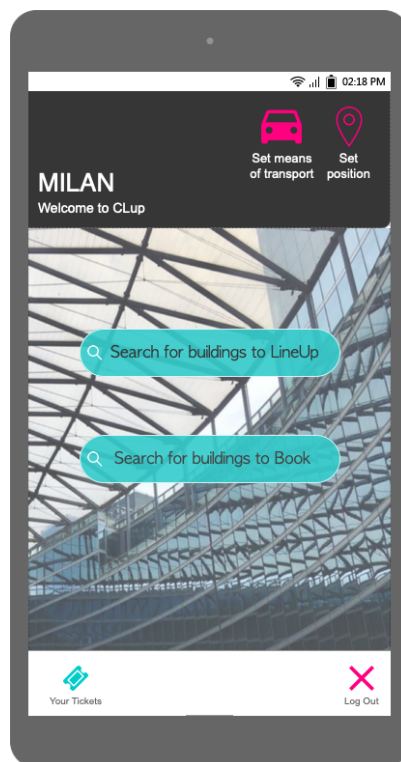
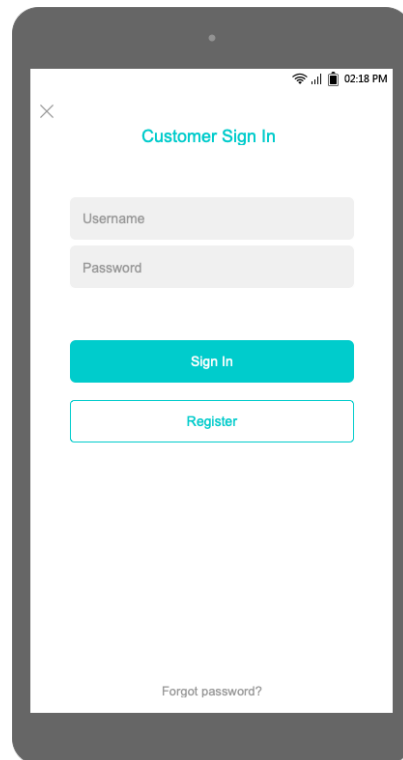
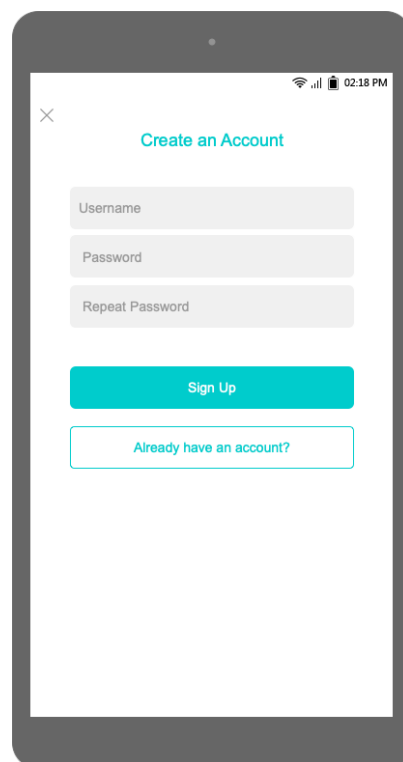


Figure 2: General home page of a registered customer



A mobile app interface for customer sign-in. At the top, there is a close button (X) and a status bar showing signal, battery, and time (02:18 PM). The title "Customer Sign In" is centered. Below it are two input fields: "Username" and "Password". A teal "Sign In" button is positioned below the password field, followed by a white "Register" button with a teal border. At the bottom, there is a link "Forgot password?".

Figure 3: Interface for customers that want to sign in



A mobile app interface for creating a new account. At the top, there is a close button (X) and a status bar showing signal, battery, and time (02:18 PM). The title "Create an Account" is centered. Below it are three input fields: "Username", "Password", and "Repeat Password". A teal "Sign Up" button is positioned below the "Repeat Password" field, followed by a white "Already have an account?" button with a teal border.

Figure 4: Interface for customers that want to register to CLup

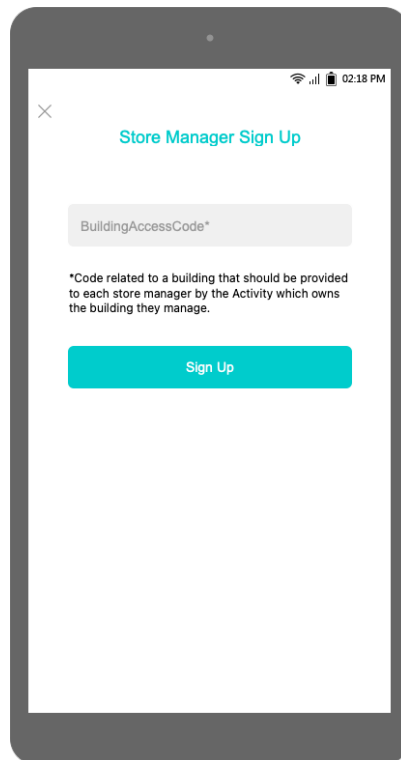


Figure 5: Interface for store managers to sign up

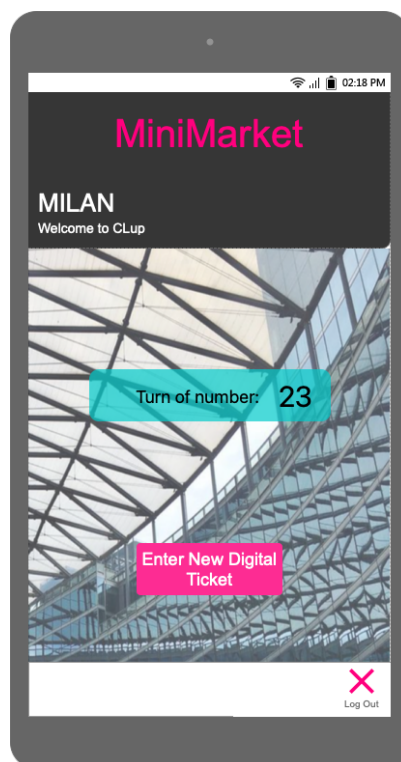


Figure 6: Home Page for store managers that have signed up

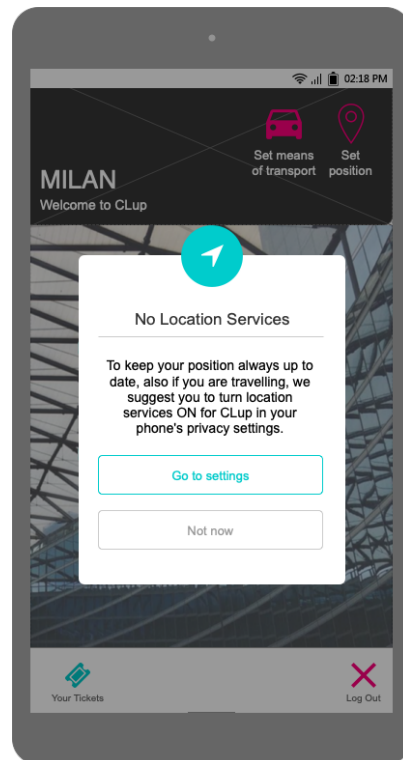


Figure 7: Pop-up to activate GPS services

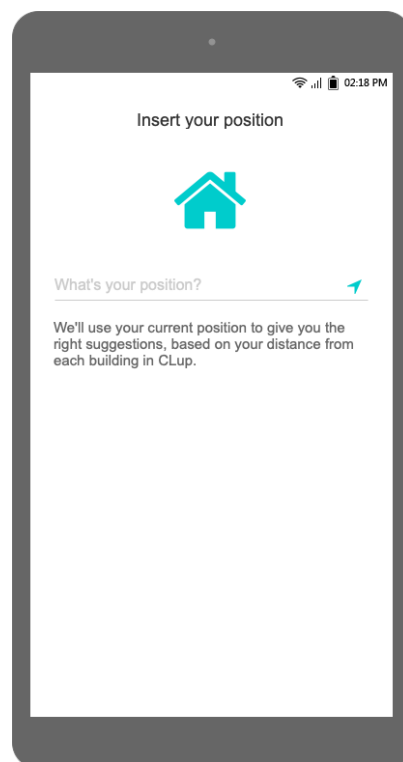


Figure 8: Setting page to set a position manually

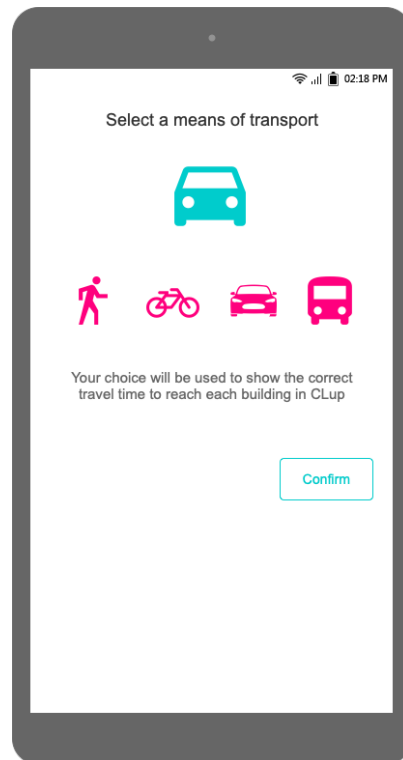


Figure 9: Setting page to choose a means of transport

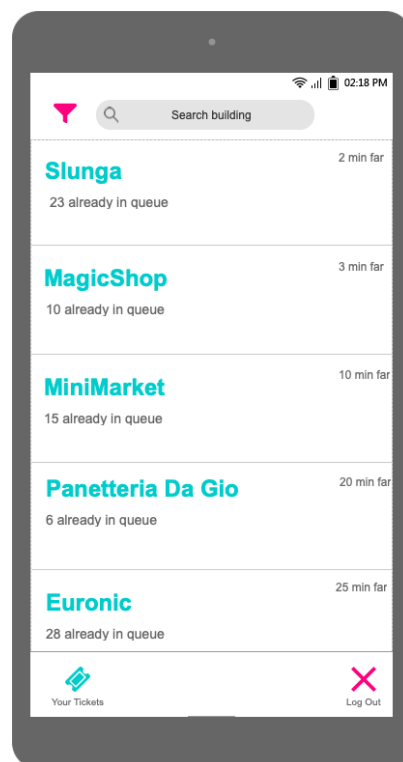


Figure 10: List of available buildings

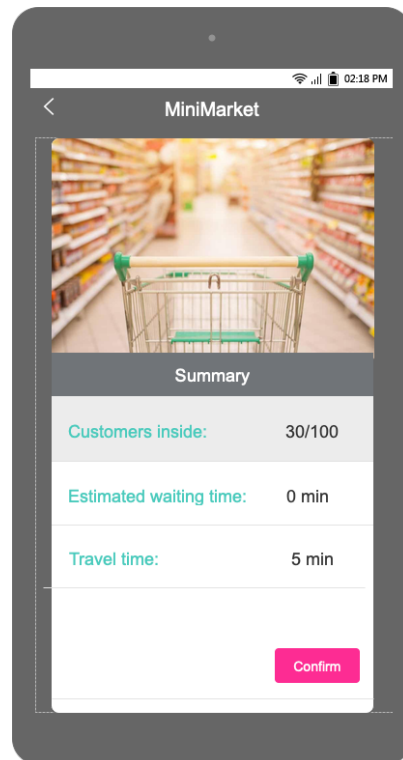


Figure 11: Summary page after the choice of a building to line up for.

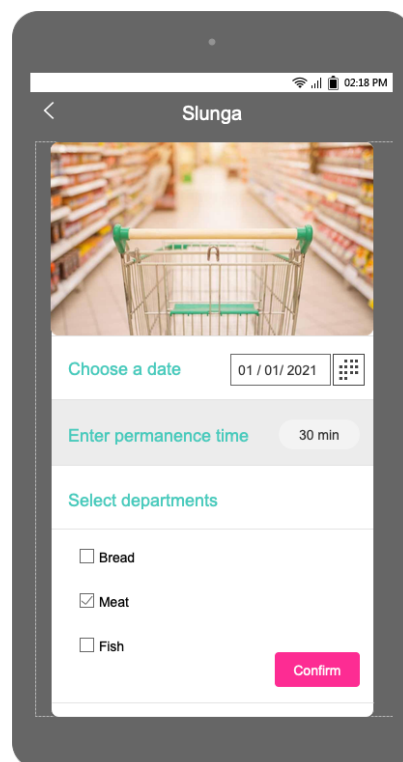


Figure 12: Options to set in order to book a time slot for the chosen building

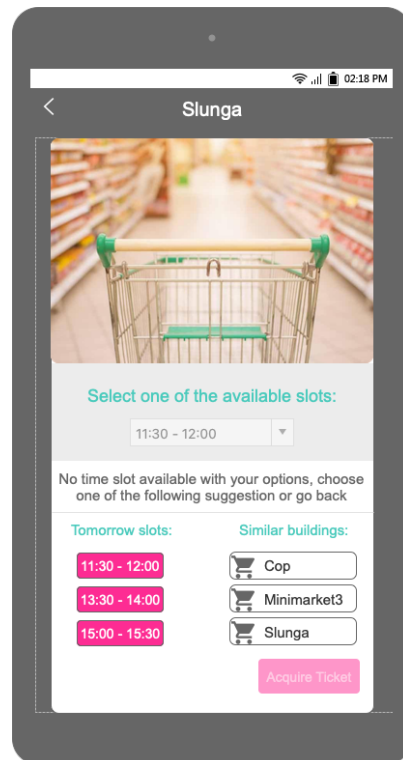


Figure 13: Interface to decide one of the available time slot/see alternative suggestions

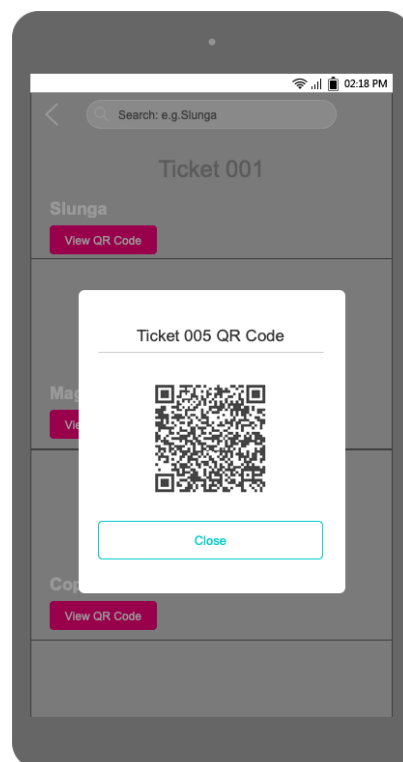


Figure 14: List of tickets of a customers, with the possibility to view the related QR code

4 Requirements Traceability

A External Interface Requirements

5 Implementation, Integration and Test Plan

A Implementation

B Integration

C Test plan

6 Effort Spent

<i>Task</i>	<i>Name</i>	<i>Time spent</i>
x	Francesco Attorre	h
x	Thomas Jean Bernard Bonenfant	h
x	Veronica Cardigliano	h
x	Francesco Attorre	h
x	Veronica Cardigliano	h
x	Veronica Cardigliano	h
x	Francesco Attorre	h
x	Thomas Jean Bernard Bonenfant	h
x	Veronica Cardigliano	h
x	Veronica Cardigliano	h
x	Thoma Jean Bernard Bonenfant	h

comments

7 Used Tools

Tools used to create this RASD document:

- StarUML: for all the UML diagrams
- LaTeX: to create the pdf
- GitHub: for the repo of the project
- GoogleDoc: for a shared editing of the document