6300Sum14Project2
Supplementary Specification

Version 1.0

Revision History

Date	Version	Description	Author
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Supplementary Specification

1.Introduction

This document provides supplementary requirements for CS6300Sum14Project2 - the Coffee Cart System. The information in the document is meant to define the expectations of the overall system rather than detail the system operations, as defined in the use-case model.

1.1. Purpose

The purpose of this specification is to detail requirements that are considered non-functional, that is, not directly defined in the formal requirements document for the software to be built, yet nonetheless, just as important to the overall success and usability of the software system.

1.2. Scope

This document describes the supplementary specification for CS6300Sum14Project2 software application deliverable entitled the Coffee Cart System.

1.3. Definitions, Acronyms, and Abbreviations

Refer to the glossary at the end of this document.

1.4. References

For a complete list of documents referenced within this specification, see Appendix ??

1.5. Overview

The remaining document is organized based on the desired characteristics of the system. Each characteristic is broken down into sub-components, detailing each one.

2.Functionality

2.1 Accessibility

The system application shall be accessible to every Coffee Cart Owner within the enterprise, 24/7, except during scheduled maintenance periods. The system application shall be available for download and installation at any time a Coffee Cart Owner joins the enterprise, or needs to add to or update the devices with which the software will run on.

2.2 Security

The system application shall practice safe security techniques to protect itself, Owners and users from vulnerabilities related to unauthorized use. The system application shall be secured and available only to Coffee Cart Owners.

3.Usability

3.1 Training time

The system shall provide help sections and intuitive screens as to allow a normal user to become productive at entering and maintaining new customers, placing preorders and purchases and producing reports within 1 hour or less.

3.2 Task Times

The system shall be easy and intuitive enough to allow the following task times:

Entering and maintaining of customer information: 2 minutes or less
Completing a customer purchase or preorder: 1 minute or less

Producing a daily report: 10 seconds or less

4.Reliability

4.1. Availability

The Coffee Cart System should be available 99% of the time, and 24/7. Particular attention must be given to availability during peak hours, that is, the hours of operation where there are carts actively on the street doing business. Peak hours are from 5am - 3pm.

4.2 Accuracy

The system should display real time data 99.99% of the time.

4.3 Defect Rate

The system should have a defect rate no higher than 1 bug per 6 KLOC (lines of code)

4.4 Backup/Restore

The Coffee Cart System should have the proper means in place to regularly backup the system data for   archival or restorative purposes. Upon the event that system data has been lost, there shall be processes in place for the accurate and timely restoration of the data, for any component or systemwide.

4.5 Extensibility

The system shall take future growth into consideration, such as extending the system or enhancing existing features of the system while minimally affecting, or not affecting at all, the existing features or components of the system.

4.6 Failure Management

The system shall be able to accommodate Owner operations from more than 1 device

5.Performance

The system application should be able to accommodate up to 300 Coffee Cart Owner operations simultaneously, at peak hours.
The system should be able to manage and store upwards of 5000 customers, their customer information as well as their ongoing customer purchases.
The system should be able to manage and store upwards of 50 dessert items, including the relevant item and preorder information.
The system should be able to store the history of customer information and purchases indefinitely.

5.2 Degradation Modes

The system shall continue to operate in the event that the central computer becomes unreachable.

5.3 Response Times

The system shall install on a users device within 120 seconds.
The system shall record any new database event, such as a customer update, a purchase or preorder update within 3 seconds of the desired request.

5.4 Computing Resources

The system shall maintain low utilization of computing resources, including but not limited to device power consumption, I/O times, memory management, hard disk space and network throughput.

6.Supportability

6.1 Configuration Management

The system shall be easy to install, upgrade and configure for the Owners. The configuration management shall provide for the administration, updating and tracking of all system information on a subsystem basis, such as owner, customer or product related events.

6.2. Maintainability

Scheduled maintenance must be known 14 days prior to planned outage, and must only take place during non-peak hours and wherever possible between the hours of 12am - 4am.

7.Design Constraints

The system shall be developed for the Android Open Source Platform 4.4.2
The system shall be developed in java and adhere to the JDK 1.6 compliance level

8.Online User Documentation and Help System Requirements

The system shall provide a set of documents including a users manual and FAQ, available online to the end user, as part of the system.

9.Purchased Components

9.1 Interoperability

When network connectivity is available, the system shall interoperate seamlessly with the central computer for centrally storing information.

10.Interfaces

10.1.User Interfaces

New Owner interface - allows the owner information to be updated including setting or resetting their password
Customer Information interface - allows the owner to add, edit or delete a customer's information
Purchase interface - allows the owner to add a customers purchase
Preorder interface - allows the owner to preorder a desert
Report interface - allows the owner to produce reports

10.2 Software Interfaces

The system will employ SQLite for storing and retrieving data in a db.
The system will employ the use of the android "print" framework to print to a printer connected over wifi or bluetooth.

11. Licensing Requirements

11.1 End User License Agreement

The system shall have in place the necessary software license agreement presented to the Owner upon installation of the software. The license agreement is a contract between the Coffee Cart Enterprise and the Coffee Cart Owner, establishing the Coffee Cart Owners right to use the software

Glossary of Definitions, Acronyms and Abbreviations

Customer - The individual who has a VIP card number assigned, can make purchase and preorders.
Coffee Cart Owner - The individual who operates the coffee cart, collecting and processing customer orders and sales.
Enterprise - The corporate sponsor or overseer of all the coffee cart processes in the field.
KLOC - Thousands lines of code. Commonly used as a way to indicate the size or scope of the issues within a system.

References

Use Case Model - see Deliverable2 at https://github.com/gt-ud-softeng/cs6300-summer-team02/tree/master/6300Sum14Project2