



Kedarling Clothing Store Application: A Digital Platform for Clothing Store to Manage Sales Activity and Stock Management with Database

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ABSTRACT

The project is based on Clothing Store Software. It is a Desktop application that can help a clothing business or apparel businesses to manage their stocks and sales management Retail operations, such as clothing stores leverage technology to cut operational costs, increase store security and facilitate a pleasant shopping experience for customers. Technology can assist in everything from scheduling employee work shifts to ordering inventory. Twenty-first century entrepreneurs looking to open a clothing store should be familiar with the range of technological tools the need to run their shops smoothly and compete with larger businesses in their areas. This Clothing Store Desktop Application is designed in Python language and SQLite database. For designing the whole lookup of software PYQT5 designing tool is used. PYQT5 is a comprehensive set of python bindings for QT v5. It is easy to use and design a software using this platform.

Keywords: Python (standard Programming language), SQLite (Type of database), PYQT5, (Designing tool).

Introduction

This software project is developed to automate the functionalities of a User-Friendly Clothing Store. The purpose of the software project is to develop a program which provides a friendly interface for the user to explore the products of the clothing store and buy them according to their choice. This software, being simple in design and working, does not require much of training to employees, and can be used as a powerful tool for the automating the Clothing Store. An application program is tied with the database for easy access and interface to the database. Using Application program or front-end, we can store, retrieve and manage all information in proper way. During coding and design of the software Project, PYQT5, a powerful front-end tool is used for getting Graphical User Interface (GUI) based integrated platform and coding simplicity. As a backend a powerful, SQLite database is used as per requirement of the software.

Different modules of software :

1.1. Login Page:

The page where the system admin or user submit their system credential to access the data and functionalities of the clothing store management system.

1.2. Home Page:

The page where the system users will be redirected by default when logging into the system.

1.3. Suppliers Page:

The page where the admin manages the list of the store's suppliers.

1.4. Bill page:

The page where the cashier, admin, or staff will encode the purchases of their customers.

1.5. Products Page:

The page where the list of products are listed and managed.

1.6. Sales Report Page:

The page where the monthly sales report is shown and ready to print.

2. Literature Review

3.1 Kendriya Vidyalaya Upper Camp, Dehradun: Clothing Store Management System for AISSCE 2011 Examination.

This software project is developed to automate the functionalities of a user friendly clothing software. The purpose of this software project is to develop a program which provides a friendly interface. During coding and designing of the software project, JAVA NETBEANS IDE the powerful front-end tool is used for getting GUI.

3.2 Some Stability Measures for Software Maintenance- January 2019 S.S. Yau Department of Electrical Engineering and Computer Science, Northwestern University, Evanston, IL, USA

Software maintenance is the dominant factor contributing to the high cost of software. In this paper, the software maintenance process and the important software quality attributes that affect the maintenance effort are discussed. One of the most important quality attributes of software maintainability is the stability of a program, which indicates the resistance to the potential ripple effect that the program would have when it is modified. Measures for estimating the stability of a program and the modules of which the program is composed are presented, and an algorithm

for computing these stability measures is given. An algorithm for normalizing these measures is also given. Applications of these measures during the maintenance phase are discussed along with an example. An indirect validation of these stability measures is also given. Future research efforts involving application of these measures during the design phase, program restructuring based on these measures, and the development of an overall maintainability measure are also discussed.

3. Advantages and Disadvantages

Advantages

- It generates bill automatically after entering mandatory details.
- Manages stock availability and alerts if stock is running out.
- Effectively automates time consuming tasks.
- It generates QR Code for a particular product and also shows the details of each product by scanning QR Code.
- It is more secure because it fetches the MAC address of Admin PC

Disadvantages

- System does not have employee database.
- It is not a platform independent system.

4. Objectives and Scope

Objectives:

- The objective of software project is to develop a computerized system to automate the functions of clothing store.
- The software project enhances the current record keeping system which will help managers to retrieve the up to date information at right time in right shape.
- To provide a user friendly, Graphical User Interface(GUI) based integrated and centralized Software.
- The proposed system should maintain all the records and transactions, and should generate the require reports and information when required.
- To provide Graphical and User-friendly interface to interact with the centralized database.
- To identify critical operation procedure and possibilities of simplification using modern IT tools and practices.

Scope:

In its current scope, the software enables user to retrieve and update the information from centralized database designed with SQLite. This software does not require much training time of the users due to limited functionality and simplicity. During the development of Clothing Store Software project, Python (standard Programming language) is used , and also Visual Studio Code(VS code) and PyQt5 environment is used for modular design and future expandability of the system. In this software we can save the data of generated bills, maintain the stock, it also determines the product by it's particular QR Code and it also has a built-in calculator for calculation.

5. Methodology

5.1 System Architecture

This software project is developed to automate the functionalities of a User-Friendly Clothing Store. The purpose of the software project is to develop a program which provides a friendly interface for the user to explore the products of the clothing store and buy them according to their choice. This software, being simple in design and working, does not require much of training to employees , and can be used as a powerful tool for the automating the Clothing Store.

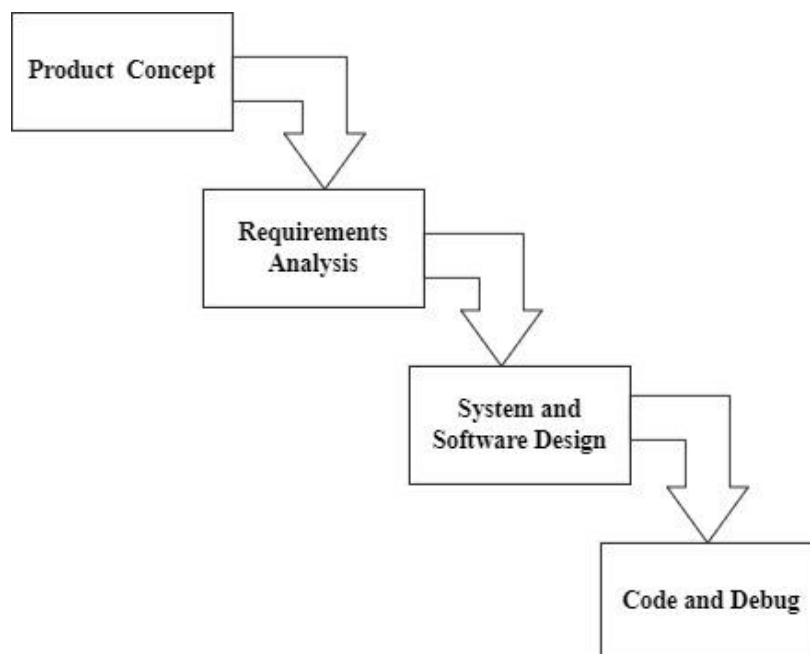


Figure :5.1

5.1.1 Module 1: Product Concept

Need of the software in the current situation for clothing store is that first people used to maintain all the records of clothing store manually, so they were facing lot of difficulties like maintaining large amount the data, bill processing, stock managing, and supplier records. So inthis project we are going to overcome all difficulties faced by the clothing stores with the help technology.

5.1.2 Module 2: Requirements Analysis

This software is designed only for owner of the shop. Which is used to generate the bill.

Following are the requirements of the software:

- 1] Software should generate the bill in which shop name should be present at the top of the bill.
- 2] It should maintain the stock of the product and owner should receive the message on mobile when products get out of stock.
- 3] Every new product we add it should generate QR Code for a particular product.
- 4] After entering article number it should automatically fetch the information of particular product.
- 5] After entering valid username and password owner should be able to access the software.

5.1.3 Module 3: System and Software Design

This desktop application program is tied with the database for easy access and interface to the database. Using Application program or front-end, we can store, retrieve and manage all information in proper way. During coding and design of the software Project, PyQt5, a powerful front- end tool is used for getting Graphical User Interface (GUI) based integrated platform and coding simplicity. As a back-end a powerful, SQLite database is used as per requirement of the software.

5.1.4 Module 4: Code and Debug

For coding we are using Visual Studio Code(VS Code). Back-end of this software is designed using Python(version 3.7) language which is one of the most interpreted high-level general purpose programming language. Its design philosophy emphasizes code readability with its use of significant indentation. Its language constructs as well as its object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects.For database we are using SQLite which is a relational database management system(RDBMS) contained in a C library. In contrast to many other database management systems, SQLite is not a client–server database engine. Rather, it is embedded into the end program.

6.System Configuration

Hardware Requirement

- Processor - Core 2 Duo
- RAM - 512 MB(min)
- Hard Disk - 16 GB(min)

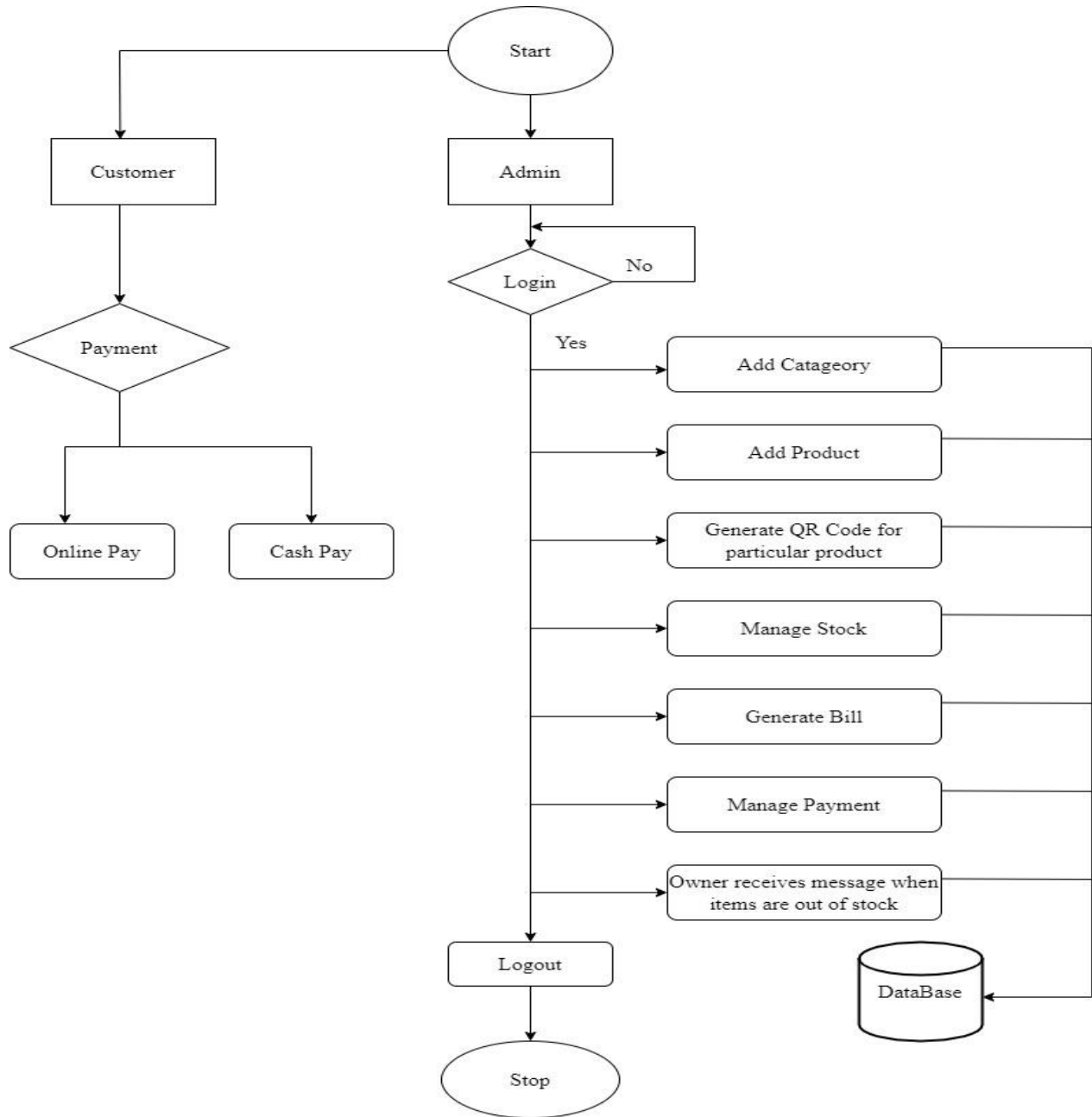
Software Requirement

- Operating System -Windows 8,Windows 9, Windows 10
- Languages - PYTHON
- Visual Studio Code(VS Code)
- PyQt5

Database Requirement

- SQLite

7.Flowchart



8. Conclusion

Software system management is required for clothing store because In traditional method, people used to maintain all the records of clothing store manually, so they were facing lot of difficulties like maintaining large amount the data, bill processing, stock managing, and supplier records. So in this project we are going to overcome all difficulties faced by the clothing stores with the help technology.

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