Immagine che contiene logo

Descrizione generata automaticamente

Iqueue Project

RASD

Software Engineering for Automation (2022-2023)

Giacomelli Gianluca, 10615105 Professors: Rossi Matteo Giovanni

Gottardini Andrea, Codice persona Lestingi Livia

Veronese Niccolò Enrico, 10620278

Summary

[1 Introduction 3](#_Toc131174259)

[1.1 Purpose 3](#_Toc131174260)

[1.2 Scope 3](#_Toc131174261)

[1.3 Definitions, Acronyms, Abbreviations 3](#_Toc131174262)

[1.4 Reference Documents 3](#_Toc131174263)

[1.5 Document Structure 3](#_Toc131174264)

[2 Overall description 3](#_Toc131174265)

[2.1 Product perspective 3](#_Toc131174266)

[2.2 Product functions 3](#_Toc131174267)

[2.3 User characteristics 3](#_Toc131174268)

[2.4 Assumptions, dependencies and constraints 3](#_Toc131174269)

[3 Specific requirements 3](#_Toc131174270)

[3.1 External Interface Requirements 3](#_Toc131174271)

[3.2 Functional Requirements 3](#_Toc131174272)

[3.3 Performance Requirements 3](#_Toc131174273)

[3.4 Design Constraints 3](#_Toc131174274)

[3.5 Software Systems Attributes 3](#_Toc131174275)

# 1 Introduction

## Purpose

## Scope

## Definitions, Acronyms, Abbreviations

## Reference Documents

## Document Structure

# Overall description

## Product perspective

## Product functions

## User characteristics

## Assumptions, dependencies and constraints

# Specific requirements

## External Interface Requirements

## Functional Requirements

## Performance Requirements

## Design Constraints

## Software Systems Attributes

# **1 Introduction**

A RASD is a document that aims to present all the requirements of the system to be developed, explaining the domain in which it has to operate. A RASD should work as baseline for the following tasks in software development, in particular in project planning, software evaluation and change control. Such document has a wide audience, and hence it has to be written as clear as possible.

## **Purpose**

The main goal of the application IQUEUE is to give the customers of small-medium size shops an efficient way to track the queue and the waiting time of those shops so that they can decide when to go to the stores, optimizing in this way their precious time. An additional feature of this app is that shop owner can keep track in an easy way the daily and even hourly number of customers and, at the same time, they have a useful instrument to advertise their activity and to create a lock-in effect in the clients. Therefore, IQUEUE must be an application which can allow both the customers and the owners to register, with different options, and which can relate to a GPS environment such as Google Maps. Consequently, the goals of this project are:

|  |  |
| --- | --- |
| G1 | The customers can identify the cardinality of the queue for the specific shop |
| G2 | The shop owners can keep track the number of people entering in their activity |
| G3 | The customers can have economic benefits by entering in the shops using our Iqueue app |
| G4 | The shop owners can advertise their store using the app |
| G5 | …. |
| G6 | … |
| G7 | … |
| G8 | …. |

## **Scope**

Iqueue is a software system that has to work in a World where the following phenomena occur:

|  |  |
| --- | --- |
| WP1 | A customer with the Iqueue application enters in a shop |
| WP2 | A customer without the Iqueue application enters in a shop |
| WP3 | The shop faces a problem for its ticket service |
| WP4 | The shop owner publics sales regarding its products |
| WP5 | … |
| WP6 | … |
| WP7 | … |
| WP8 | … |

The shared phenomena, which are the intersection between the World phenomena W and the Machine phenomena, are:

|  |  |
| --- | --- |
| SP1 | A costumer registers on the Iqueue app |
| SP2 | A shop owner registers on the Iqueue app |
| SP3 | A costumer makes the login on the Iqueue app |
| SP4 | A shop owner makes the login on the Iqueue app |
| SP5 | … |
| SP6 | … |
| SP7 | … |
| SP8 | … |

## **Definitions, Acronyms, Abbreviations**

The World is the portion of the real-world affected by the machine. Michael Jackson. 1995. The world and the machine.

## **Reference Documents**

IEEE 29148-2018 Requirements engineering, the IEEE specification document that “provides details for the construct of well-formed textual requirements, to include characteristics and attributes, in the context of system and software engineering”;

## **Document Structure**

This document complies with the SRS11 standard structure as it is defined in the IEEE 29148-2018 Requirements engineering, section 9.6. Nevertheless, the order of the contents has been slightly changed in order to facilitate the readers in the reading of this specific RASD. Therefore, the document is divided in 3 main parts:

1. the first part (to which this section belongs) provides an introduction to the system to-be, Iqueue, making clear which are the goals it is required to achieve and in which context it is going to operate;
2. the second part provides a more detailed description of the functions that Iqueue has to implement relating them to the main concepts of the system and to the user needs; it also provides the main assumptions under which Iqueue will work properly;
3. the third part contains the complete requirements of the system, from both the functional and the non-functional points of view;

It should be remarked that the structure of this document does not follow a logic or temporal order, but whoever is interested in the reading can jump from a section to another, because the purpose of it is to be a reference document.

# **Overall description**

## **Product perspective**