Bangladesh University of Business and Technology (BUBT)

Project Report

Project Name : Store Management System
Course Title : Software Development 1
Course Code : CSE 100

Submitted to:

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Submitted by:

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"GOD HELPS THOSE WHO HELP THEMSELVES"

MAY ALLAH HELP US FOR SUCCESS

(AMEEN)

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Dedication

Our Loving Parents and Teachers who's Support give us Strength and determination to accomplish our Goal…!!

Abstract

Store Management System is a project developed to automate the processes to reduce the clerical labor of the staff working in stores both technical and as well as accounts departments.

This system uses the latest technologies and cost-effective tools thereby providing the better control to the management by avoiding manual errors.

Store management system is a web-based manufacturing system that enables a manufacturing industry to schedule its manufacturing operations based on the daily update of sales from its dealers.

Acknowledgement

We like to say our gratitude to our creator ALLAH to let us into the world and our parents, who supported us in this whole study and always prayed for our success and good health. We express our deep sense of gratitude to our project Instructor **Badhan Chandra Das** for his expert guidance stimulating discussions as well as continued impetus throughout the period of this project and endless patience towards the completion of this project. We feel very proud to work with him. Without the inspiring enthusiasm and encouragement of our supervisor, this work could not have been completed. We thank all the staffs and graduate students at **Bangladesh University of Business and Technology (BUBT)** and all the friends for their support and encouragement. We would also like to extend our elder and younger brothers. Finally, we wish to express our gratitude to **Bangladesh University of Business and Technology (BUBT)** for providing an excellent environment for research and all the other facilities to complete the project successfully.

With best regards,

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Declaration

Store Management System commonly found in retail establishments which offers merchandising aids, displays and the methods used to enable transactions. In our case, we're talking about the hardware and software that runs both the front counter and back-office operations of a business.
Store Management System often feature a complex arrangement of hardware, software and network connections. This system relies on predictable operation, and any number of problems can appear when hardware, software or users do not perform as expected. This system will make sure that everything runs smoothly on every transaction. If sales are number one, good inventory control is a close second. Without good inventory control you miss out on sales, overstock unwanted products, and lose out on high profit margins. This system will keep an accurate count of every product in your store. So, we can say that it will work to reduce the hustle for both customer and retailer.

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Copyright

Certificate

This is to certify that by **Sudipto Ghosh (ID-19202103499), Shakhir Ahmed (ID-19202103390), Mumtahina Aimon (ID-19202103391), Jihad Islam (ID-19202103506), Md Tanvir Ahmmed (ID-19202103514), Khandokar Menhajul Abedin(ID-19202103519), Md Pollab(ID-19202103520)** were belong to the department of Computer Science and Engineering, have completed their project work titled **Store Management System** satisfactorily in partial fulfillment for the requirement of products.

_____

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Approval

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under the Department of

Computer Science and Engineering of **Bangladesh University of Business and Technology (BUBT)** is accepted in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science and Engineering.

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Chapter 1

Introduction

In the Store Management System, we keep track of objects or materials of the store. Properly managing the products and information is essential to the success of every dealership. Store Management System provides information to efficiently manage the flow of materials, effectively utilize people and equipment, coordinate internal activities and communicate with customers. In the current scenario of our country, few stores are automated and some are semi-automated and many are still having manual systems for keeping the record of inventory. So, we are doing this project for efficiency and to avoid the time-consuming fact. This will save a lot of time and will make everyone's life easier than ever.

Purpose:

The success of a Store Management System solely depends on the quality of its products, there are a range of other factors at play. One of the most important factors is how it is designed.

There are certain features that can help make a Store Management System more user-friendly to store owners and easy to manage from the perspective of the customers.

The main objective of this project is to create a software which is purely used to serve complete Inventory management control, stocks, Expiry & claims, effective purchase management.

Following are some other objectives of an effective system of store management:

- To ensure uninterrupted supply of materials and to store without delay.
- To prevent overstocking and understocking of materials.
- To protect materials from pilferage, theft, fire and other risks.
- To minimize the storage cost.
- To ensure proper and continuous control over materials.

Scope:

The scope of the project includes the following:

- User Friendly and Admin Friendly.
- Highly restricted.
- Can perform many tasks in a short period of time.
- Reduce employee overloaded work.

Project Overview:

The proposed Store Management System will ensure that both the manufacturer and the dealer is working with just one version of records so as to avoid discrepancies. The manufacturer need not worry about working with different dealers in different parts of the country. The tracking of SKU will help identify changes in stock and in the unfortunate event of a product recall it will make it easier to identify the customers who bought a defective product. It is easy to spot spikes in shopping and plan accordingly for the same. The manufacturer will be able to easily access and set the Cost Price for different products. The dealer will be able to initiate single or recurring buy orders. This module will alert the manufacturer about changes in stocks and expected shipments. The dealer will be able to observe historical sale data and use this to determine future demand and order accordingly. The dealer will also be able to set the Selling Price for each product. The admin will be able to control manufacturer login IDs and access.

Chapter 2

Analysis

Analysis can be defined as breaking up of any whole so as to find out their nature, function etc. It defines design as to make preliminary sketches of to sketch a pattern or outline for plan. To plan and carry out especially by artistic arrangement or in a skillful wall. System analysis and design can be characterized as a set of techniques and processes, a community of interests, a culture and an intellectual orientation.

Existing System Analysis:

System Analysis is a detailed study of the various operations performed by a system and their relationships within and outside of the system. Here the key question is- what all problems exist in the present system? What must be done to solve the problem? The analysis begins when a user or manager begins a study of the program using the existing system.

During analysis, data collected on the various files, decision points, and transactions handled by the present system. The commonly used tools in the system are Data Flow Diagram, interviews, etc. Training, experience, and common sense are required for the collection of relevant information needed to develop the system. The success of the system depends largely on how clearly the problem is defined, thoroughly investigated, and properly carried out through the choice of solution. A good analysis model should provide not only the mechanisms of problem understanding but also the framework of the solution. Thus, it should be studied thoroughly by collecting data about the system. Then the proposed system should be analyzed thoroughly in accordance with the needs.

System analysis can be categorized into four parts.

- System planning and initial investigation
- Information Gathering
- Applying analysis tools for structured analysis
- Feasibility Study
- Cost/ Benefit analysis

- **Reduced Risk of Overselling:** Inventory management helps track what's in stock and what's on backorder, so you don't oversell products.
- **Cost Savings:** Stock costs money until it sells. Carrying costs include storage handling and transportation fees, insurance and employee salaries. Inventory is also at risk of theft, loss from natural disasters or obsolescence.
- **Avoiding Stockouts and Excess Stock:** Better planning and management helps a business minimize the number of days, if any, that an item is out of stock *and* avoid carrying too much inventory. Learn more about solving for stockouts in our "Essential Guide to Inventory Control."
- **Greater Insights:** With inventory tracking and stock control, you can also easily spot sales trends or track recalled products or expiry dates.
- **Better Terms with Vendors and Suppliers:** Inventory management also provides insights about which products sell and in what volume. Use that knowledge as leverage to negotiate better prices and terms with suppliers.
- **More Productivity:** Good inventory management solutions save time that could be spent on other activities.
- **A More Organized Warehouse:** An efficient warehouse with items organized based on demand, which items are often sold together and other factors reduces labor costs and speeds order fulfillment.
- **Better Customer Experience:** Customers that receive what they order on time are more loyal.

Proposed system:

Our proposed system is the Store Management System which will manage the tasks of the shop and its marketing.

This system can be used to store the details of the inventory, update the inventory based on the sale details, produce receipts for sales, generate sales and inventory reports periodically, etc. This is one integrated system that contains both the user component (used by salespersons, sales managers inventory managers, etc.) and the admin component (used by the administrators for performing admin level functions such as adding new items to the inventory, changing the price of an item etc.). This system runs on multiple terminals, offers a terminal interface to its users and connects to a common database.

This system will be helpful computerize the scheduled events and also very helpful in calculating the bill without any miscalculation. The reports can be checked depending on by Customers, by Payment Due, by Item, by Days, by Month and by year.

Feasibility Study:

Feasibility analysis begins once the goals are defined. It starts by generating broad possible solutions, which are possible to give an indication of what the new system should look like. This is where creativity and imagination are used. Analysts must think up new ways of doing things- generate new ideas. There is no need to go into the detailed system operation yet. The solution should provide enough information to make reasonable estimates about project cost and give users an indication of how the new system will fit into the organization. It is important not to exert considerable effort at this stage only to find out that the project is not worthwhile or that there is a need significantly change the original goal. Feasibility of a new system means ensuring that the new system, which we are going to implement, is efficient and affordable. There are various types of feasibility to be determined. They are:

1. Operation Feasibility:

An estimate should be made to determine how much effort and care will go into the developing of the system including the training to be given to the user. Usually,

people are reluctant to changes that come in their progression. The computer initialization will certainly affect the turn over, transfer and employee job status. Hence an additional effort is to be made to train and educate the users on the new way of the system.

2. Technical Feasibility:

The main consideration is to be given to the study of available resources of the organization where the software is to be implemented. Here the system analyst evaluates the technical merits of the system giving emphasis on the performance, Reliability, maintainability and productivity.

By taking the consideration before developing the proposed system, the resources availability of the organization was studied. The organization was immense computer facilities equipped with sophisticated machines and the software hence this technically feasible.

3. Economical Feasibility:

Development of this application is highly economically feasible. The only thing to be done is making an environment with an effective supervision. It is cost effective in the sense that has eliminated the paper work completely. The system is also time effective because the calculations are automated which are made at the end of the month or as per the user requirement. Cost benefit analysis is usually performed for this purpose. It is the comparative study of the cost verses the benefit and savings that are expected from the proposed system. Since the organization is well equipped with the required hard ware, the project was found to be economically.

Chapter: 3

Used Tools

Hardware used for store management system

- **PROCESSOR:** Intel P-IV system
- **PROCESSOR SPEED:** 250MHz to 833MHz
- **RAM:** 512MB RAM
- **HARD DISK:** 40GB

Software used for store management system

- **OPERATING SYSTEM:** Windows XP / Vista / 7 / 8.x / 10
- **SOFTWARE:** Code blocks
- **VERSION:** 20.03 -32bit
- **LANGUAGE:** C language

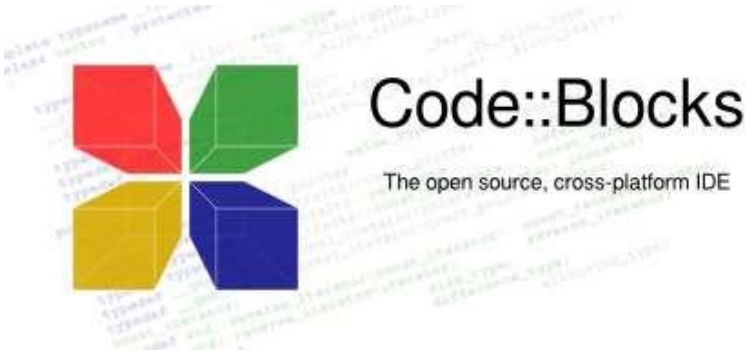
Chapter 4

Used Software and Programming Language

Code::Blocks

Code::Blocks is a free, open-source cross-platform IDE that supports multiple compilers including GCC, Clang and Visual C++. It is developed in C++ using wxWidgets as the GUI toolkit. Using a plugin architecture, its capabilities and features are defined by the provided plugins. Currently, Code::Blocks is oriented towards C, C++, and Fortran. It has a custom build system and optional Make support.

Code::Blocks is being developed for Windows and Linux (the latest macOS version is 13.12 released on 12/26/2013) and has been ported to FreeBSD, OpenBSD and Solaris.



After releasing two release candidate versions, 1.0rc1 on July 25, 2005 and 1.0rc2 on October 25, 2005, instead of making a final release, the project developers started adding many new features, with the final release being repeatedly postponed. Instead, there were nightly builds of the latest SVN version made available on a daily basis.[citation needed] The first stable release was on February 28, 2008, with the version number changed to 8.02. The versioning scheme was changed to that of Ubuntu, with the major and minor number representing the year and month of the release. Version 17.12 is the latest stable release; however, for the

most up-to-date version the user can download the relatively stable nightly build or download the source code from SVN. Jennic Limited distributes a version of Code::Blocks customized to work with its microcontrollers.[Wikipedia]

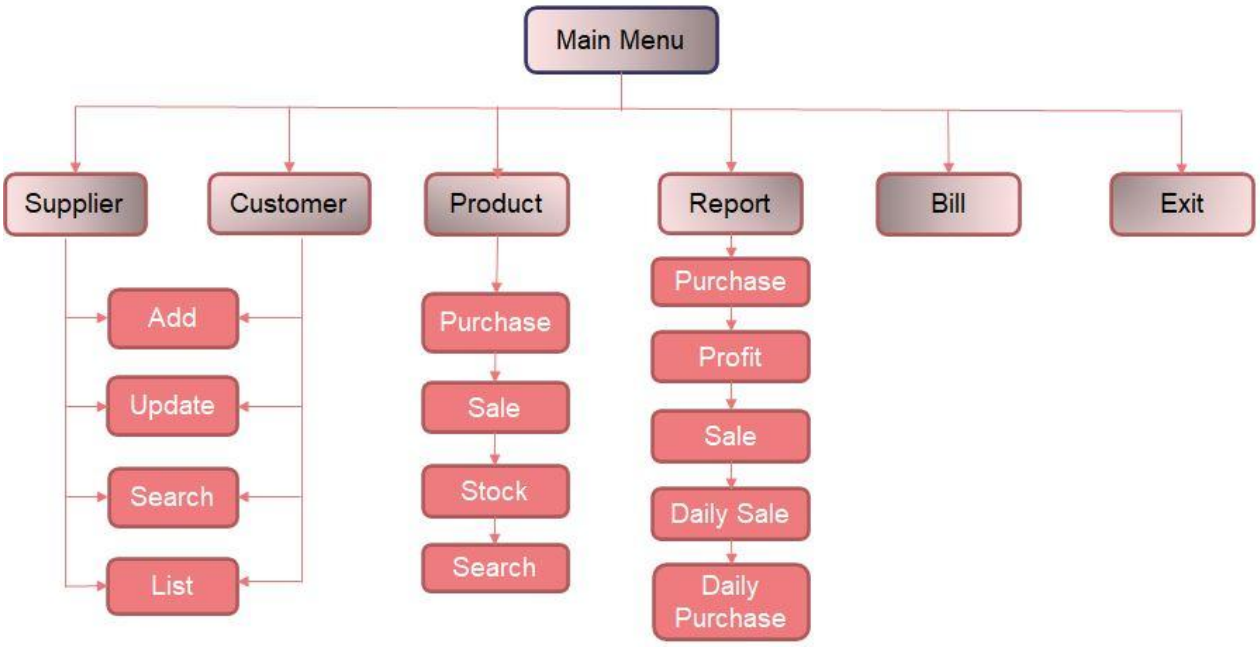
C Language

C is a general-purpose, imperative computer programming language, supporting structured programming, lexical variable scope and recursion, while a static type system prevents many unintended operations. By design, C provides constructs that map efficiently to typical machine instructions, and therefore it has found lasting use in applications that had formerly been coded in assembly language, including operating systems, as well as various application software for computers ranging from supercomputers to embedded systems.

Many later languages have borrowed directly or indirectly from C, including C, C#, Unix's C shell, D, Go, Java, JavaScript, Limbo, LPC, Objective-C, Perl, PHP, Python, Rust, Swift, Verilog and System Verilog (hardware description languages). These languages have drawn many of their control structures and other basic features from C.[Wikipedia]

Chapter 5

Project Design



System over View:

Here, This Department Store Management System is primarily based totally on a idea to offer facts on calculating, adding, viewing goods, and different capabilities too. The admin or consumer is properly aware to the statistics with none strain. This

software actually has a huge scope to decrease mistakes with inside the making of payments and it additionally limits the put off of turning in payments to the customers. This system has the very least risk of records loss and we don't need to fear approximately it being damaged.

Here all module of this:

Welcome Message:

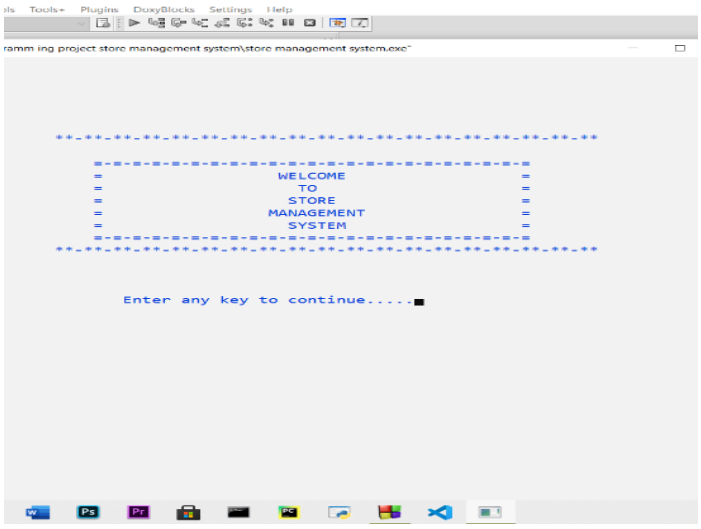


Fig-1: Welcome Message

Welcome to Store Management Systems Project. This module shows us welcome message.

Admin Module:

Login:

Admin will get login with a valid username and password. Admin can view the customer requests. Admin can add the details of the supply forms. Admin views all the customer information. Admin can add the material forms.

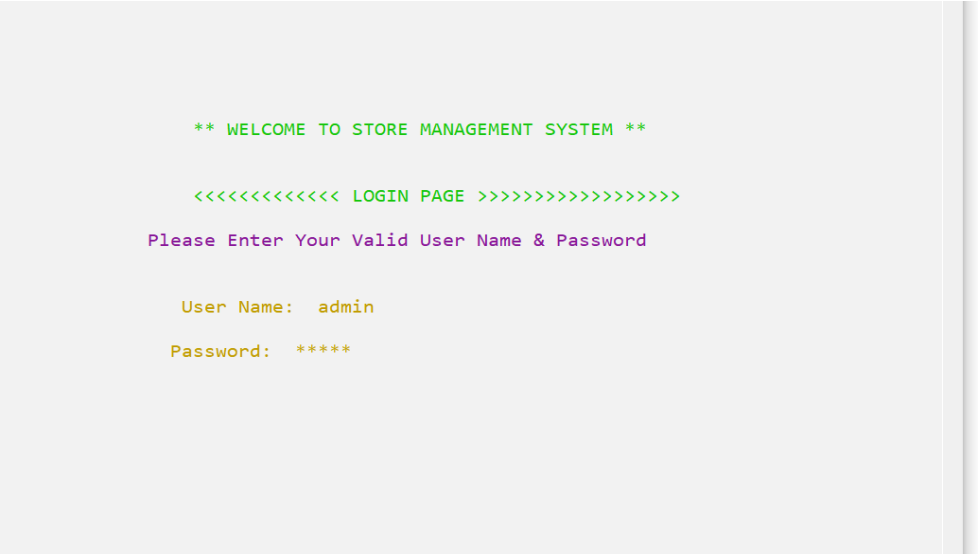


Fig-2: Login

Menu:

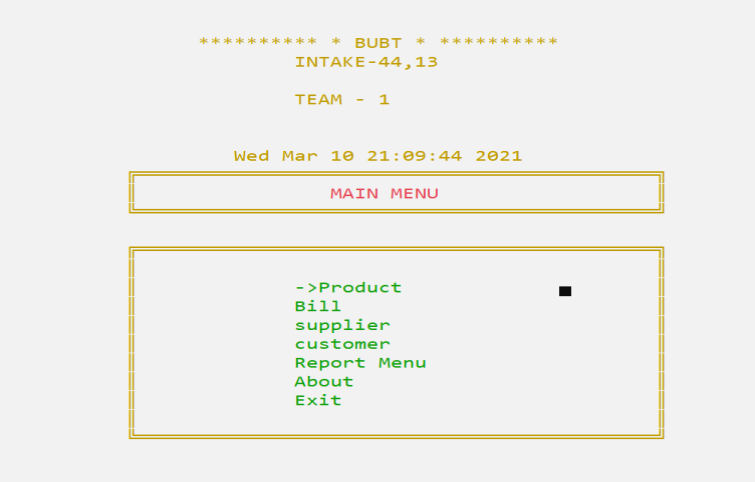


Fig-3: Menu

Product:

In the institution there will be thousands of products.

Fig-4: Product

Add New Product:

Fig-5: Add New Product

Sale Product:

Fig-6: Sale Product

Stock Product:

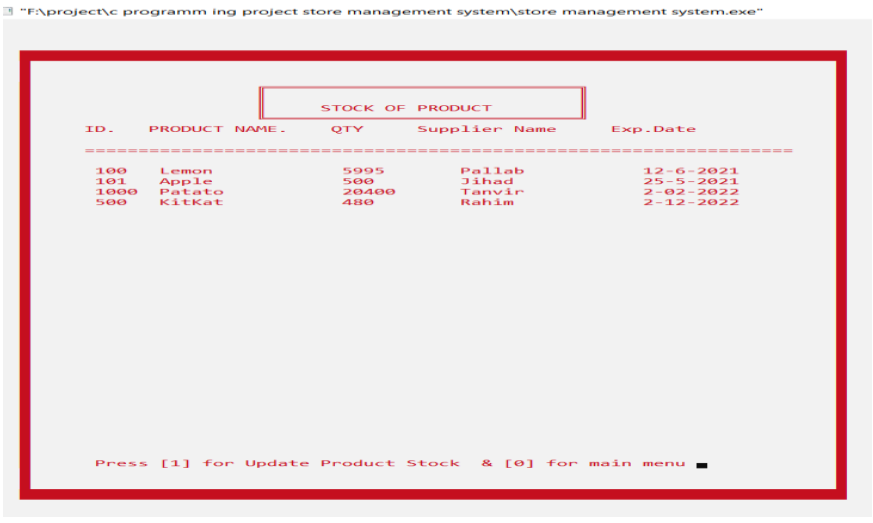


Fig-7: Stock Product

Update Product Quantity:

Fig-8: Update Product Quantity

Search Product:

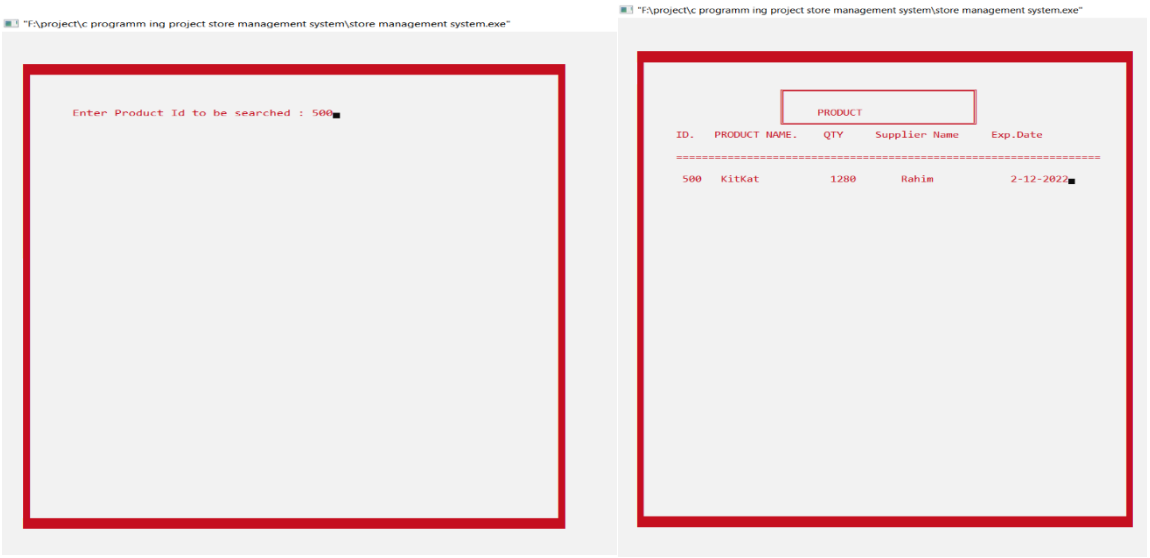


Fig-9: Search Product

Bill :

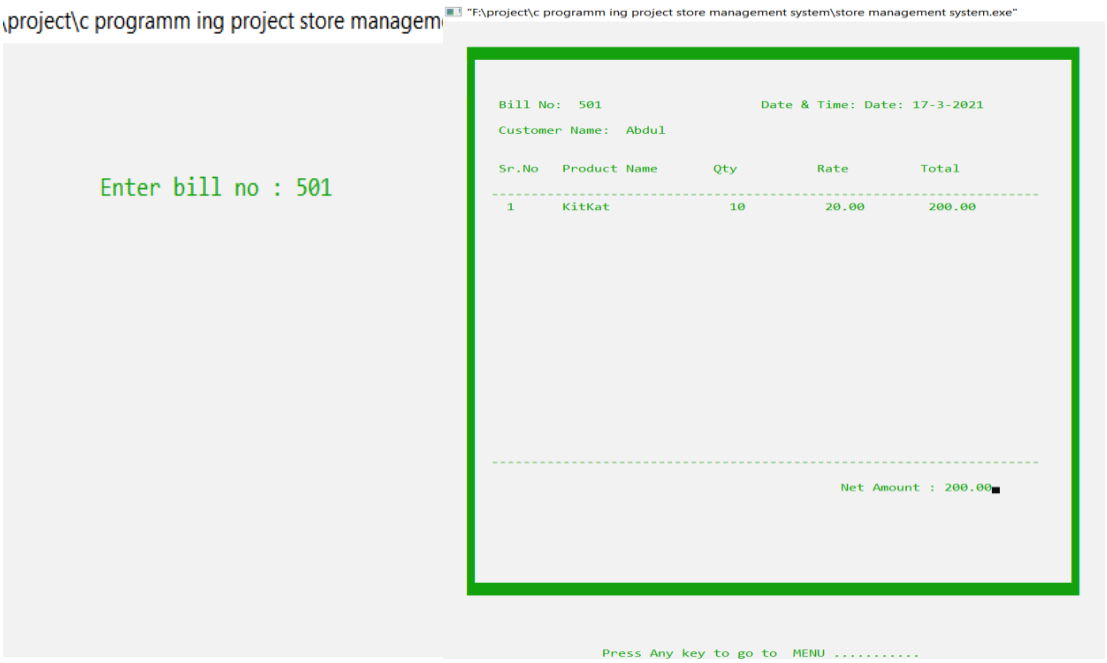


Fig-10: Bill

Supplier Menu:

Fig-11: Supplier Menu

Add Supplier:

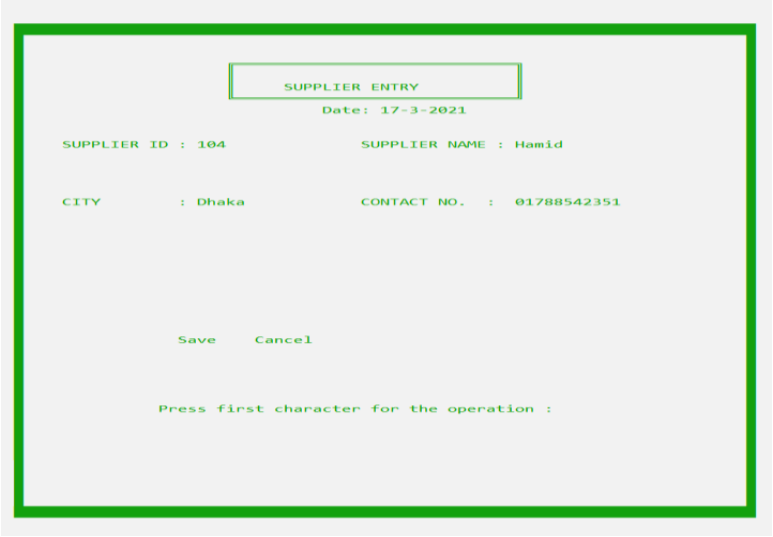


Fig-12: Add Supplier

Search supplier:

Search by ID:

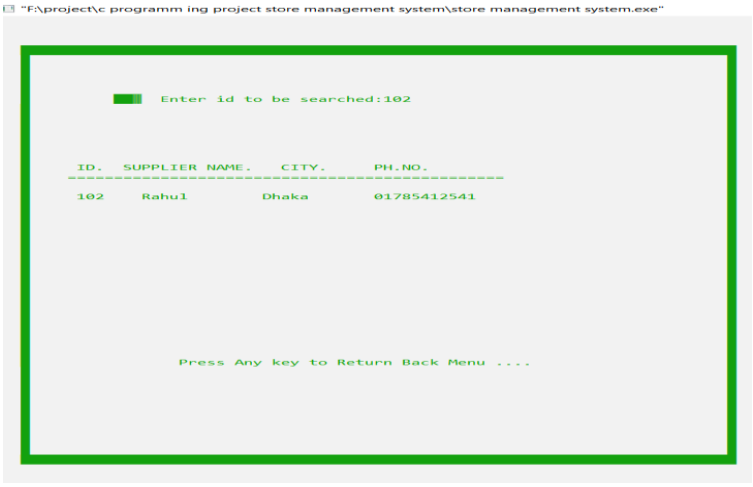


Fig-13: Search by ID

Search by name:

Fig-14: Search by ID

Supplier list:

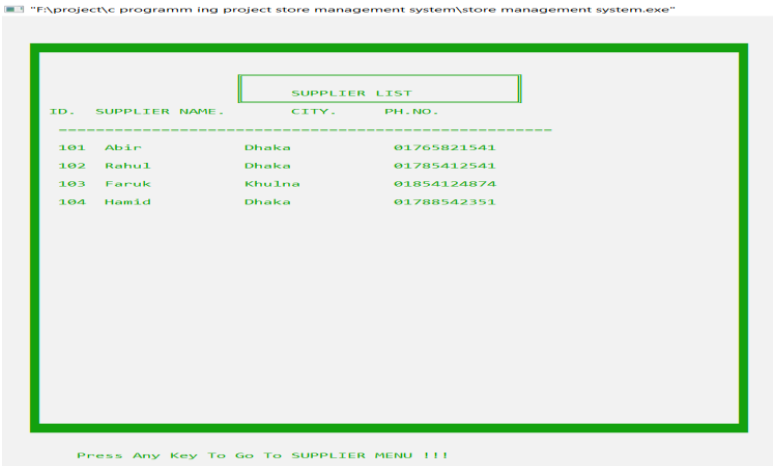


Fig-15: Supplier List

Customer Menu:

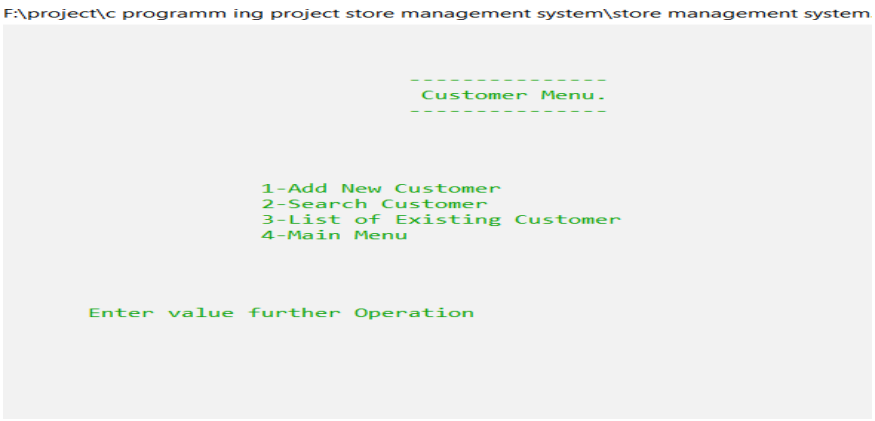


Fig-16: Customer Menu

Add Customer:

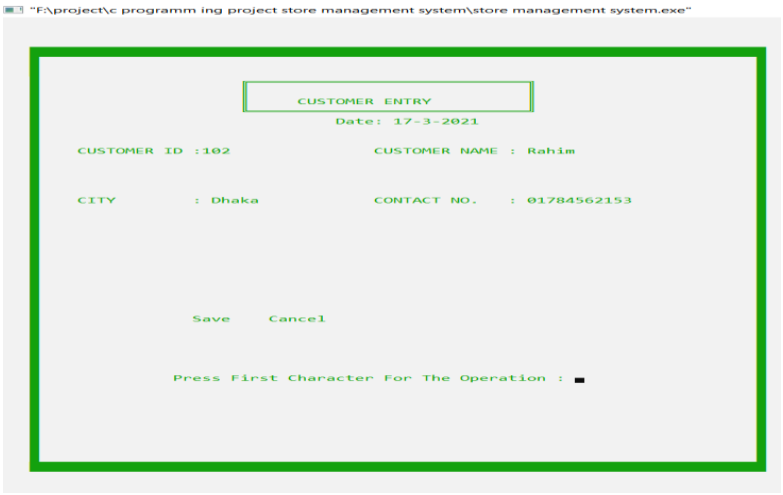


Fig-17: Add Customer

Search Customer:

Search by id:

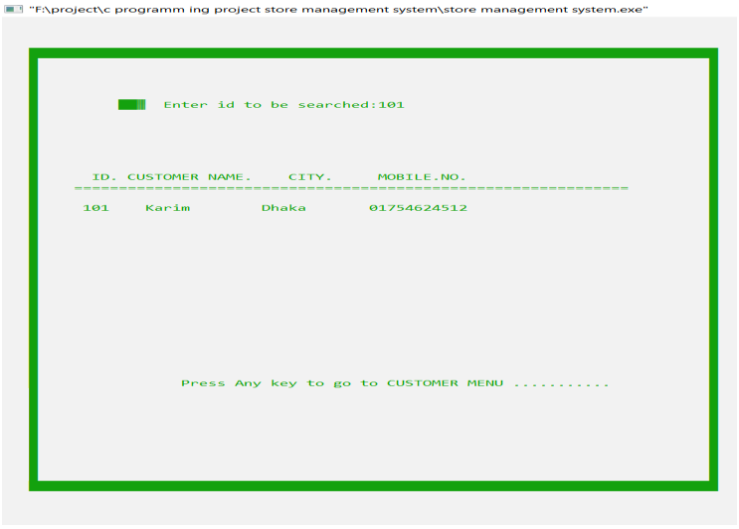


Fig-18: Search by id

Search by name:

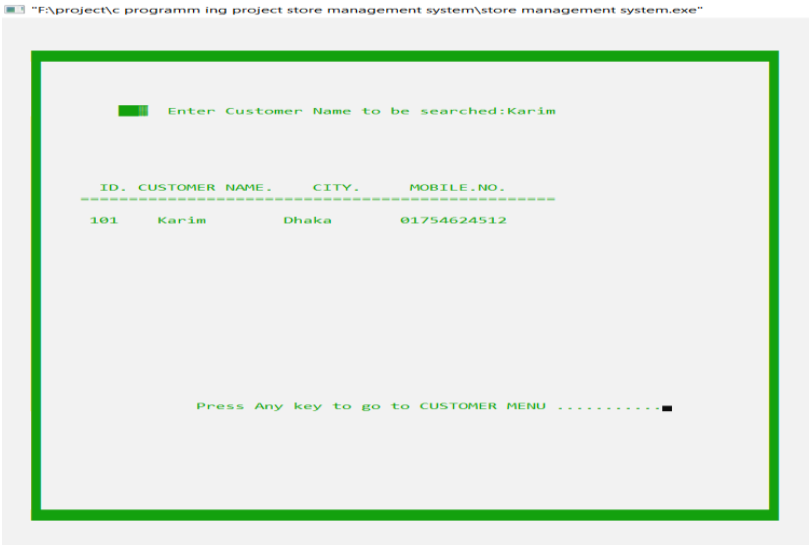


Fig-19: Search by name

Customer List:

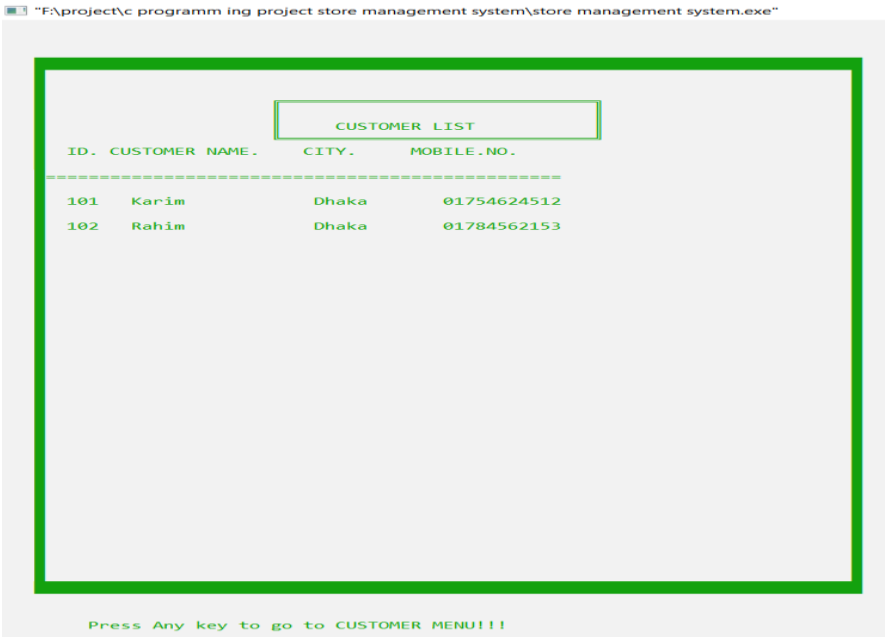


Fig-20: Customer List

Report Menu:

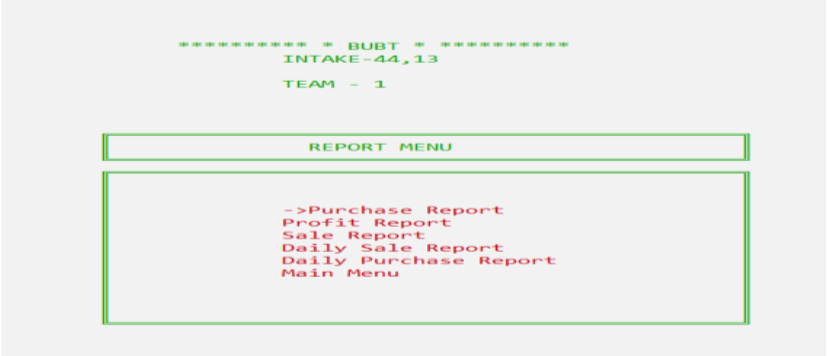


Fig-21: Report Menu

Purchase Report:

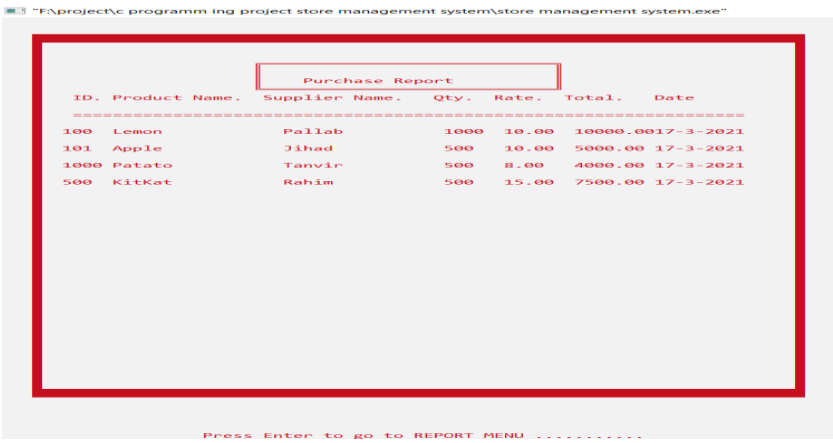


Fig-22: Purchase Report

Profit Report:

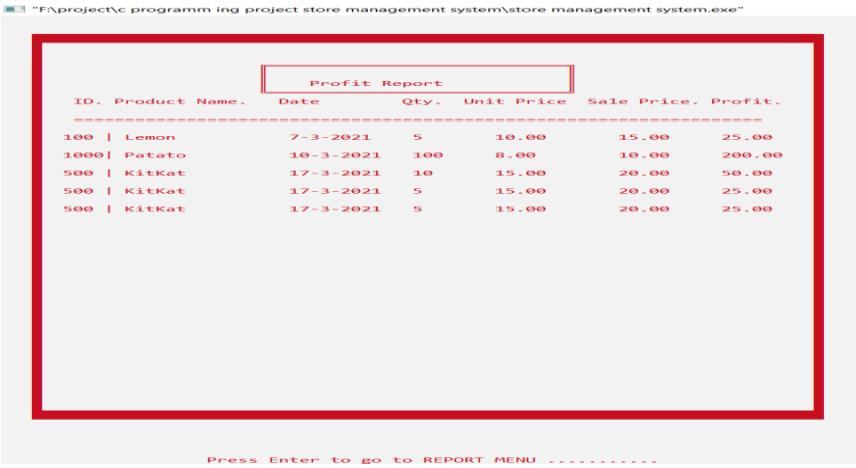


Fig-23: Profit Report

Sale Report:

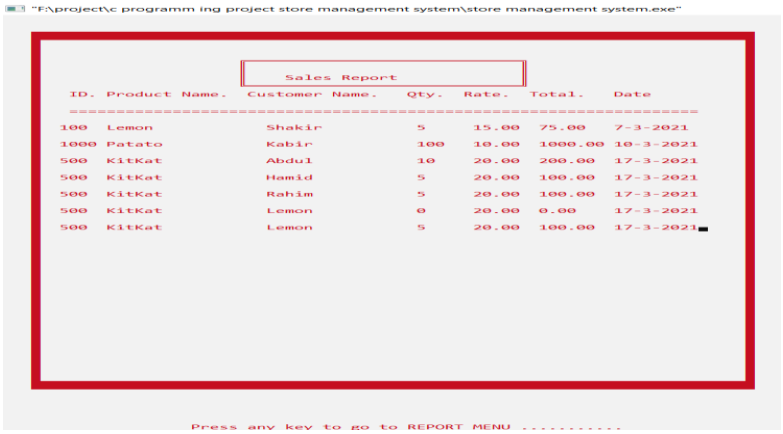


Fig-24: Sale Report

Daily Sale Report:

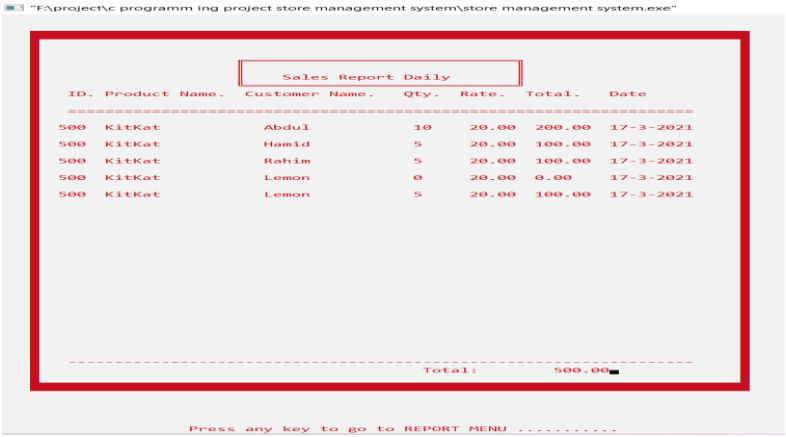


Fig-25: Daily Sale Report

Daily Purchase Report:

Fig-26: Daily Purchase Report

About:

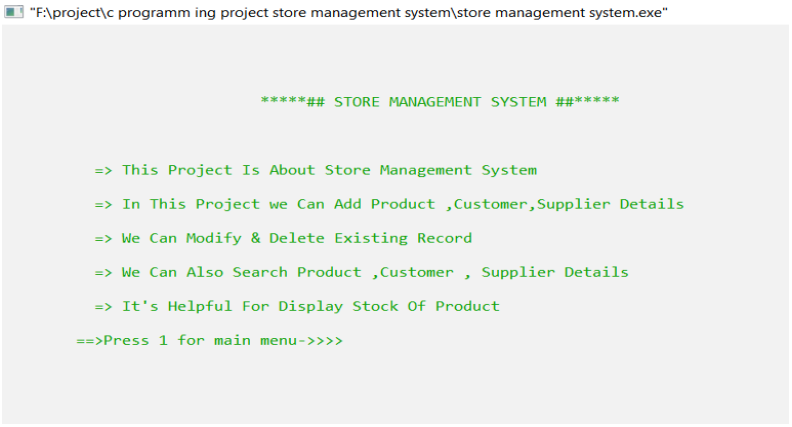


Fig-27: About

Chapter 6

Coding Optimization

Optimization refers to increase in the throughput of the system with minimal use of effort and system resources. It also includes faster response through better system design practices including optimal utilization of code, normalized database structures and their use in the code. The other criteria that ensure the optimization of this software application are enlisted as under

- Use of modular design structure of application development.
- Use of Normalized Database Structures-Database Optimization.
- Use of code modules extensively-Code Optimization.
- Use of minimum number of code lines for maximum processing of input data. Allocating / de-allocating memory for the objects used in the code as and when required. – Garbage collection.
- Re-use of similar input forms/output reports wherever necessary to reduce the overall size of the application.

We find optimal solution of a project that is cost effective as well as time effective. Both are equally important for a project we divide the project into modules so that we can easily understand the project. And also, it will take less time to solve the problems. Modularity is the single attribute of software that allows a program to be intellectually manageable.

Chapter 7

Testing

Testing objectives: Testing is mainly done for rectifying the error from the program that is design for particular problem.

- Testing is a process of executing a program with the intent of finding an error.
- A good test case is one that has a high probability of finding an as-yet UN discovered error.
- A successful test is one that uncovers an as-yet undiscovered error.
- Exhaustive testing is not possible.
- All tests should be traceable to customer requirement.
- Testing Principle: Before doing the testing, some point kept in mind
- Tests should be planned long before testing begins.
- Testing should be begun in "small" and progress toward large.

Testing and Debugging:

After programming the program has many logical errors we test our system program our system does not run successfully and does not achieve the user's requirement. If the user requirement cannot be fulfilled, we use the debugging tools in the project and debug our project in statements by statements and found error and correct the testing process focusing on logic internals of the software, ensuring that all statements have been tested.

Function Testing:

System design may have so many functions. Each program has been defined into number of functions. Each function has its own task. We can each function to perform an accurate result. We must debug each function.

Function is a block of code that performs a particular task, returns a particular value.

Structural Testing:

Each program has a structure, and contains the function, variable, controls, statement, decision-making loops. We can test program structure these are defined properly in our program. So, the programmer set the structure of the program.

Condition Testing: Condition Testing is a test case design method that exercises the logical conditions contained in a program module.

Loop Testing: Loops are mainly used in all the module of the project, there are different type of loops in the project that I use.

Simple loops: In the simple loop in which the statement is executed inside the single loop.

Concatenated loops: Concatenated loops can be tested using the approach defined for simple loops, if each of the loops is independent of the other. However, if two loops are concatenated and the loop counter for loop 1 is used as the initial value for loop 2 then the loop are not independent. When the loops are not independent, the approach applied to nested loops is recommended.

Chapter 8

Uses Function :

```
void cur(int);
void departmentbill();
void department_menu();
void view(record *,int,int);
void window_screen(int,int,int,int);
void view_concern();
void department_search();
void h_light(int,int);
void exit();
int getcust_id();
int getsupp_id();
void welcome();
void main_menu();
void main_box();
void box1();
void wbox();
void bill();
void about();
void product();
void pro_sale();
void stock();
void update_stock();
void pro_entry();
void pro_search();
void reminder();
```

```
void supplier();
void supp_entry();
void supp_list();
void sup_update();
void search();
void search_id();
void search_name();
void customer();
void cust_search();
void search_cid();
void search_cname();
void cust_entry();
void cust_list();
void cust_update();
void report_menu();
void report();
void sale_rpt();
void sale_rpt_daily();
void profit_rpt();
void pur_rpt();
void pur_rpt_daily();
```

Chapter 9

Conclusion

After we have completed the project, we are sure the problems in the existing system would overcome the “STORE MANAGEMENT SYSTEM” process made computerized to reduce human errors and to increase the efficiency. The main focus of this project is to lessen human efforts.
The computerization of the Store Management System will not only improve efficiency but will also reduce human stress thereby indirectly improving human resources.

Chapter 10

REFRENCES

Here are some website links which we used for our project.

- https://www.geeksforgeeks.org/
- https://github.com/
- https://www.codewithc.com/
- https://code-projects.org
- https://www.wikipedia.org/
- https://www.google.com/
- https://www.geeksforgeeks.org/
- https://www.lovelycoding.org/
- http://edujournal.in/
- https://www.w3schools.com/