UNIVERSIDAD DE LAS FUERZAS ARMADAS ESPE

Theme:

Specification of Requirements according to the IEEE 830 standard
Clothing store “Bethsabé Boutique”.

G4 Software Juniors.

Members:

Caetano Flores, Jordan Guaman, Carlos Jaya, Bryan Jumbo.

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Professor: Edison Lascano.

1. INTRODUCTION

***Details:**

The clothing store " Bethsabé Boutique" is a family business that is in Quito, Ecuador.

His owner is Miriam Tul, she has had her business for approximately 40 years, her passion for fashion design led her to open her boutique in San Rafael, Quito.

***Problem:**

After the interview and based on the answers, it can be said that the business has a problem in the financial administration, merchandise and sales control and statistical sales reports.

1.1. Purpose

- To optimize the human and technological resources of the clothing store.
- Develop a customer-friendly tool, knowing that customers and store staff have basic notions of technological tools.
- That the system manages to cover all the information and that the errors are minimal
- Automate processes: Simplify and streamline administrative tasks (now only inventory).
- Through the implementation of GUI synchronized with the database, it will facilitate the administration of the store.
- Make the product catalog look more aesthetically.
- Keep an optimized control of sales, products in stock and reports.

1.2. Scope

Due to our knowledge in development through code, we can make use of multiple tools provided by the structure, syntax, and libraries of the chosen programming language to develop the final program (Java), to give examples, we will use data input and output, storage, editing and deletion of data, and printing of data outside the console (Json/CSV).

Based on self-learning and guidance from the teacher, it will be possible to implement a graphical interface with prior synchronization with the Mongo DB database, actions which will allow the application of the 4 business rules.

1.3. Definitions, Acronyms, and Abbreviations

In the program, the common terms used to define each class are:

- Add
- Inventory
- Report
- Manager
- Simulator
- Factorize

We avoid the use of contractions to avoid that when reading the code, it is unintelligible to us.

To GUI, the common terms used to define each panel are:

- Menu
- Login
- Add
- Sale
- Report
- Inventory (Catalogue).

Icons were used for a better understanding by the user when executing.

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1.4 References

The following documents have been consulted for the preparation of the document:

- IEEE Recommended Practice for Software Requirements Specification.
ANSI/IEEE std. 830, 1998

1.5 Document Overview

Through the interview, the client made us aware of the administrative and inventory deficiencies in his general management method of his clothing store, for which he asked us to implement an application that allows him to better manage multipleareas of the store. Through the interpreted requirements of theinterview, we can know the scope that the project must have and the functionality that it must have.

Through digital channels and personal consultations, suggestions and observations by the user are accepted.

2. OVERALL DESCRIPTION

2.1. Product Perspective

It is recommended that store personnel and the manager have basic computer skills and are familiar with the clothing sales process, that their reading be understandable but not legible, this with the aim of omitting multiple data validations for a moment.
The product is oriented to daily use, so it must be robust and avoid multiple failures with the implementation of exceptions that will determine the flow of the system.

2.2 Product Functions

The main functions of our program are:
Through a menu, the data entry will be managed by console and details of the entered product, edition of the previously registered product, deletion of a registered product, display throughCSV or Json the data entered in advance.
Through a graphic interface oriented to the easy understanding of the user, display clickable options that carry out actions (business rules) that were previously raised in the requirements.

2.2. User Characteristics

It is recommended that the store staff and the manager have basic computer skills and are familiar with the process of selling clothes, that their reading is understandable but not legible.

The restrictions that will be given (for now) are:

- The presentation of information will be given by creating CSV and Json files.
- The entry and exit of information will be given by console but not by a graphical interface.
- The number of Business Rules are limited due to the progressive progress of the project.
- Once the merchandise has been entered, it cannot be added again because a duplicate would be generated.
- Check-in will be on a first-come, first-served basis and the date of entry cannot be changed.
- The program will be developed in Java language.

The restrictions that will be gives (for now U2) are:

- Business rules are constrained (by generalization).
- Personalized printing of receipts and vouchers.
- Synchronization with third-party applications and placement of additional advertising with redirect links.

2.3. Assumptions and Dependencies

Assumptions:

- Store manager and staff are supposed to have basic computerskills.
- You are supposed to have at least one computer to be able to run the program.
- They are supposed to know how to open the NetBeans IDE and be able to run.
- It is assumed that the peripherals are in good condition because a graphical interface has now been implemented.

Dependencies:

- The fluidity of the program will depend on the components in both Hardware and Software.
- The functionality of the program will depend on the code

not being manipulated by third parties while the creation of a graphical interface is planned.

- Previous GUI implementation, the efficiency of the system will depend on the optimization of resources and its synchronization with the database.

3. SPECIFIC REQUIREMENTS

3.1. External Interfaces

User Interface:

The interface will be easy to use, have a friendly and intuitive appearance, it has a menu, it must separate options by categories, with a pleasant interface and with visible lettering. It will use the colors of the store.

Hardware interface:

The interface will focus solely on computers.

Software interface:

The software interface will be provided by the operating system used by the computers in the store, in this case Windows 7 64bits (or later), meaning that the application will be used within the windowing environment provided by this operating system.

3.2. Functional Requirements

Product Registration: The system will allow you to register dresses (by specific object).

Product Elimination: The system will allow you to eliminate a product by searching for its name.

Product Edition: The system will allow you to edit the details of the dress. The system will allow manual registration of customers to the database.

Product printing(generate): Through a menu option it is possible to obtain a document external to the console in which the dataentered by the console is located.

Product Sale: If at least one dress was previously added to inventory, it can be sold, with the current billing application for sale to the public.

Product printing(console): The existing dresses prior to the generation of the file are displayed in the console.

GUI Interface Implementation

Show Options (Menu): The options are activated with buttons to resort to the multiple actions implemented.

Show Products (Button): This option shows the products that are contained in the database**.**

Changes and Add Products by Database: This option allows you to make changes to the stock directly from the GUI to the database.

Save Products: After adding the products they will be stored in a shopping cart (metaphor), where you can edit and delete unwanted items.

Generate reports: Once the purchase is completed, a record of the sales made can be obtained..

User Login: The end user can protect his from third parties by implementing a login.

Pre-Sale Show: After selecting products, it shows a pre-sale where the products, their costs, and the total to be paid are detailed.

3.3. Performance Requirements

The system must allow a minimum of 1 registration per second for both products and customers, meaning a total of at least 2 registrations per second.

3.4. Design Constraints

The system must run under the following minimum requirements:
SO: Windows 10, 8, 7
Processor: Dual core 1Ghz+
Memory: 1 GB Of RAM
Storage:3 GB at most.

3.5. Attributes (e.g., Usability, Reliability, Maintainability)

Usability: The system must present a friendly, structured, | and intuitive interface for all personnel.

Reliability: The system must not register sales or delete sales incorrectly.

Maintainability: The system must support future implementations.

3.6. Other Requirements

Possible functional requirements to be implemented in the future could be:

- Database with contacts for sales by call
- Automatic system of application of discounts for merchandise out of season
- Interface customization with inclusion of social networksin strategic parts.
- Management of evaluations and customer opinions.VERY ADVANCED
- System for online payments through platforms with VirtualBanking.
- Merchandise suggestion according to latest searches.
- Guarantee application system with their respective legalsupport.
- Customize interface with phone numbers to solve problems about merchandise or problem system.
- Synchronization with banking and advertising platform