

PROGRAMMING FUNDAMENTALS

PROJECT REPORT **ON** **PHARMACY** **MANAGEMENT SYSTEM**

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INTRODUCTION:

This project concerns developing a Pharmacy Management System that will be used for retail and wholesale pharmacies and pharmaceutical shops. This management system tends to facilitate the user with different features to make their work more efficient. Major features of this management system includes add, search, modify, view and delete records of both customer and pharmaceutical products. It also enables users to generate bills with real time stock management and generate daily reports for sales at the end of the day. The management system is focused to be used by pharmaceutical shops or pharmacies owners.

OBJECTIVES:

- Pharmacy Management System that keeps all records of medicines and customers saved.
- An easy way to find any record by simply entering the name of customer and medicines.
- Can maintain the data of customers or medicines.
- Other important functions, such as listing, searching, deleting, adding data to the system, are made easier by using this program.
- The bill will be auto-generated and calculated.
- A15% discount will be given to those customers who are already present in the record.
- System will also help user to identify whether the medicine is present in stock or not with its quantity

Key Features:

- User:
 - Store owner
- Customer Records:
 - Add customer records
 - Search customer records
 - Modify customer records
 - Delete customer records
 - View customer record
- Medicine stock Management
 - Add stock
 - Search stock
 - Modify stock
 - Delete stock
 - View stock
- Generate bills
- Generate daily reports

Background (Research And Project Selection):

Pharmacy management system is a system that consists of data entry, retrieval and monitoring stock, sale, customer records, and determination of minimum quantity of each drug. String searching technique also applied in this system. This system always checks the quantity of pharmaceutical products and will be triggered to remind the salesman if the certain of the drugs reached the minimum quantity. This system enables administrators to control and monitor the drugs stock effectively. Due to the size and quantity service of the pharmacy, the pharmacy has a very large customer base. The number of customers is quickly increasing due to the increase of demand for drugs in many areas. This situation makes the pharmacist to be busy and use a lot of time to manage and control their business records. Meanwhile the pharmacist has to insure satisfaction in services to keep their records effectively at a reasonable time. The modules involved in this project are add, search, view, modify and delete records modules of both customer and pharmaceutical products, bill generator module and daily report generator module.

Problem Analysis:

Pharmacy is a very large industry and improving performance and efficiency in pharmacy shops is a major goal of the Pharmacy Management System. As day by day through this course of pandemic supply and demand for medicines and pharmaceutical products has greatly increased and pharmacies have to meet this requirement efficiently. We have seen many pharmaceutical shops using manual methods of writing on paper to keep track of customer and product records, create bills and by the end of the day check stock of drugs and pharmaceutical products and generate daily sales reports which can greatly reduce efficiency and effectiveness. To summarize the problems which lead us to design and develop this management system are as follows:

- There is no effectively managed information
- Discrepancy of stock items.
- Hard to determine stock balance

Methodology:

A methodology is the combination of logically related methods and step by step techniques for successful planning, control and delivery of project. We have use the following methods in this project.

1. Information Gathering
2. Planning
3. Analysis
4. Design

Information Gathering:

One of the information gathering techniques I have used is: Brainstorming: I have used this method to get an idea of this project. All ideas are generated with the help of a facilitator through an open discussion and mass interviewing techniques. Commonly, the brainstorming technique has been conducted during a scheduled meeting with peers, individual brainstorming, and even at an informal meeting.

Planning :

It is the process of identifying problems, opportunities, and objectives. This phase required the analysts to look honestly at what is occurring in a business. Then, together with other organizational members, the analyst pinpoints problems. Identifying objectives is also an important component of the first phase. The analyst first discovered what the business is trying to do. Then the analyst was able to see whether some aspect of information systems applications can help the business reach its objectives by addressing specific problems or opportunities.

Analysis:

It is a process of collecting factual data, understanding the processes involved, identifying problems and recommending feasible suggestions for improving the system functioning. This involves studying the business processes, gathering operational data, understanding the information flow, finding out bottlenecks and evolving solutions for overcoming the weaknesses of the system so as to achieve the organizational goals. System Analysis also includes subdividing of complex processes involving the entire system, identification of data stores and manual processes.

Design:

It is the most crucial phase in the developments of a system. The logical system design arrived at as a result of systems analysis is converted into physical system design. We have used C coding to design the system using structures, iteration, pointers and filing.

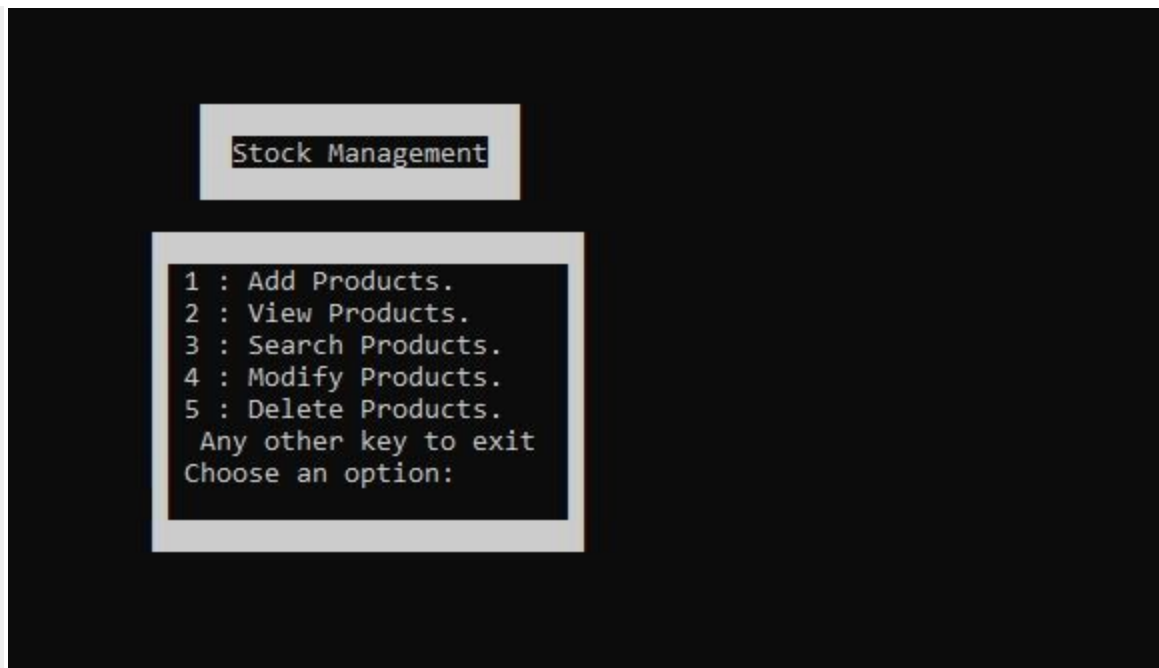
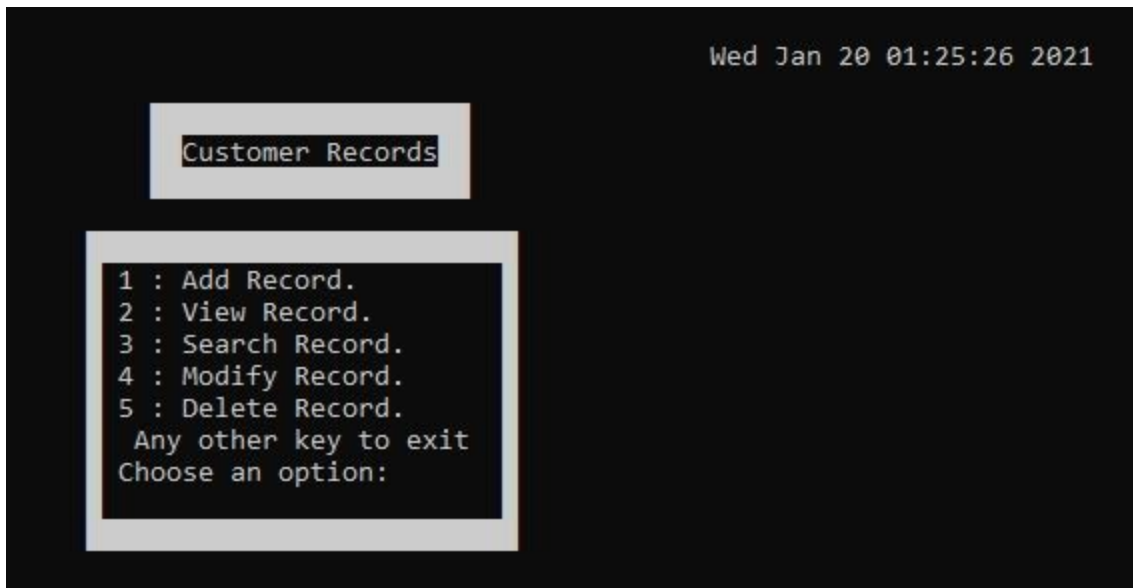
Implementation:

The system design needed to be implemented to make it a workable system. This demands the coding of design into computer understandable language example programming language. This is also called the programming phase in which the programmer converts the program specifications into computer instructions, which we refer to as programs. It is an important stage where the defined procedures are transformed into control specifications by the help of a computer language. The language used will be C and for IDE Dev-C++ will primarily be used. Filing will be used in order to store and retrieve the data. We will use functions, pass by reference, loops, conditions, pointers, structures, arrays and filing where needed. This tools and techniques will be used to design and implement this whole Pharmacy Management System.

Results:

The results were as expected, the Pharmacy Management System has proven to improve efficiency and effectiveness of pharmaceutical shops and provide a more feasible environment to manage a lot of functionalities in a small amount of time. It provide easy to understand user interface and manage records and stock management with efficiency and lessen time consumption with automatically generating daily reports by just single input. We have insert some images of our end product of project:

Menu screens



Add functions

```
Enter Name: Ahmed  
Enter age: 19  
Enter Phone Number: 090078601
```

```
Enter Product Name: Xanax  
Enter Product Company: Pfizer  
Enter Product Price: 28  
Enter Product Quantity: 50
```

View functions

```
Product Name: Panadol  
Company Name: Abbott  
Product Price: 12  
Product Quantity: 30  
  
Product Name: Azomax  
Company Name: Sandoz  
Product Price: 23  
Product Quantity: 51  
  
Product Name: Aspirin  
Company Name: Bayer  
Product Price: 23  
Product Quantity: 50  
  
Press any key to go back.
```

```
Name: Asad  
Age: 19  
Phone Number: 123  
  
Name: Ahmed  
Age: 19  
Phone Number: 090078601  
  
Press any key to go back.
```

Search functions

```
Which record do u want to search for?  
Enter the Product Name:xanax
```

```
Product Name: Xanax  
Company Name: Pfizer  
Product Price: 28  
Product Quantity: 50
```

```
Press any key to go back.
```

```
Which record do u want to search for?  
Enter the name of the customer:ahmed
```

```
Name: Ahmed  
Age: 19  
Phone Number: 090078601
```

```
Press any key to go back.
```

Modify functions

```
Which record do u want to modify?  
Enter the name of the customer:ahmed
```

```
Enter Name: Alishah
```

```
Enter age: 21
```

```
Enter Phone Number: 332145
```

```
Record Modified Successfully!  
Press any key to go back.
```

```
Which record do u want to modify?  
Enter the Product Name:xanax
```

```
Product Name: Xanax
```

```
Company Name: Pfizer
```

```
Product Price: 28
```

```
Product Quantity: 50
```

```
Enter Product Name: Fexet
```

```
Enter Company Name: Getz
```

```
Enter Price: 30
```

```
Enter Quantity: 20
```

```
Record Modified Successfully!  
Press any key to go back.
```

Delete functions

```
Which record do u want to delete?  
Enter the name of the customer:aishah  
  
Record Deleted Successfully!  
Press any key to go back.
```

```
Which record do u want to delete?  
Enter the Product Name:fexet  
  
Record Deleted Successfully!  
Press any key to go back.
```

Billing and daily report

```
Wed Jan 20 02:41:18 2021

Members get 15% off their total order !

Is this the first transaction of the day (Y/N) ?Y

Enter Customer Name: Asad
Enter the Product Name:Panadol
Enter Quantity: 3

Product Name: Panadol   Product Price: PKR 12   Quantity: 3
Do you want to continue?(Y/N) Y
Enter the Product Name:aspirin
Enter Quantity: 5

Product Name: Aspirin   Product Price: PKR 23   Quantity: 5
Do you want to continue?(Y/N) N

Membership discount of 15% applied
Gross Total: PKR 128.35

Press any key to go back.
```

```

Daily Report

If this is the end of the day here is your daily report:
Updated Inventory:

Product Name: Panadol
Company Name: Abbott
Product Price: 12
Product Quantity: 27

Product Name: Azomax
Company Name: Sandoz
Product Price: 23
Product Quantity: 51

Product Name: Aspirin
Company Name: Bayer
Product Price: 23
Product Quantity: 45

Total Sales for the day: PKR 128.350

Press any key to go back.
```

Conclusion:

Pharmacy management system is actually a software which handles the essential data and saves the data and actually about the database of a pharmacy and its management. This software helps in effective management of the pharmaceutical store or shop. It provides the statistics about medicine or drugs which are in stocks which data can also be updated and edited. It works as per the requirement of the user and have options accordingly. It allows users to place in stock and for sales transactions. This software also has the ability to view daily sales reports etc. There are other functions like managing customers and products details available too. The main purpose is effectively and easily handling pharmacy data and its management.