



Daffodil
International
University

Project Report

- **Project Title:** Medical Shop Management
- **Subtitle:** Pharmacy Pro V1
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Executive Summary

This project report details the development of a pharmacy application in C. The purpose of the application is to streamline pharmacy operations, including registration, login, medicine handling, memo creation, and various searches. Key features include secure registration, comprehensive search options, and an intuitive user interface. The project successfully implemented all intended functionalities, demonstrating significant improvements in pharmacy management efficiency.

Introduction

Background

Pharmacies require efficient management systems to handle various operations such as inventory management, sales, and customer service. Traditional methods often lead to inefficiencies and errors.

Purpose

This project aims to develop a robust pharmacy management application to enhance operational efficiency, improve security, and ensure accurate record-keeping.

Problem Statement

The primary issue addressed by this project is the inefficiency and potential for error in managing pharmacy operations manually. There is a need for an automated system to streamline processes, ensure data accuracy, and enhance security.

Scope

The project focuses on developing a comprehensive management system for pharmacies, including functionalities such as user registration, secure login, medicine inventory management, memo creation, and various searches. The project does not cover aspects such as online sales or integration with external systems.

Objectives

Primary Objective

To develop a fully functional pharmacy management application in C.

Secondary Objectives

- Ensure secure user registration and login.
- Enable efficient medicine inventory management.
- Provide robust search functionalities for branches, doctors, ambulances, hospitals, and salesmen.
- Facilitate easy memo creation and retrieval.

Functional Requirements

1. **User Registration:** New salesmen can register using a secret code for security.
2. **User Login:** Users can log in with a valid username and password.
3. **Medicine Management:** Search for and add new medicines to the inventory.
4. **Memo Handling:** Create new memos and search for previous memos by phone number.
5. **Search Functions:** Search for branches, doctors, ambulances, hospitals, and salesmen by various criteria.
6. **Logout:** Users can securely log out and return to the main interface.
7. **Exit:** Users can exit the application from any interface.

Non-Functional Requirements

1. **Performance:** The system must respond quickly to user inputs and process requests efficiently.
2. **Security:** The application must ensure secure data handling, particularly during registration and login.
3. **Usability:** The interface should be intuitive and easy to navigate.
4. **Reliability:** The system should operate consistently without failures.

Software Requirements Analysis

Requirement Elicitation

Requirements were gathered through interviews with pharmacy staff and surveys to understand the needs and challenges faced in daily operations.

Requirement Analysis

The gathered requirements were analyzed and prioritized based on their importance and feasibility.

Requirement Specification

Detailed documentation of both functional and non-functional requirements was created to guide the development process.

Requirement Validation

The requirements were validated through stakeholder reviews and feedback sessions to ensure they meet the needs of the users.

Project Plan

Timeline

A timeline was created outlining the phases of the project, including requirement gathering, design, implementation, testing, and deployment.

Resources

- **Personnel:** Development team consisting of 3 members.
- **Equipment:** Computers, development tools (e.g. Code Blocks Ccompiler), and testing environments.
- **Budget:** Allocated funds for hardware and software resources.

Risk Management

Potential risks such as scope creep, technical challenges, and timeline delays were identified and mitigation strategies were developed.

Implementation

Process

The implementation process followed a structured approach:

1. Setting up the development environment.
2. Coding the user registration and login modules.
3. Developing the medicine management and memo handling functionalities.
4. Implementing the search functions.
5. Testing each module thoroughly before integration.

Challenges

Challenges included handling secure data transmission and ensuring the application was user-friendly. These were addressed through iterative testing and user feedback.

Adjustments

Minor adjustments were made to the user interface based on initial user feedback to improve usability.

Results and Analysis

Functionality

All intended functionalities were implemented successfully. The system allows secure registration, efficient medicine management, and comprehensive search options.

Testing

Extensive testing was conducted to ensure all modules work correctly. User acceptance testing was also performed to validate the application's usability and performance.

Discussion

Findings

The project significantly improved pharmacy management efficiency by automating key processes and enhancing data accuracy.

Comparison

The implemented system performed better than traditional manual methods, reducing the time and effort required for daily operations.

Limitations

One limitation was the absence of an online integration feature, which could be considered for future enhancements.

Conclusion

Summary

The pharmacy application successfully addressed the inefficiencies in manual pharmacy management by providing a secure, efficient, and user-friendly solution.

Implications

The project's success demonstrates the potential for similar applications to enhance operational efficiency in other small to medium-sized enterprises.

Final Thoughts

Developing this application provided valuable insights into the challenges and solutions in building efficient management systems.

Recommendations

Actions

- Implement additional features such as online sales and integration with external systems.
- Conduct regular updates and maintenance to ensure continued performance and security.

Future Work

Future projects could focus on extending the application's capabilities to include mobile access and advanced analytics for inventory management.

Project Code and Screenshot

Code :

```
#ifndef MAINMAIN_H_INCLUDED

#define MAINMAIN_H_INCLUDED

void mainmain()

{

    main_menu();

    printf("\n\n");

    printf("1. Register\n");

    printf("2. Log In\n");

    printf("3. Exit\n");

    int number;

    printf("\n\nEnter Your Choice : ");

    scanf("%d",&number);

    switch (number)

    {

        case 1:

            system("CLS");
```

```
register_design();
```

```
registers();
```

```
break;
```

```
case 2:
```

```
system("CLS");
```

```
login_i_design();
```

```
login();
```

```
break;
```

```
case 3:
```

```
system("CLS");
```

```
exiting_menu();
```

```
exiting();
```

```
exit(0);
```

```
break;
```

```
}
```

```
}
```

```
#endif
```

```
#ifndef HOMEPAGE_H_INCLUDED
#define HOMEPAGE_H_INCLUDED

#include<string.h>
#include<conio.h>
#include<unistd.h>
#include<string.h>
#include "loading.h"
#include "opening.h"
#include "menu_design.h"
#include "homepage.h"
#include "add_medicine.h"
#include "ambulance.h"
#include "hospital.h"

void homepage()
{
    system("CLS");

    homepage_menu();

    printf("\n\n\n~~~~~ Our Services ~~~~~");

    printf("\n\n");
```

```
printf("[1] Prescription\n");

printf("[2] Medicine Handle\n");

printf("[3] Searching Option\n");

printf("[4] About Pharmacy\n");

printf("[5] Log Out\n");

printf("[6] Exit");

printf("\n\nEnter Your Choice : ");


int opt,option,option4,option1,option2,option3;


scanf("%d",&option);

system("CLS");


switch (option)
{

//case 1 start

    case 1:

        prescription_design();

        printf("\n\t[1] Prescription Memo Generator");

        printf("\n\t[2] Memo History\n");

        printf("\n\tEnter Your Choice : ");
```

```
scanf("%d",&opt);
```

```
switch (opt)
```

```
{
```

```
    case 1:
```

```
        system("CLS");
```

```
        memo_design();
```

```
        prescription();
```

```
        printf("\n\tPress any key to Home Page--->.....");
```

```
        getch();
```

```
        system("CLS");
```

```
        loading_homepage();
```

```
        homepage();
```

```
        break;
```

```
    case 2:
```

```
        system("CLS");
```

```
        history_design();
```

```
        memo_history();
```

```
        printf("\n\n\tPress any key to Home Page--->.....");
```

```
        getch();
```

```
        system("CLS");

        loading_homepage();

        homepage();

        break;

    }

    break;

//case 2 start
case 2:

    system("CLS");

    medi_design();

    printf("\n\t[1] Search Medicin");

    printf("\n\t[2] Add Medicine");

    //printf("\n\t[3] Delete Medicine\n");

    printf("\n\tEnter Your Choice : ");

    scanf("%d",&option4);

    switch(option4)

    {

        case 1:

            system("CLS");

            search_medicine_design();
```

```
name_main();
```

```
printf("\n\n\n\tPress any key to Home Page--->.....");
```

```
getch();
```

```
system("CLS");
```

```
loading_homepage();
```

```
homepage();
```

```
break;
```

case 2:

```
system("CLS");
```

```
add_medicine_design();
```

```
add_medicine();
```

```
printf("\n\tPress any key to Home Page--->.....");
```

```
getch();
```

```
system("CLS");
```

```
loading_homepage();
```

```
homepage();
```

```
break;
```

```
}
```

case 3:

```
system("CLS");  
searching_type_design();  
printf("\n\t[1] Search Branch");  
printf("\n\t[2] Search Doctor");  
printf("\n\t[3] Search Ambulance");  
printf("\n\t[4] Search Hospital");  
printf("\n\t[5] Search Salesman\n");  
printf("\n\tEnter Your Choice : ");  
scanf("%d",&option3);
```

```
switch (option3)
```

```
{
```

case 1:

```
system("CLS");  
branch_design();  
branch_main();
```



```
printf("\n\tPress any key to Home Page--->.....");
```

```
getch();
```

```
system("CLS");
```

```
loading_homepage();
```

```
homepage();
```

```
break;
```

case 2:

```
system("CLS");
```

```
doctor_design();
```

```
doctor_main();
```

```
printf("\n\tPress any key to Home Page--->.....");
```

```
getch();
```

```
system("CLS");
```

```
loading_homepage();
```

```
homepage();
```

```
break;
```

```
case 3:
```

```
system("CLS");
```

```
ambulance_design();
```

```
ambulance_main();
```

```
printf("\n\tPress any key to Home Page--->.....");
```

```
getch();
```

```
system("CLS");
```

```
loading_homepage();
```

```
homepage();
```

```
break;
```

```
case 4:
```

```
system("CLS");
```

```
hospital_design();
```

```
hospital_main();
```

```
printf("\n\tPress any key to Home Page--->.....");  
  
getch();  
  
system("CLS");  
  
loading_homepage();  
  
homepage();  
  
  
break;
```

case 5:

```
system("CLS");  
  
salesman_design();  
  
printf("\n\t[1] Search By Name");  
  
printf("\n\t[2] Search By Phone Number\n");  
  
printf("\n\n\tEnter Your Choice : ");  
  
scanf("%d",&option2);
```

```
switch (option2)  
{
```

case 1:

```
system("CLS");  
  
salesman_design();
```

>.....");

```
name_salesman_main();
```

```
printf("\n\tPress any key to Home Page---
```

```
getch();
```

```
system("CLS");
```

```
loading_homepage();
```

```
homepage();
```

```
break;
```

case 2:

```
system("CLS");
```

```
salesman_design();
```

```
phone_salesman_main();
```

>.....");

```
printf("\n\tPress any key to Home Page---
```

```
getch();
```

```
system("CLS");
```

```
loading_homepage();
```

```
homepage();
```

```
break;
```

```
break;
```

```
break;
```

case 4:

```
system("cls");
```

```
printf("\n\n\t\t\t*-*-*-*-*-*---Black Thunder Drug House---
*-*-*-*-*-*\n\n");
```

```
printf("\t\t\t Owner      : Golam Md Rabby Khan\n");
```

```
printf("\t\t\t Address      : Sena Shopping Complex, Savar, Dhaka\n");
```

```
printf("\t\t\t Phone\t\t\t : +880 1611 135313\n");
```

```
printf("\t\t\t Total Salesman : 03\n");
```

```
printf("\t\t Website      : www.black_thunder_drug_house.com\n\n\n");
```

```
printf("\t\t\t\t--Thank You For Knowing About Us--");
```

```
-->.....");
```

```
printf("\n\n\n\n\n\n\n\n\n\n\t\t\t\t\tPress any key to Home Page-
```

```
getch();
```

```
system("CLS");  
loading_homepage();  
homepage();
```

```
break;
```

```
case 5:
```

```
mainmain();  
break;
```

```
case 6:
```

```
system("CLS");  
exiting_menu();  
exiting();  
  
exit(0);  
break;
```

```
}
```

```
}
```

```
#endif
```

```
#include<stdio.h>

#include<conio.h>

#include<string.h>

#include<unistd.h>

#include<stdlib.h>

#include "loading.h"

#include "opening.h"

#include "mainmain.h"

#include "salesman.h"

#include "homepage.h"

#include "menu_design.h"

#include "add_medicine.h"

#include "login.h"

#include "doctors.h"

#include "branch.h"

#include "name_search.h"

#include "ambulance.h"

#include "hospital.h"

#include "prescription.h"

#include "memo_history.h"
```

```
int main()
```

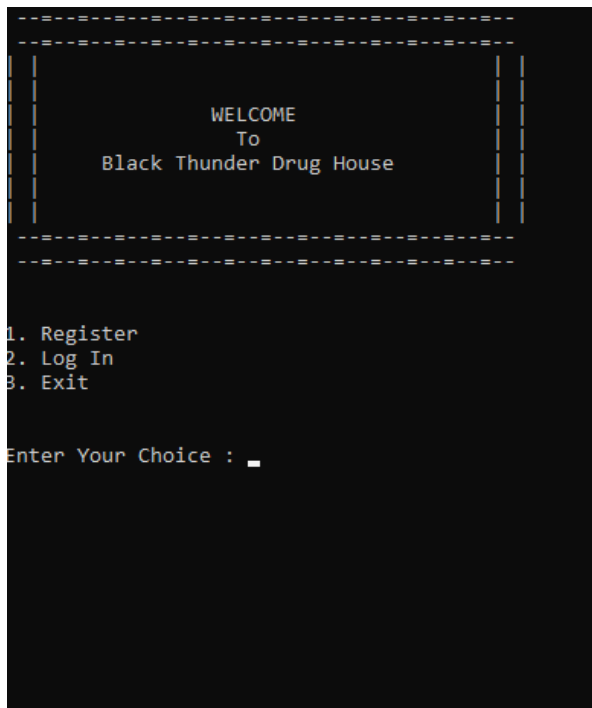
```
{  
  
    opening();  
  
    sleep(3);  
  
    system("CLS");  
  
    mainmain();  
  
    getch();  
}
```


Screen Shote :

Starting Interface:



Main 1st Interface:



Register Interface:

```
*****
*****
**                                     **
**                               Register                               **
**                                     **
*****

-- A Secret Code To Register Your Account --

Enter The Secret Code : _
```

Log In Interface:

```
*****
*****
**                                     **
**                               Log In                               **
**                                     **
*****

Your User ID :
```

Log In Successful:

```
<< << << - Black Thunder Drug House - >> >> >>

--- Log In Successful ---
██████████
```

Main Service Interface:

```
-----  
-----  
-----  
Black Thunder Drug House  
-----  
-----  
  
NNNNNNNN Our Services NNNNNN  
  
[1] Prescription  
[2] Medicine Handle  
[3] Searching Option  
[4] About Pharmacy  
[5] Log Out  
[6] Exit  
  
Enter Your Choice :
```

Prescription Interface:

```
*****  
*****  
**                                     **  
**                               Prescription                               **  
**                                     **  
*****  
*****  
  
[1] Prescription Memo Generator  
[2] Memo History  
  
Enter Your Choice :
```

Memo Generator Interface:

```
*****
*****
**                               **
**                               **
**                               **
**                               **
**                               **
**                               **
*****
*****

How many medicine you want to prescript : 1

Enter Medicine 1 name           : Napa
Enter Daily Dose (Pcs)          : 2
Enter Total Days                 : 10
Enter Want Days                  : 5

Your Medicine 1 Quantity is      : 10

                                   Medicine 1 : Napa X 10      Price : 120.00 Taka

Dose is not Fullfill
----- Require more 10 Pcs -----

                                   **Total Price** : 120.00 Taka

Shope Take                        : 200
Shope Provide                      : 80.00 Taka
Press enter to provide 80.00 Taka To The Customer...

                                   **Due**                : 00.00 Taka

[1]. Print Memo
[2]. Skip Memo

Enter Your Choice : 1
Enter Customer Phone Numer : 01500000000

Press any key to Home Page--->.....
```

Memo History Interface:

```
*****
*****
**                               **
**                               **
**                               **
**                               **
**                               **
**                               **
*****
*****

Enter Customer Phone Number : 01500000000

Wed May 22 12:30:22 2024

Medicine Name : Napa
Medicine Quantity : 10 Pcs
Total Napa Price : 120.00 Taka

Total Price : 120.00 Taka

Press any key to Home Page--->.....
```

Medicine Search Interface:

```
*****
*****
**                                     **
**                               Search Medicine                               **
**                                     **
*****
*****

Your Searched Medicine Below :

Medicine Name      : Seclo
Medicine Group     : Hydro
Medicine Price     : 8.00 Taka
Medicine Quantity  : 500 Pcs

Press any key to Home Page-->.....
```

Search Option Interface:

```
*****
*****
**                                     **
**                               Type of Search                               **
**                                     **
*****
*****

[1] Search Branch
[2] Search Doctor
[3] Search Ambulance
[4] Search Hospital
[5] Search Salesman

Enter Your Choice :
```

Doctor Search Interface:

```
*****
*****
**                                     **
**                               Search Doctor                               **
**                                     **
*****
*****
```

Doctors in Savar :

Doctor Name : Shamim_Reza
Specialist : Arthopedic
City : Savar
Phone : 12131415

Press any key to Home Page--->.....

About Pharmacy Interface:

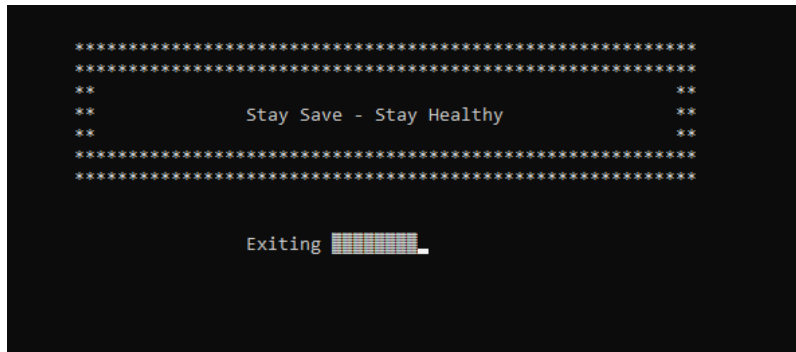
```
*==*==*==*==*---Black Thunder Drug House---*==*==*==*==*
```

Owner : Golam Md Rabby Khan
Address : Sena Shopping Complex, Savar, Dhaka
Phone : +880 1611 135313
Total Salesman : 03
Website : www.black_thunder_drug_house.com

--Thank You For Knowing About Us--

Press any key to Home Page--->.....

Exiting Interface:



References

<https://github.com/rabbykhanswe/Capstone-Project>

Appendices

Read the Readme.txt file from the References link.