Prj_5_StoreInventory Requirements Specification

Version 1.0

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Group, year: 936, III

Version History

Version	Description of Change	Author	Date
V01	Initial/Modification of ….	Student Name	27 February, 2017

Contents

1. Introduction

The system is an application dealing with products of a store. It provides basic operations on a list of products provided. The user may perform an addition of an object and they may see the list of all available products as well as lists with some constraints.

1.1.Purpose

The purpose of this document is to provide a general overview of the application, an overall description of the functional requirements of the system. The system, which is called Prj_5_StoreInventory, is a virtual store which provides some CRUD functionalities and filters.

1.2. Scope

The scope of this document is to notify the reader about the necessary requirements for implementing this application and it may accomplish this by functionally specifying each necessary step. The specification must be detailed and contextual for each functionality.

1.3. Definitions, Acronyms, and Abbreviations

Acronyms: "_" – used to define empty string

UML - Unified Modeling Language

UML Use Case Diagrams: Use case diagrams are usually referred to as behavior diagrams used to describe a set of actions (use cases) that some system or systems (subject) should or can perform in collaboration with one or more external users of the system (actors).

1.4. Document Overview

The document is organized from lager sections to subsections and each subsection must be contextually relevant to its section. The sections are denominated with natural numbers (1,2) while subsections are denominated with real numbers (1.3), corresponding to each section. The document has a logical organization each subsection being presented gradually and according to a user-defined relevance.

2. Product/Service Description

The product is created because of a need of management of certain products each partaining to a certain category and a certain supplier. Certain requirements like user interface management may be later specified in accorrding to the need of the client. For now, for the first iteration a console application shall be designed.

2.1.Product Context

This product does not have any associated with other known products. It is independent, self contained and self managed. It does not interface with any systems except for input data which is taken from a locally stored file. At a later point in the design phase this may be changed according to the need of the client. The system is locally stored and the data provided is also locally stored so it does not have any interconnection. It is a component of the larger system which may be the user operating system.

2.2.User Characteristics

USER	EXPERIENCE	THECHNICAL EXPERIENCE	Other factors
Owner	Experience with managing a store	Basic programming skills	Client that has intimate knowledge of the product
Employee	May have work experience: counter salesman, manager, etc.	May or may not have programming skills	May interact with the product daily
Manager	Has management working experience	May have programming skills	May interact with the product ocasionally

3. Requirements

The requirements of the system shall be described in full detail in the following sections. Every output and input into the system will be recorded and documented. The requirements will also be numbered according to importance and according to dependencies, using numbering subsections. They may be prioritized.

3.1. Functional Requirements

List the functional requirements (FR) of the system.

Section/ Requirement ID	Requirement Definition
FR1	The system shall add a new Product. The product has the following fields: code:int, name:string, quantity:int, supplier:string. The product information input will be specified in the console and the products will be saved in a locally stored txt file. The output will be on the console.
FR2	The system shall list the Products from a Category. The user inputs a string which is the Chosen category and the system must return a list containing all products from that category. The input is a locally stored txt file from which the system will output the products. The output will be on the console screen.
FR3	The system shall present stock situation for all products. The system must return a list with all products and their quantities and respective information. The list items will be taken from a locally stored list and the output shall be processed in the console.
FR4	The system shall present stock situation for a specified product. The user will specify a string which will be the product for which he queries the information. After that the system will output the stock situation (quantity) for that product. The list items will be taken from a locally stored list and the output shall be processed in the console.

3.2.User Interface Requirements

The interface shall be implemented as a console application. The menu for the interface shall be structured with numbers and next to the respective number the command. The user will input the number as an option and the program will run the command next to the number. The user shall be notifiied of empty lists and invalid queries with a message in the console. There will be an exit option.

3.3.Usability

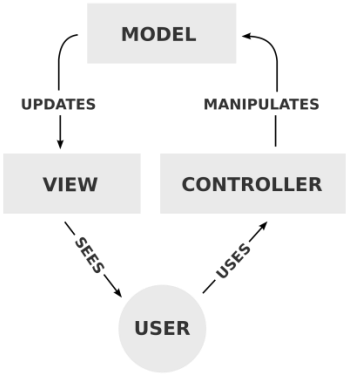
- The user documentation should be complete and provide a general overview of each functionality and delve into specifics
- The help should be context sensitive and explain each functionality within a certain context and scope
- The system should be clear and concise
- The system will present the user with messages informing them of where he is at each step of te application
- The system will clearly specify the commands it implements
- The system will have options in the menu implemented and correct

Learnability

- The user documentation and help should be complete
- The help should be context sensitive and explain how to achieve common tasks
- The system should be easy to learn
- The system should be intuitive and concise
- The system should be clear for people with no experience programming

3.4.Data Management

- types of information used by various functions:
  Functions use string, int type arguments as input and output
- data entities and relationships
  Model – View – Controller
  Model: Product class
  View: StoreRepository class
  Controller: StoreController



- valid range, accuracy,tolerance
  Range for number type argument is integer-type. The numbers are always integer type and not real.
  Sting rage is memory tolerant depending on the system and local storage.
- default or initial values
  Default/initial values for numbers are: 0
  Default/initial values for string format is empty string: "_"

4. User Scenarios/Use Cases

Provide a summary of the major functions that the product will perform. Organize the functions to be understandable to the customer or a first time reader. Include use cases and business scenarios, or provide a link to a separate document (or documents). A business scenario:

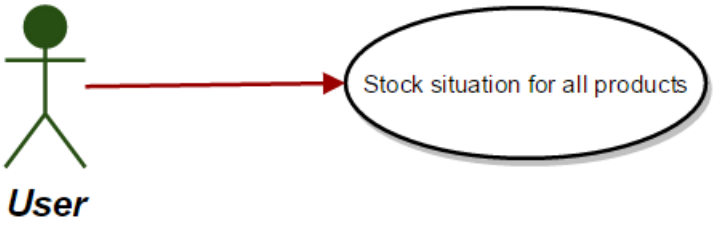
- Describes a significant business need
- Identifies, documents, and ranks the problem that is driving the scenario
- Describes the business and technical environment that will resolve the problem
- States the desired objectives
- Shows the "Actors" and where they fit in the business model
- Is specific, and measurable, and uses clear metrics for success

1.Add Product
The user is able to add a product to the list of products. The product will contain code:int, name:string,category:string,supplier:string. The input values for the members will be retrieved from the console and the system will persist the data on a local file called "products.txt" in which he will maintain all products.

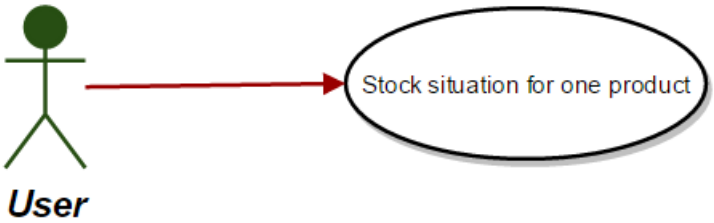
2.List products from Category
The user is able to list all products which have a certain category. They must input the category for which they would like to see the products. The input values will be retrieved from

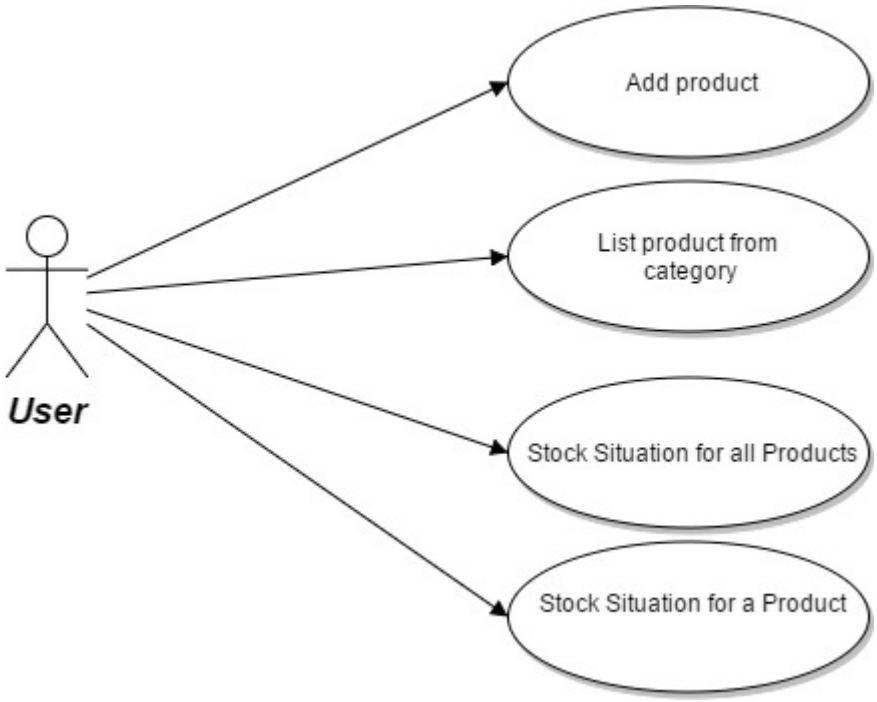
the console and the system will output on the console the list will all the products and their associated information.

3.Stock situation for all products
The user will see all the products on the suppliers' stock. They will receive a list of products. The input values will be retrieved from the console and the system will output on the console the list will all the products and their associated information.



4.Stock situation for a product
The user will see the available stock of a certain product. They will input the product name and will receive the available stock. The input values will be retrieved from the console and the system will output on the console the list with the products and its associated information.




Add product
List product from category
Stock Situation for all Products
Stock Situation for a Product
User