



Kedarling Clothing Store Software : Implementation of Digital Platform for Clothing Store

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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

1.1 BACKGROUND

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.

1.2 ENVIRONMENT

This 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 a lot of difficulties like maintaining large amount of 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 of technology.

1.3 USE OF PROJECT

- This software is useful for clothing store sales management.
- This software generates the bill for customer.
- Identify the product by scanning the QR Code.
- This software sends the message to the owner when a particular product is out of stock.

- It also generates a QR Code for a particular product.

1.4 PURPOSE

Clothing store management system is specially designed for the purpose of handling all sales activities . The system elaborates the basic concept for storing and generating item's detail.

2. In this system, staff can sign up as a system admin, He/she can have full access to the system for maintaining daily records.
3. It requires less physical effort and provides greater valued things.

Different modules of software :

- **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.

- **Home Page:**

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

- **Suppliers Page:**

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

- **Bill page:**

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

- **Products Page:**

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

- **Sales Report Page:**

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

2. LITERATURE REVIEW

- 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.

- 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. SCOPE OF PROJECT

3.1. OBJECTIVE

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

3.2. SCOPE OF PROJECT

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.

4. CORE TECHNOLOGY

4.1 DESIGNING

PYQT5 TOOL:

PyQt5 is one of the most used modules in building GUI apps in Python, and that's due to its simplicity as you will see.

Another great feature that encourages developers to use PyQt5 is the PyQt5 designer, which makes it so easy to develop complex GUI apps in a short time. You just drag your widgets to build your form.

PYTHON :

Python is a high-level, interpreted, general-purpose programming language. Its design philosophy emphasizes code readability with the use of significant indentation. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for small- and large-scale projects.

4.2 DEVELOPMENT

VISUAL STUDIO CODE (VSCODE):

Visual Studio Code, also commonly referred to as VS Code, is a source-code editor made by Microsoft for Windows, Linux and macOS. Features

include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality. In the Stack Overflow 2021 Developer Survey, Visual Studio Code was ranked the most popular developer environment tool, with 70% of 82,000 respondents reporting that they use it.

SQLITE DATABASE:

SQLite is a database engine written in the C language. It is not a standalone app; rather, it is a library that software developers embed in their apps. As such, it belongs to the family of embedded databases. It is the most widely deployed database engine, as it is used by several of the top web browsers, operating systems, mobile phones, and other embedded systems. SQLite has bindings to several programming languages such as C, C++, C#, Python and Java. The COM (ActiveX) wrapper makes SQLite accessible to scripted languages on Windows such as VB Script and JavaScript, thus adding capabilities to HTML applications. It is also available in embedded operating systems such as iOS, Android, Symbian OS, Maemo, Blackberry and WebOS because of its small size and ease of use.

5. Methodology

- **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.

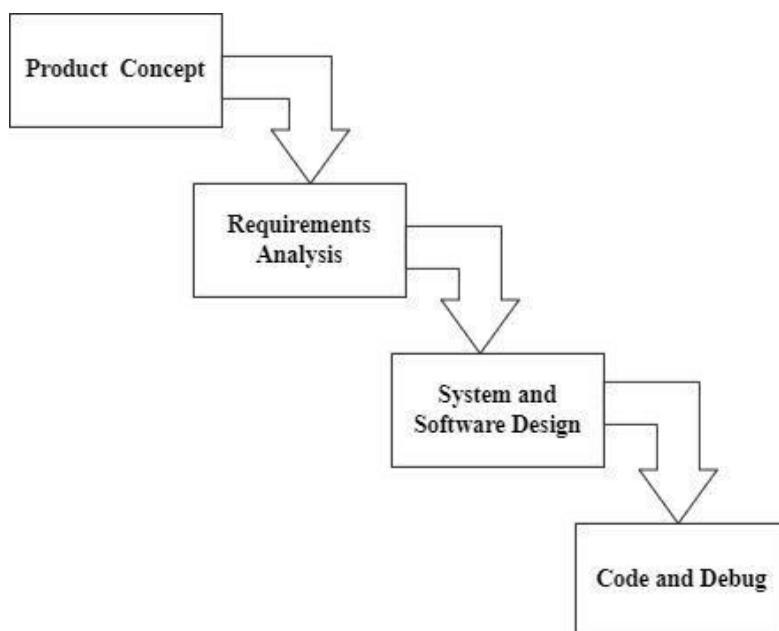


Figure :5.1

- **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 in this project we are going to overcome all difficulties faced by the clothing stores with the help technology.

- **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:

- Software should generate the bill in which shop name should be present at the top of the bill.
- 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.

- **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.

- **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)

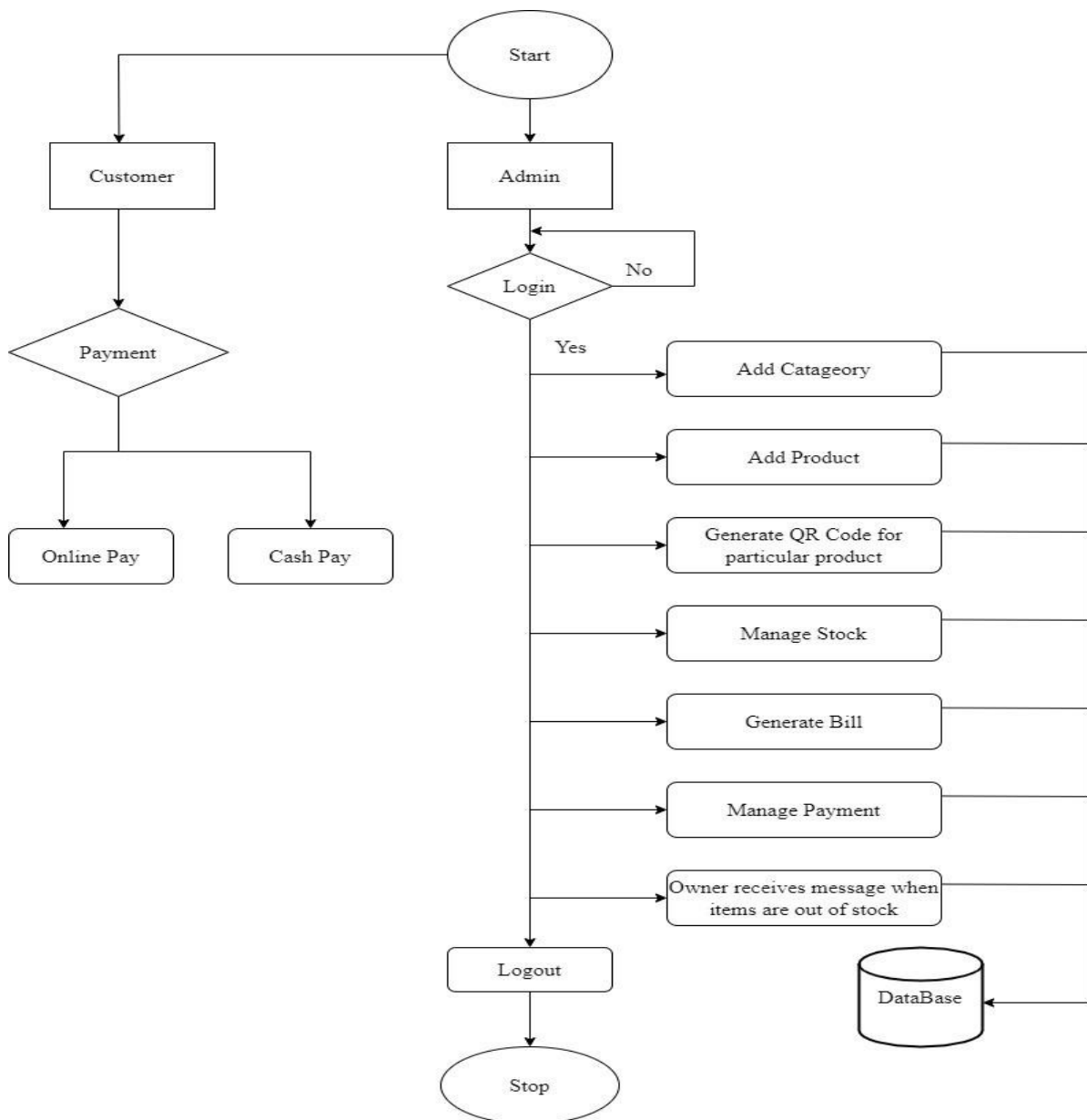
Software Requirement

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

Database Requirement

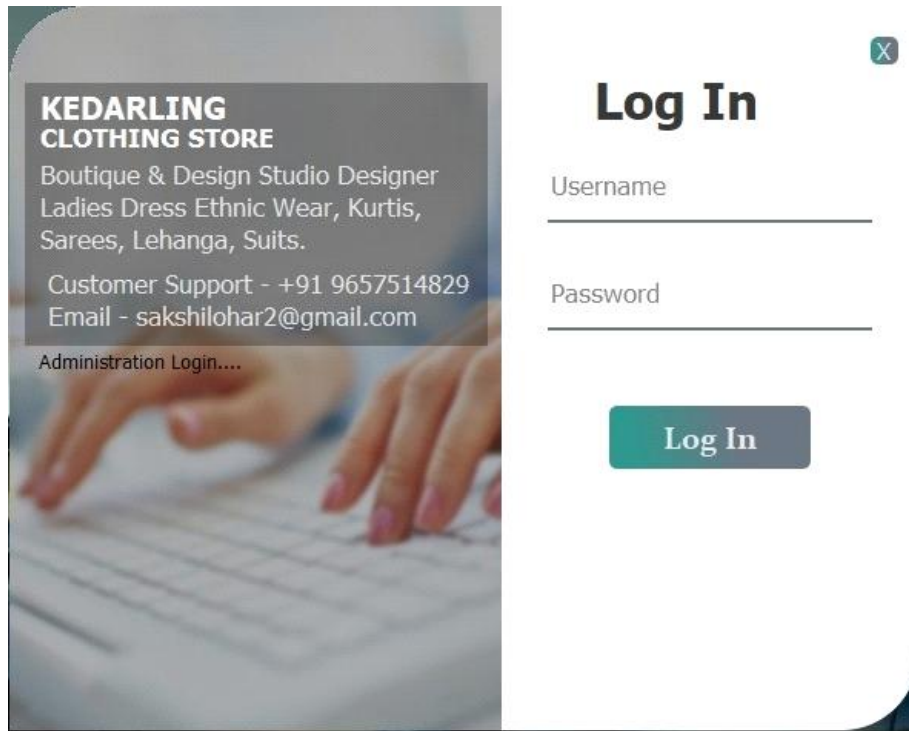
- SQLite

- **Flowchart**

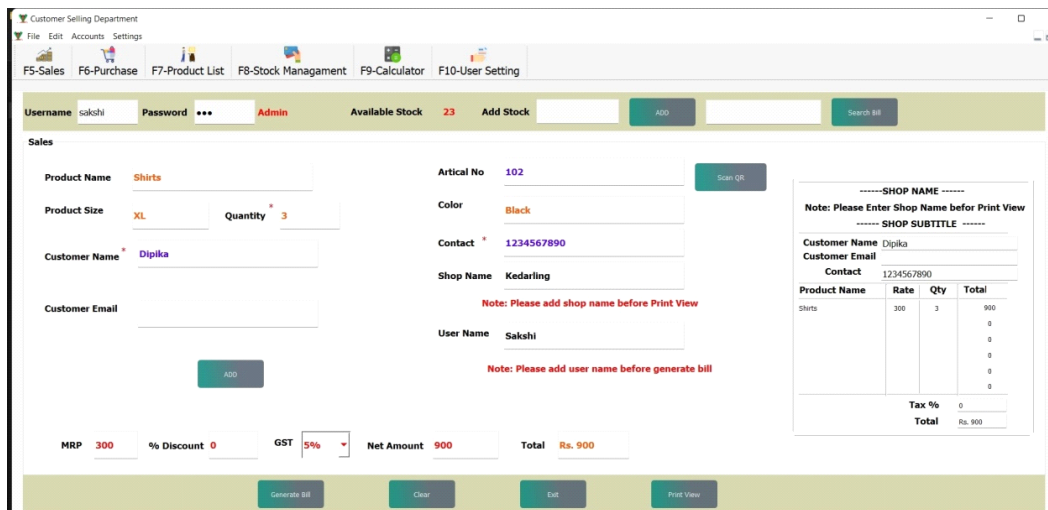


7.Screenshot of system:

- Login:



Sales Management :



- **Purchase management:**

Product Purchase Section

File Edit Accounts Settings

F5-Sales F6-Purchase F7-Product List F8-Stock Management F9-Calculator F10-User Setting

Purchase Bill No. Date: 3:5:2022 Storage Supplier Name

Supp. Bill No. Packing Quantity City Total

Payment Mode: CASH Color Size Paid Pay

Bar Code/Product Name Article No.

Purchase Bill No.	Product Name	Article No.	MRP	Sale Rate	Rate	Qty	Packing	Storage	Date	GST	Discount
1	Trouser	101	100	150	150	0	RTX12	100	27:8:2021	0	Black
2	Jeens	103	300	400	400	68	RTX12	100	27:8:2021	0	Black
3	Salwar & Kurti	104	200	600	600	50	GCC34	200	27:8:2021	0	Mang
4	Anarkali	105	500	1000	1000	44	GCC34	50	27:8:2021	0	Red
5	Shirts	102	300	599	599	23	RTX12	100	27:8:2021	0	Black
6	Trouser	106	100	150	150	48	RTX12	100	27:8:2021	0	Black

MRP Sale Rate Discount Debit Note User Name: Sakshi

Rate Net Amount GST: 5 Credit Note

Note: Please add user name before add new product

- **User Settings:**

Main Window

File Edit Accounts Settings

F5-Sales F6-Purchase F7-Product List F8-Stock Management F9-Calculator F10-User Setting

Admin Bill No.

Format No.

Shop Name

Shop Subtitle

Shopkeeper Name

Contact

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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