PSP [20ES104] COURSE PROJECT REPORT

On

"Pharmacy Management System"

Developed By:

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CERTIFICATE

This is to certify that the PSP course project report entitled "Pharmacy Management System" is a record of Bonafide work carried out by the student(s) **P. Ashwanth** – 2203A51151(CSE), **S. Mahesh** – 2203A51159(CSE), **M. Reethika** – 2203A51141(CSE**),** **P. Sloka Reddy** – 2203A51150(CSE), **K. Hasini** - 2205A41110 (ECE) during the academic year 2022-23.

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INDEX

PROBLEM STATEMENT

The purpose of the project on Pharmacy management system is to create a software solution that facilitates the management and operation of a medical store. The medical store deals with the selling of medicines, maintaining an inventory of medicines, processing customer purchases, and generating sales reports. The current manual system used by the medical store is time consuming and prone to errors. Therefore, the objective is to develop a computer base solution to reduce the manual work for managing the medical shops and automate and streamline these processes.

Providing details of the functionality for below mentioned: -

1) Accessing the details of medicine
2) Searching for customer's medicines
3) Printing bill for customer
4) Sorting the inventory according to:
   a) Expiry date
   b) Medicine name
5) Generating sales report on a particular date
6) Adding new medicines to inventory
7) Editing details of a medicine
8) Deleting expired medicines

MODULES: -

In this application all structures and some variables are globally declared so that these can be accessed throughout the program at any function call. We can choose any function calls which are declared in the switch cases. To repeat the loop control statement(do-while), goto statement is used with condition. In this program we used structures for customer details and to read each medicine details. This information is already stored in the (.txt) files which are created in the program and this data can be accessed throughout the program.

In this application we have three modules in the starting interface: -

1. *customers usage*
2. *management usage*
3. *exit*

A. customer's usage: -

This module is mainly used to print the customer's bill. It is done according to the selected choice. In this case there is a sub menu. When we select the customer's usage it asks to enter the basic details of the customer such as name, age, gender & phone number. After entering the necessary details, a list of options are displayed on to the screen. And the sub-modules are:

Search customer medicine, print bill and go back

- **Search customer medicine**: - This module is designed to allow users to search for a specific medicine within the inventory. When this function is called, a list of medicine names available in the store are displayed and it prompts the user to input the name of the medicine they are looking for. The program then searches the inventory for a match based on the provided name.

  If a match is found, the function retrieves and displays the details of the medicine. These details typically include information such as the medicine's name, address, box number, quantity, manufacturing date, expiry date, and price. It prompts the user to input quantity required by the customer. It compares the inputted quantity with the quantity available in the inventory. If it has the enough quantity, it successfully adds the medicine to the bill. If the stock of the medicine is less than the entered quantity a sorry message is displayed with available stock of the medicine.

  If no matches are found, the function typically displays a message indicating that the medicine was not found in the inventory. This feedback informs the user that the searched medicine is currently not available and helps prevent any confusion or misunderstanding.

This function asks to enter "1" to continue to iterate for adding another medicine.

- **Print bill:** -This function generates a bill for a customer's purchase. It takes the customer's details, such as name, age, gender, and contact number, along with the medicines purchased and their quantities from the above functions and displays them along with the date and time. The function calculates the total expenses incurred by the customer and generates a detailed breakdown of the items purchased, including their names, quantities, and individual prices. It calculates the total bill and offers a discount of 5% if the bill rises over Rs.1000/-. The bill provides a clear summary of the purchase and facilitates accurate record-keeping, ensuring transparency and accountability in the billing process. Here in the bill, date and time are automatically updated using a header file (time.h).
- **Go back**: - This function is also responsible for updating the data file with the latest information regarding the medicine inventory. By calling this function, the program updates the data files, maintaining accurate and up-to-date records of the medicines available in the store, customer's bills and finally goes back to the main menu.

B. Management usage:

In this module the management can do edit, search, sort and to see the day-to-day sales report. There is a sub menu we can choose any option as per the user requirement.

1.add new medicine 2.see list 3. delete a specific medicine 4. sort by expire date 5. sort by medicine name 6. edit any medicine details 7. expired medicine details 8. sales report 9. go back.

- **Add new medicines:** -This function enables the addition of a new medicine to the inventory. It prompts the user to input the necessary details of the medicine, such as the name, address, box number, quantity, manufacturing date, expiry date, and price. By calling this function, the program adds the new medicine to the existing inventory, ensuring that the store's stock remains up to date and comprehensive.
- **See list**: -This function displays the complete list of medicines available in the store. By calling this function, the program generates an overview of the inventory, presenting the details of each medicine, such as its name, address, box number, quantity, manufacturing date, expiry date, and price. This functionality store management in obtaining a comprehensive understanding of the available medicines, facilitating informed decision-making and efficient stock management.

- **Delete a specific medicine**: - This function allows the deletion of a specific medicine from the inventory. This function provides flexibility in managing the medicines available in the store by enabling the removal of outdated or irrelevant medicines. It prompts the user to input the name of the medicine to be deleted, and upon confirmation, removes the corresponding medicine from the inventory.
- **Sort by expire date**: -This function is designed to sort the medicines in the inventory based on their expiry dates. By calling this function, the program rearranges the medicines in ascending order according to their expiry dates. This functionality facilitates better organization and identification of expired medicines, enabling the store management to prioritize their removal and prevent the sale of expired products to customers.
- **Sort by medicine name**: -This function sorts the medicines in the inventory based on their names. By calling this function, the program arranges the medicines in alphabetical order, facilitating organized and systematic access to the inventory. This sorting mechanism assists in quickly locating specific medicines and maintaining a structured representation of the available products.
- **Expired medicine details**: - This function extracts details of expired medicines stored in the file and displays them on to the screen. These medicines are actually deleted from the inventory as they expired in comparison to the present date.
- **Sales report**: -This function calculates and displays the total revenue earned by the medical store by taking input of a specific date. By calling this function, the program analyses the sales records and calculates the sum of all transactions, providing an accurate representation of the store's financial performance. This functionality allows store management to monitor revenue, track sales trends, and assess the overall profitability of the business, enabling informed decision-making and financial planning.
- **Edit any medicine details**: -This function enables the editing of details associated with a medicine in the inventory. It prompts the user to input the name of the medicine to be edited and then allows them to modify its attributes, such as the name, address, box number, quantity, manufacturing date, expiry date, or price. By calling this function, the program updates the relevant information, ensuring that the inventory remains accurate and reflects any changes made to the medicine's details.
- **Go back**: - This function is also responsible for updating the data file with the latest information regarding the medicine inventory. By calling this function, the program updates the data file, maintaining accurate and up-to-date records of the medicines available in the store and goes back to the main menu.

C. Exit:

This function Is used to display the message to the user that, task Is completed and opens the gate way to the end of the program.

KNOWLEDGE REQUIRED TO DEVELOP THIS APPLICATION

- Control statements (if, if-else, switch)
- Loop statements (while/do while, for)
- Arrays(1D)
- Strings and its functions.
- Functions (any user defined functions)
- Files (read, write, append).
- Structure (structures and array structures)
- Pointers (pointers to structures)
- Unconditional statements (break, goto)
- Header files & libraries in C
- Typecasting data types.
- Files handling
- Extern files

SOURCE CODE [.C FILE]:

//save this file with any name

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<stdlib.h>
#include<time.h>
#include "desin.c"
#include "bill.h"

int nummed=0,ash=0;
int i,n,j,date=0;
char newdate[15];
struct medicine med[100];
struct medicine mahi;
struct medicine bill[20];
customers cust;
FILE *f1;
main()
{
        char ch;
        f1=fopen("D:/editor/medical.txt","r");
        for(i=0;fscanf(f1,"%s%s%s%d%s%s%f",med[i].medname,med[i].address,med[i].box
        ,&med[i].quantity,med[i].mdate,med[i].edate,&med[i].price)!=EOF;i++);
        nummed=i;
        fclose(f1);

        new_date();
        start:
        design(1);
        printf("\n\n\n\t\t\t\t\t List of options");
        printf("\n\t\t\t\t\t1.customer's usage”);
        printf(“\n\t\t\t\t\t2.mangement usage\n\t\t\t\t\t3.Exit\n");
        printf("\n\n\n\t\t\t\tenter the option :  ");
        scanf(" %c",&ch);
        switch(ch)
        {
                case '1':system("cls");
                design(1);customer();
                break;
                case '2':system("cls");management();
                break;
                case '3':system("cls");design(1);goto end;
```

```
        }
        system("cls");
        goto start;
end: printf("\t\t\t\t\tTask has completed.....\n\n\n\n\n\n\n\n\n\n");
}
void expdel(char b[])
{
        f1=fopen("D:/editor/expiredmedical.txt","a");
        fprintf(f1,"%-15s\t%-15s\t%-15s\t%-10d\t%-10s\t%-10s\t%-
10.2f\n",mahi.medname,mahi.address,mahi.box,mahi.quantity,mahi.mdate,mahi.edate,mahi
.price);
        fclose(f1);
        int i,j;
        for(i=0;i<nummed;i++)
        {
                if(strcmp(med[i].medname,b)==0)
                {
                        for(j=i;j<nummed;j++)
                        {
                                med[j]=med[j+1];
                        }
                        nummed--;
                        break;
                }
        }
}

void new_date()
{
        int  i,y,m,x=0,l;
        time_t t = time(NULL);
        struct tm tm = *localtime(&t);
        sprintf(cust.date,"%02d/%02d/%d", tm.tm_mday, tm.tm_mon + 1, (tm.tm_year +
1900)%100);
        x=date_converter(cust.date);
        for(i=0;i<nummed;i++)
        {
                l=date_converter(med[i].edate);
                if(l<=x)
                {
                        mahi=med[i];
                        expdel(med[i].medname);
                        i=-1;
                }
```

```
        }
        updater();
}

void show_expiry()
{
        int i=0,j;
        printf("\n\t\t\t\t\tExpired medicines are :\n");
        printf("\n\t\t\t\t\t");
        for(j=0;j<83;j++)
                        printf("-");
        printf("\n\t\t\t\t\t|%-5s|%-20s|%-10s|%-5s|%-8s|%-10s|%-10s|%-
6s|\n","s.no.","med_name","address","box","quantity","Mfg date","exp date","price");
        printf("\t\t\t\t");
                for(j=0;j<83;j++)
                        printf("-");
        f1=fopen("D:/editor/expiredmedical.txt","r");
        while(fscanf(f1,"%s%s%s%d%s%s%f",mahi.medname,mahi.address,mahi.box,&ma
hi.quantity,mahi.mdate,mahi.edate,&mahi.price)!=EOF)
        {
                printf("\n\t\t\t\t\t|%-5d|%-20s|%-10s|%-5s|%-8d|%-10s|%-10s|%-
6.2f|\n",++i,mahi.medname,mahi.address,mahi.box,mahi.quantity,mahi.mdate,mahi.edate,m
ahi.price);
                printf("\t\t\t\t");
                for(j=0;j<83;j++)
                        printf("-");
        }
        fclose(f1);
        printf("\n\n\t\t\t\t\t Enter anything to continue -> ");
        getch();
}

void customer_details()
{
        printf("\n\n\n\t\t\t\tENTER THE CUSTOMER DETAILS :\n\n ");
        printf("\n\t\t\t\tNAME : ");
        scanf("%s",cust.name);
        printf("\n\t\t\t\tAGE : ");
        scanf("%d",&cust.age);
        printf("\n\t\t\t\tCONTACT NO : ");
        scanf("%lld",&cust.number);
        printf("\n\t\t\t\tGENDER(M/F) : ");
        scanf(" %s",cust.gender);
        ash=0;
```

```
        system("cls");
}
void customer()
{
        customer_details();
        char n;
        do
        {
        design(1);
        printf("\n\n\t\t\t\t\t\t\t\t\t    * CUSTOMER SECTION *");
        printf("\n\n\t\t\t\t\t List of customer options");
        printf("\n\n\t\t\t\t\t\t1.search customer medicine\n\t\t\t\t\t\t2.print
bill\n\t\t\t\t\t\t3.Go back\n");
        printf("\n\n\n\t\t\t\t\tenter the option :  ");
        scanf(" %c",&n);
        switch(n)
        {
                case '1':system("cls");search();
                break;
                case '2':system("cls");display();
                break;
                case '3':goto deadend;
        }
        system("cls");
        }while(1);
        deadend:printf("");
        updater();
        if(cust.expenses!=0)
        {
                bill_updater();
        }
}
void management()
{
        char n;
        do
        {
        design(1);
        printf("\n\n\t\t\t\t\t\t\t\t\t  * MANAGEMENT SECTION *");
        printf("\n\n\n\t\t\t\t\t List of management options");
        printf("\n\n\t\t\t\t\t\t1.add new medicine\n\t\t\t\t\t\t2.see list");
        printf("\n\t\t\t\t\t\t3.delete a specic medicine\n\t\t\t\t\t\t4.sort by expire
date\n\t\t\t\t\t\t5.sort by medicine name");
```

```
        printf("\n\t\t\t\t\t6.edit any medicine details\n\t\t\t\t\t7.Expired medicine
details\n\t\t\t\t\t8.Sales report\n\t\t\t\t\t9.Go back\n");
        printf("\n\n\n\t\t\t\tenter the option :  ");
        scanf(" %c",&n);
        switch(n)
        {
                case '1':system("cls");design(1);
                update();
                break;
                case '2':system("cls");design(1);
                see(1);
                break;
                case '3':system("cls");design(1);
                deleter();
                break;
                case '4':system("cls");design(1);
                sorter();
                break;
                case '5':system("cls");design(1);
                name_sorter();
                break;
                case '6':system("cls");design(1);
                edit();
                break;
                case '7':system("cls");design(1);
                show_expiry();
                break;
                case '8':system("cls");design(1);
                report(&cust);
                break;
                case '9':goto back;
        }
        system("cls");
        }while(1);
        back: printf("");
        updater();
}

void search()
{
        design(1);
        printf("\t\t\t\tHere is a list of medicines in our store\n\t\t\t\t\t");
        for(i=1;i<=nummed;i++)
        {
```

```
        printf("%-20s\t",med[i-1].medname);
        if(i%4==0)
        printf("\n\t\t\t\t\t");
}
printf("\n\t\t\t\t\tEnter the Medicines Customer required \n\n");
char b[20];
int ch;
int flag=0,p,k,x,bil=-0,lil=-0;
do{
p=0;
printf("\t\t\t\t\tEnter the Medicine name : ");
scanf("%s",b);
for(i=0;i<ash;i++)
{
        if(strcmp(bill[i].medname,b)==0)
        {
                bil=i;
                for(j=0;j<nummed;j++)
                {
                        if(strcmp(med[j].medname,b)==0)
                        {
                                lil=j;
                                p=1;
                                break;
                        }
                }
                break;
        }
}
if(p==1)
{
        printf("\t\t\t\t\tEnter quantity to update  : ");
        scanf("%d",&x);
        bill[bil].quantity+=x;
        if(x>med[lil].quantity)
        {
        printf("\n\t\t\t\t\tSorry !  We dont have enough quantity");
        printf("\n\t\t\t\t\tWe only have ->  %d  <- units left\n",med[lil].quantity);
        bill[bil].quantity-=x;
        }
        else
        {
        med[lil].quantity=med[lil].quantity-x;
        }
```

```
        }
        else
        {
        flag=0;
        for(i=0;i<nummed;i++)
        {
                k=5;
                k=strcmp(b,med[i].medname);
                if(k==0)
                {
                        bill[ash]=med[i];
                        printf("\t\t\t\t\tEnter quantity : ");
                        scanf("%d",&bill[ash].quantity);
                        if(bill[ash].quantity>med[i].quantity)
                        {
                        printf("\n\t\t\t\t\tSorry !  We dont have enough quantity");
                        printf("\n\t\t\t\t\tWe only have ->  %d  <- units
left\n",med[i].quantity);
                        bill[ash].quantity=0;
                        }
                        else
                        {
                        med[i].quantity=med[i].quantity-bill[ash].quantity;
                        ash++;
                        }
                        flag=2;
                        break;
                }
        }
        if(flag!=2)
        printf("\n\t\t\t\t\t medicine not available\n");
        }
        printf("\n\n\t\t\t\t\tEnter 1 to add another medicine :");
        scanf("%d",&ch);
        }while(ch==1);
}
void display()
{
        int t=0;
        float d=0;
        time_t T = time(NULL);
        struct tm tm = *localtime(&T);
        design(2);
        //printf("\n\t\t\t\t\tCUSTOMER DETAILS  ->\n\n");
```

```
        printf("\t\t\t\t\t\t\t\t\t* CASH BILL *\n");
        printf("\n\t\t\t\t\tNAME : %-15s",cust.name);
        printf("\t\tAGE : %-10d",cust.age);
        printf("\t\tGENDER : %-10s",cust.gender);
        printf("\n\n\t\t\t\t\tCONTACT NO : %-15lld",cust.number);
        printf("\tBILL DATE : %02d-%02d-%d", tm.tm_mday, tm.tm_mon + 1, tm.tm_year +
1900);
        printf("\t\tBILLED TIME:%02d:%02d:%02d\n", tm.tm_hour, tm.tm_min, tm.tm_sec);
        cust.expenses=0;
        printf("\n\t\t\t\t\t");
        for(j=0;j<82;j++)
                printf("-");
        printf("\n\t\t\t\t\t|%-5s|%-30s|%-10s|%-10s|%-10s|%-
10s|\n","s.no.","med_name","exp date","quantity","rate","Amount");
        for(i=0;i<ash;i++)
        {
                if(bill[i].quantity!=0)
                {
                printf("\t\t\t\t\t");
                for(j=0;j<82;j++)
                        printf("-");
                printf("\n\t\t\t\t\t|%-5d|%-30s|%-10s|%-10d|%-10.2f|%-
10.2f|\n",++t,bill[i].medname,bill[i].edate,bill[i].quantity,bill[i].price,(float)(bill[i].quantity*
bill[i].price));
                }
        }
        printf("\t\t\t\t\t");
        for(j=0;j<82;j++)
                printf("-");
        for(j=0;j<ash;j++)
                cust.expenses+=bill[j].price*bill[j].quantity;
        printf("\n\n\t\t\t\t\tGROSS AMOUNT: %-10.2f",cust.expenses);
        if(cust.expenses>=1000)
        d=cust.expenses*5/100;
        printf("\n\t\t\t\t\tDISCOUNT : %-10.2f",d);
        cust.expenses-=d;
        printf("\n\t\t\t\t\tNet Payable  Amount: %-10.2f",cust.expenses);
        printf("\n\n\t\t\t\t\t\t\t\t\t HAVE A SPEEDY RECOVERY ");
        printf("\n\n\t\t\t\tEnter anything to continue -> ");
        getch();
}
void update()
{
                printf("\n\t\t\t\t\t\tENTER  MEDICINE  DETAILS\n");
```

```
                printf("\t\t\t\t\tEnter medicine name:  ");
                scanf("%s",med[nummed].medname);

                printf("\t\t\t\t\tEnter medicine address: ");
                scanf("%s",med[nummed].address);

                printf("\t\t\t\t\tEnter medicine box:  ");
                scanf("%s",med[nummed].box);

                printf("\t\t\t\t\tEnter medicine quantity: ");
                scanf("%d",&med[nummed].quantity);

                printf("\t\t\t\t\tEnter medicine manufacturing date (MM/YY) : ");
                scanf("%s",med[nummed].mdate);

                printf("\t\t\t\t\tEnter medicine expiry date (MM/YY) : ");
                scanf("%s",med[nummed].edate);

                printf("\t\t\t\t\tEnter medicine price:  ");
                scanf("%f",&med[nummed].price);

                nummed++;
        printf("\t\t\t\t\tMedicine added sucessfully");
        updater();
        printf("\n\n\t\t\t\t\t Enter anything to continue -> ");
        getch();
}
void see(int bts)
{
        if(bts==1)
        printf("\t\t\t\t\tMedicines available in our store:");
        if(bts==2)
        printf("\t\t\t\t\tMedicines sorted according to expiry date:");
        if(bts==3)
        printf("\t\t\t\t\tMedicines sorted according to alphabetical order:");
        printf("\n\t\t\t\t\t");
        for(j=0;j<83;j++)
                        printf("-");
        printf("\n\t\t\t\t\t|%-5s|%-20s|%-10s|%-5s|%-8s|%-10s|%-10s|%-
6s|\n","s.no.","med_name","address","box","quantity","Mfg date","exp date","price");
        for(i=0;i<nummed;i++)
        {
                printf("\t\t\t\t\t");
                for(j=0;j<83;j++)
```

```
                printf("-");
            printf("\n\t\t\t\t\t|%-5d|%-20s|%-10s|%-5s|%-8d|%-10s|%-10s|%-
6.2f|\n",i+1,med[i].medname,med[i].address,med[i].box,med[i].quantity,med[i].mdate,med[
i].edate,med[i].price);
        }
        printf("\t\t\t\t\t");
        for(j=0;j<83;j++)
                printf("-");
        printf("\n\n\t\t\t\t\t Enter anything to continue -> ");
        getch();
}

void deleter()
{
        char b[10];
        int check=0;
        printf("\t\t\t\tHere is a list of medicines in our store\n\t\t\t\t\t");
        for(i=1;i<=nummed;i++)
        {
                printf("%-20s\t",med[i-1].medname);
                if(i%4==0)
                printf("\n\t\t\t\t\t");
        }
        printf("\n\n\n\t\t\t\tEnter the medicine to delete: ");
        scanf("%s",b);
        for(i=0;i<nummed;i++)
        {
                if(strcmp(med[i].medname,b)==0)
                {
                        for(j=i;j<nummed;j++)
                        {
                                med[j]=med[j+1];
                        }
                        nummed--;
                        check=1;
                        printf("\n\t\t\t\t\tMedicine sucessfully deleted");
                        break;
                }
        }
        if(check==0)
        {
                printf("\n\t\t\t\t\tMedicine not available in our store");
        }
        printf("\n\n\t\t\t\t\t Enter anything to continue -> ");
```

```
	getch();
}

void edit()
{
	char b[20];
	int p=0;
	printf("\t\t\t\t\tHere is a list of medicines in our store\n\t\t\t\t\t\t");
	for(i=1;i<=nummed;i++)
	{
		printf("%-20s\t",med[i-1].medname);
		if(i%4==0)
		printf("\n\t\t\t\t\t");
	}
	printf("\n\n\t\t\t\t\tEnter the Medicine name to edit : ");
	scanf("%s",b);
	for(i=0;i<nummed;i++)
	{
		if(strcmp(med[i].medname,b)==0)
		{
			printf("\t\t\t\t\tThe medicine details :\n\t\t\t\t\t\t");
			for(j=0;j<77;j++)
			printf("-");
			printf("\n\t\t\t\t\t|%-20s|%-10s|%-5s|%-8s|%-10s|%-10s|%-
6s|\n","med_name","address","box","quantity","Mfg date","exp date","price");
			printf("\t\t\t\t\t");
			for(j=0;j<77;j++)
				printf("-");
			printf("\n\t\t\t\t\t|%-20s|%-10s|%-5s|%-8d|%-10s|%-10s|%-
6.2f|\n",med[i].medname,med[i].address,med[i].box,med[i].quantity,med[i].mdate,med[i].e
date,med[i].price);
		printf("\t\t\t\t\t");
		for(j=0;j<77;j++)
		printf("-");
		printf("\n\t\t\t\t\tEnter the updates\n");
		printf("\t\t\t\t\tEnter medicine name:  ");
		scanf("%s",med[i].medname);

		printf("\t\t\t\t\tEnter medicine address: ");
		scanf("%s",med[i].address);

		printf("\t\t\t\t\tEnter medicine box:  ");
		scanf("%s",med[i].box);
```

```
                printf("\t\t\t\t\tEnter medicine quantity: ");
                scanf("%d",&med[i].quantity);

                printf("\t\t\t\t\tEnter medicine manufacturing date (MM/YY) : ");
                scanf("%s",med[i].mdate);

                printf("\t\t\t\t\tEnter medicine expiry date (MM/YY) : ");
                scanf("%s",med[i].edate);

                printf("\t\t\t\t\tEnter medicine price:  ");
                scanf("%f",&med[i].price);
                p=1;
                break;
                }
        }
        if(p==0)
        printf("\n\t\t\t\t\tMedicine not available in our store");
        printf("\n\n\t\t\t\t\t Enter anything to continue -> ");
        getch();
}

void updater()
{
        f1=fopen("D:/editor/medical.txt","w");
        for(i=0;i<nummed;i++)
        {
                if(med[i].quantity<=0)
                {
                        continue;
                }
        fprintf(f1,"%-15s\t%-15s\t%-15s\t%-10d\t%-10s\t%-10s\t%-
10.2f\n",med[i].medname,med[i].address,med[i].box,med[i].quantity,med[i].mdate,med[i].e
date,med[i].price);
        }
        fclose(f1);
        f1=fopen("D:/editor/medical.txt","r");
        for(i=0;fscanf(f1,"%s%s%s%d%s%s%f",
        med[i].medname,med[i].address,med[i].box,&med[i].quantity,med[i].mdate,med[i].e
date,&med[i].price)!=EOF;i++);
        nummed=i;
        fclose(f1);
}

void bill_updater()
```

```
{
        f1=fopen("D:/editor/medicalbill.txt","a");
        fprintf(f1,"\n%-15s\t%-20s\t%-5s\t%-5d\t%-15lld\t%-
10.2f",cust.date,cust.name,cust.gender,cust.age,cust.number,cust.expenses);
        fclose(f1);
}

void sorter()
{
        struct medicine tab;
        int m,y,x[nummed],p;
        for(i=0;i<nummed;i++)
        x[i]=date_converter(med[i].edate);
        for(i=0;i<nummed;i++)
        for(j=i+1;j<nummed;j++)
        if(x[i]>x[j])
        {
                p = x[i];
                tab=med[i];
                x[i] = x[j];
                med[i]=med[j];
                x[j] = p;
                med[j]=tab;
        }
        see(2);
}

void name_sorter()
{
        struct medicine tab;
        for(i=0;i<nummed;i++)
        for(j=i+1;j<nummed;j++)
        if(strcmp(med[i].medname,med[j].medname)>0)
        {
                tab=med[i];
                med[i]=med[j];
                med[j]=tab;
        }
        printf("\n");
        see(3);
}
```

SOURCE CODE [HEADER FILE]:

//save this file as desin.c

```
#include<stdio.h>
#include "bill.h"
void design(int a)
{
if(a==2)
{
printf("\t\t\t\t\t|==========================================================
============================|\n");
printf("\t\t\t\t\t|                                                          |\n");
printf("\t\t\t\t\t|                ----**   RAMESH MEDICALS   **----                  |\n");
printf("\t\t\t\t\t|             #2-882/2 , OPP:NEW BUSSTAND, HANAMKONDA , WARANGAL
|\n");
printf("\t\t\t\t\t|                     PHONE N0: 9876543210                         |\n");
printf("\t\t\t\t\t|                                                          |\n");
printf("\t\t\t\t\t|==========================================================
============================|\n\n\n");
}
else
{
printf("\t\t\t\t\t|==========================================================
================|\n");
printf("\t\t\t\t\t|                                                |\n");
printf("\t\t\t\t\t|              ----------------------------------          |\n");
printf("\t\t\t\t\t|                PHARMACY MANAGEMENT SYSTEM                |\n");
printf("\t\t\t\t\t|              ----------------------------------          |\n");
printf("\t\t\t\t\t|                                                |\n");
printf("\t\t\t\t\t|==========================================================
================|\n\n\n");
}
}
int date_converter(char a[])
{
int len,date=0,m=0,y=0,x=0,i;
len = strlen(a);
for(i=0; i<len; i++)
{
   if(a[i]>='0'&&a[i]<='9')
date = date * 10 + ( a[i] - '0' );
}
m=date%10000;
y=m%100;
m=m/100;
x=y*100+m;
return x;
```

```
}
void report(const customers *cust)
{
char red[15];
int k=0,j;
float sales=0;
FILE *f1;
printf("\t\t\t\t\t\t\t\t\t* sales report *");
printf("\n\n\t\t\t\t\tEnter the date (DD/MM/YY) : ");
scanf("%s",red);
printf("\n\t\t\t\t\t");
for(j=0;j<74;j++)
printf("-");
printf("\n\t\t\t\t\t|%-5s|%-20s|%-10s|%-5s|%-15s|%-
12s|\n","s.no.","Name","Gender","Age","Mobile.number","bill amount");
printf("\t\t\t\t\t");
for(j=0;j<74;j++)
printf("-");
f1=fopen("D:/editor/medicalbill.txt","r");
while(fscanf(f1,"%s%s%s%d%lld%f",cust->date,cust->name,cust->gender,&cust-
>age,&cust->number,&cust->expenses)!=EOF)
{
if(strcmp(red,cust->date)==0)
{
printf("\n\t\t\t\t\t|%-5d|%-20s|%-10s|%-5d|%-15lld|%-12.2f|\n",++k,cust->name,cust-
>gender,cust->age,cust->number,cust->expenses);
sales+=cust->expenses;
printf("\t\t\t\t\t");
for(j=0;j<74;j++)
printf("-");
}
}
printf("\n\t\t\t\t\tTotal sales of the day = %-10.2f",sales);
fclose(f1);
if(k==0){
system("cls");
design(1);
printf("\n\n\n\t\t\t\t\tSorry we dont have sales on that day");
}
printf("\n\n\t\t\t\t\t Enter anything to continue -> ");
getch();
}
```

SOURCE CODE [HEADER FILE]:

//save this file as bill.h

```
#ifndef BILL_H
#define BILL_H
struct customers {
        char name[20];
        int age;
        char gender[10];
        long long int number;
        float expenses;
        char date[15];
};
struct medicine
{
        char medname[20];
        char address[20];
        char box[20];
        int quantity;
        char mdate[10];
        char edate[10];
        float price;
};
void updater();
void deleter();
void sorter();
void update();
void see(int);
void search();
void display();
void design(int);
void edit();
void bill_updater();
void new_date();
void customer();
void customer_details();
void management();
void name_sorter();
extern void report(const customers *cust);
void show_expiry();
int date_converter(char []);
#endif
```

Source files(.txt files)

medical.txt

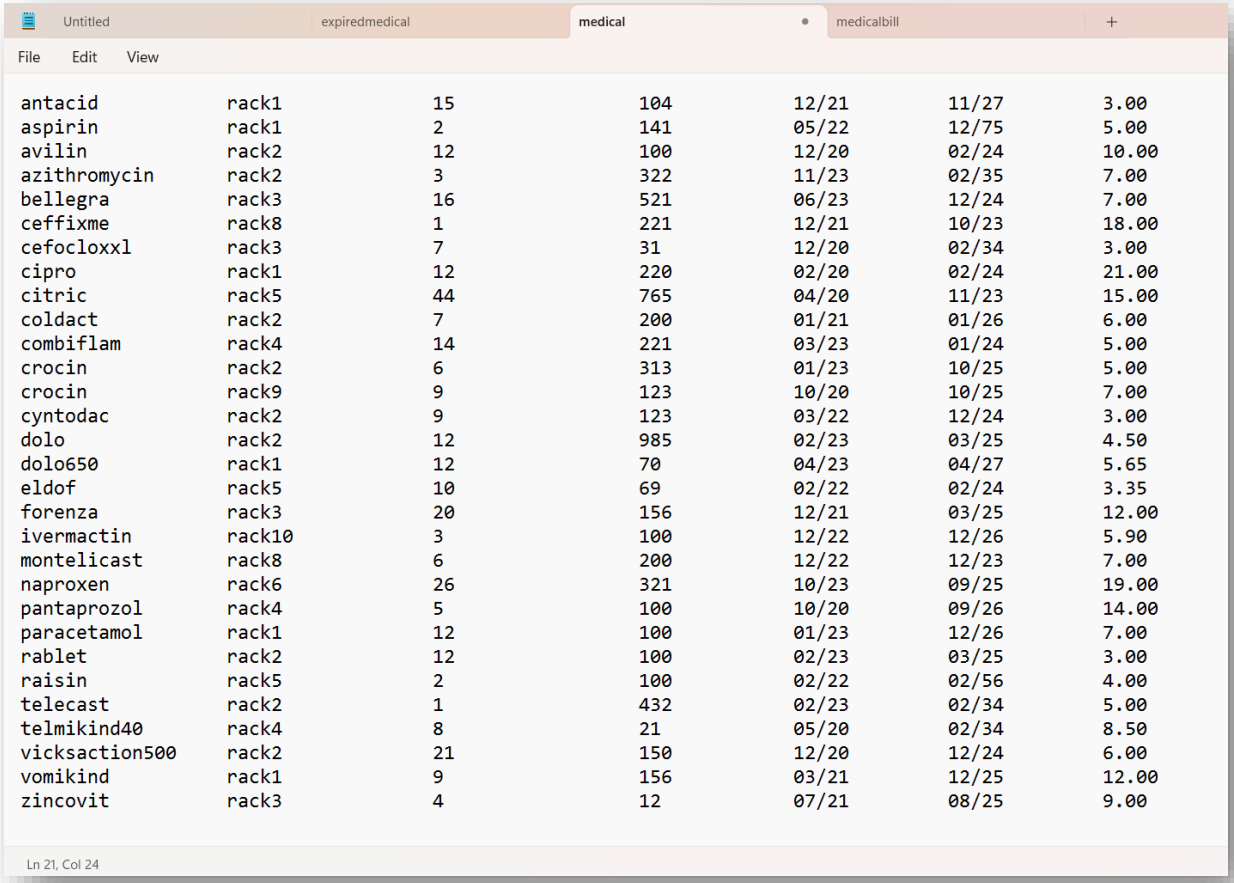


Fig 1:- This figure shows that the details of the medicine which is stored in the file medical.txt

expiredmedical.txt

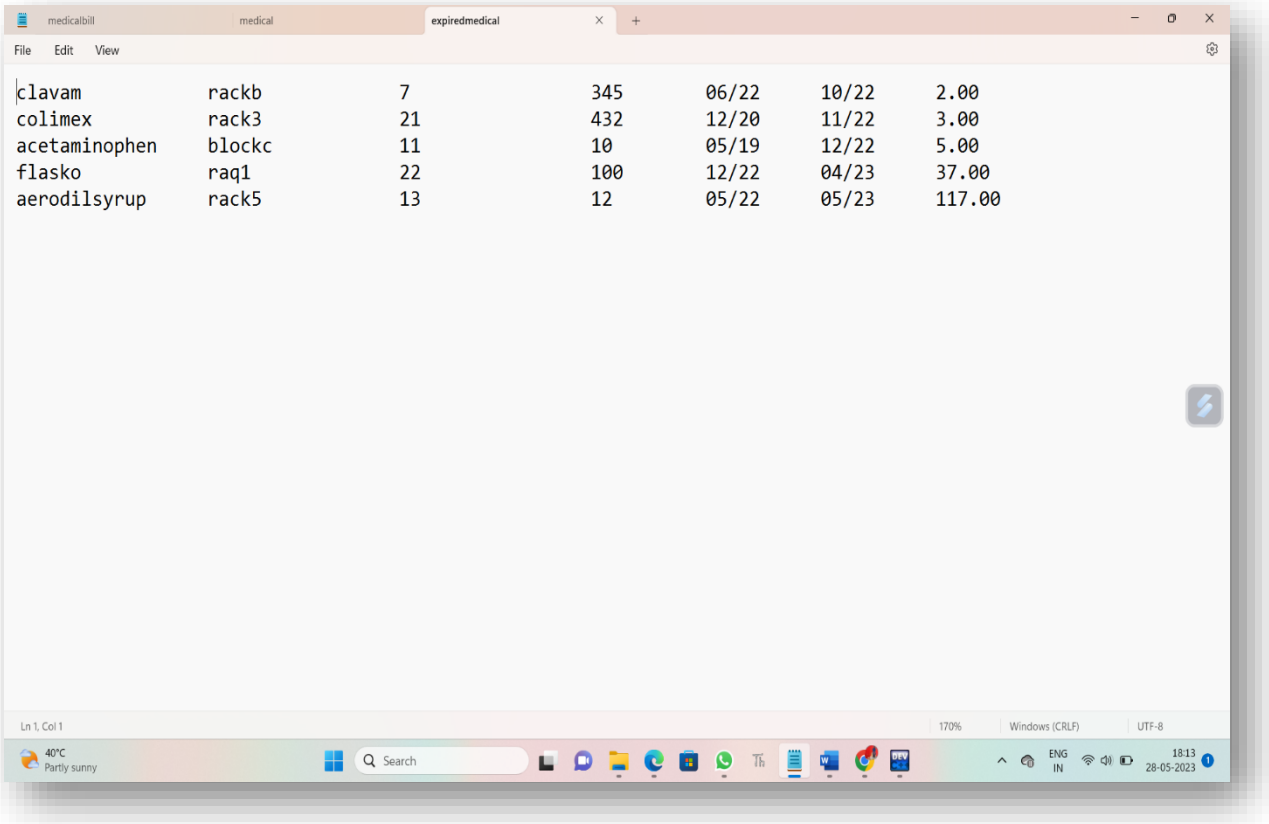


Fig 2:- This picture displays the expired medicine in the store along with the details in expiredmedical.txt

medicalbill.txt

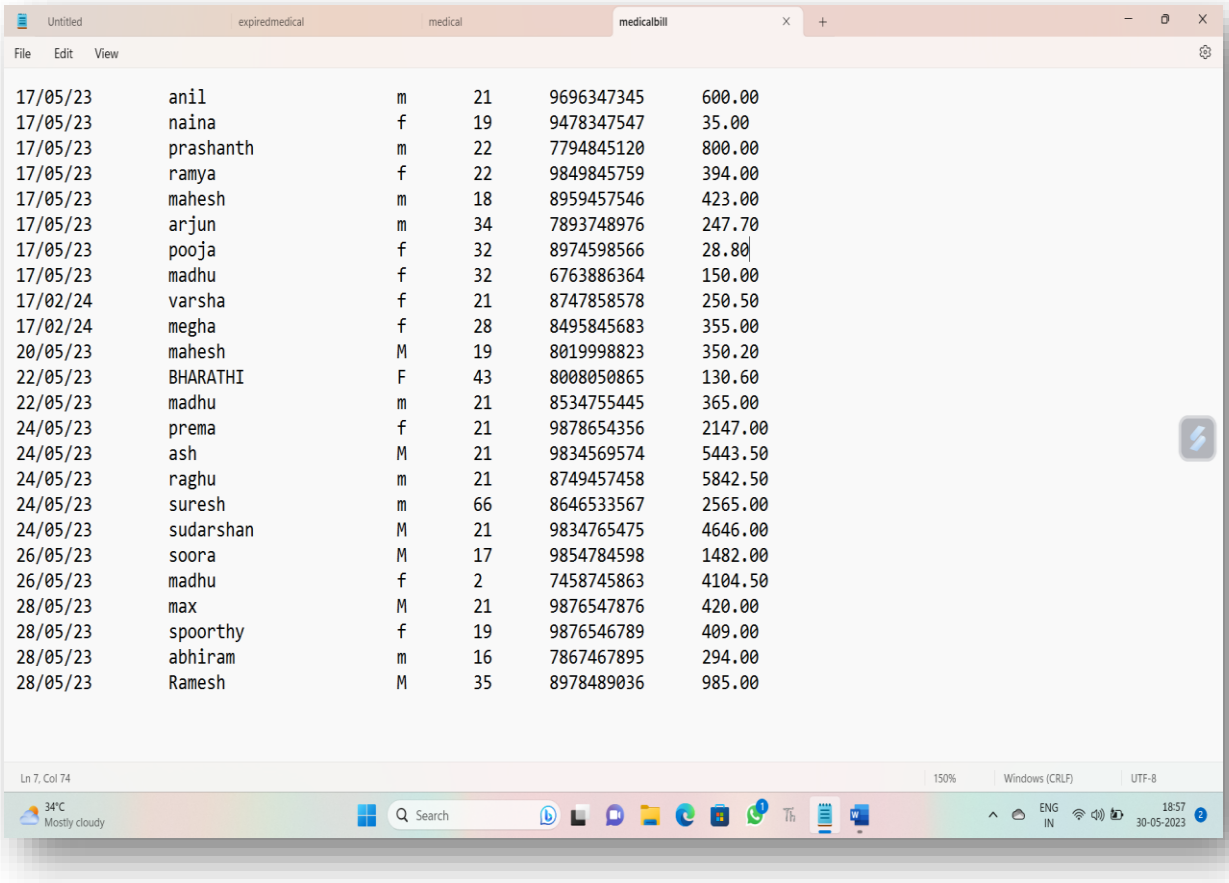
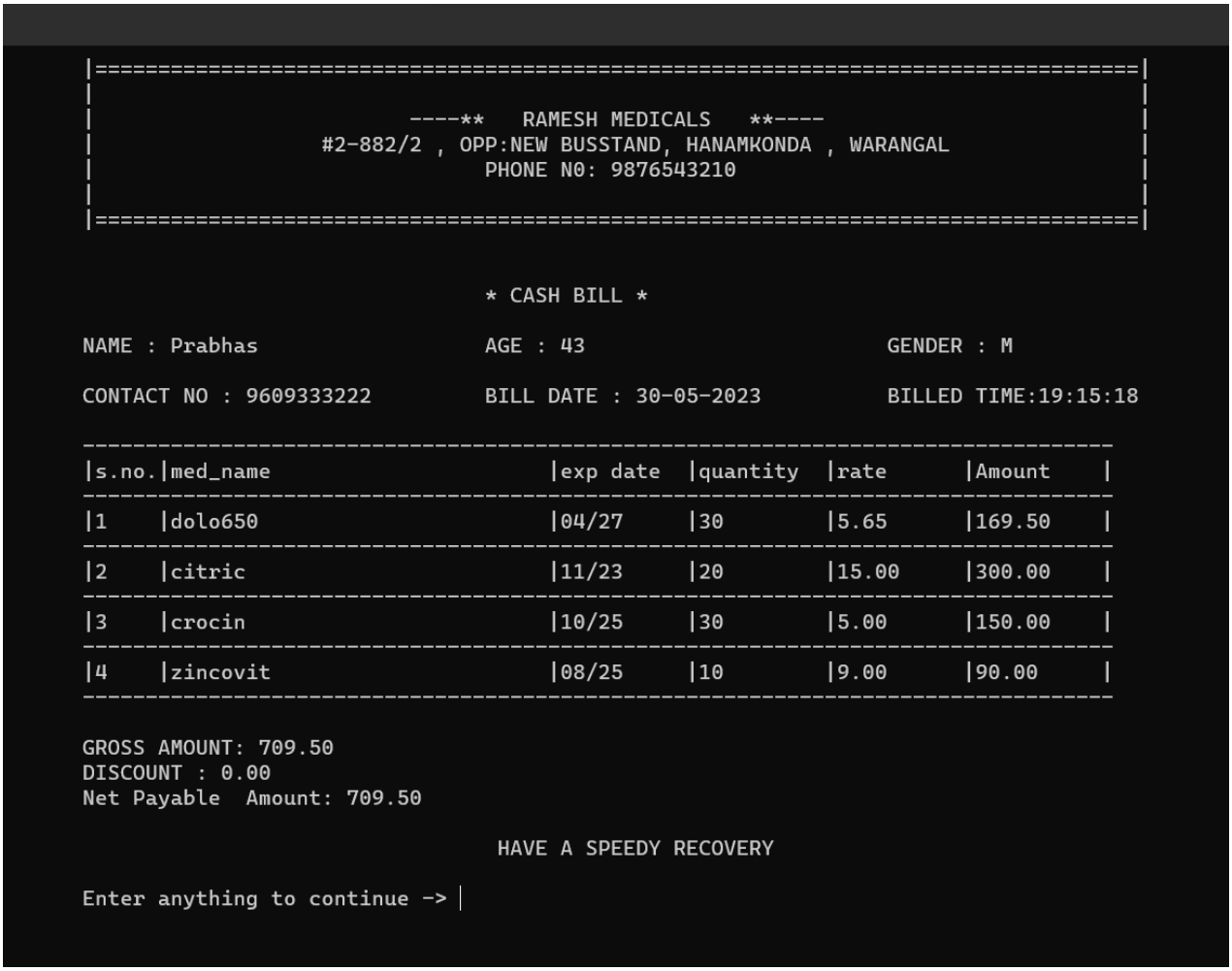


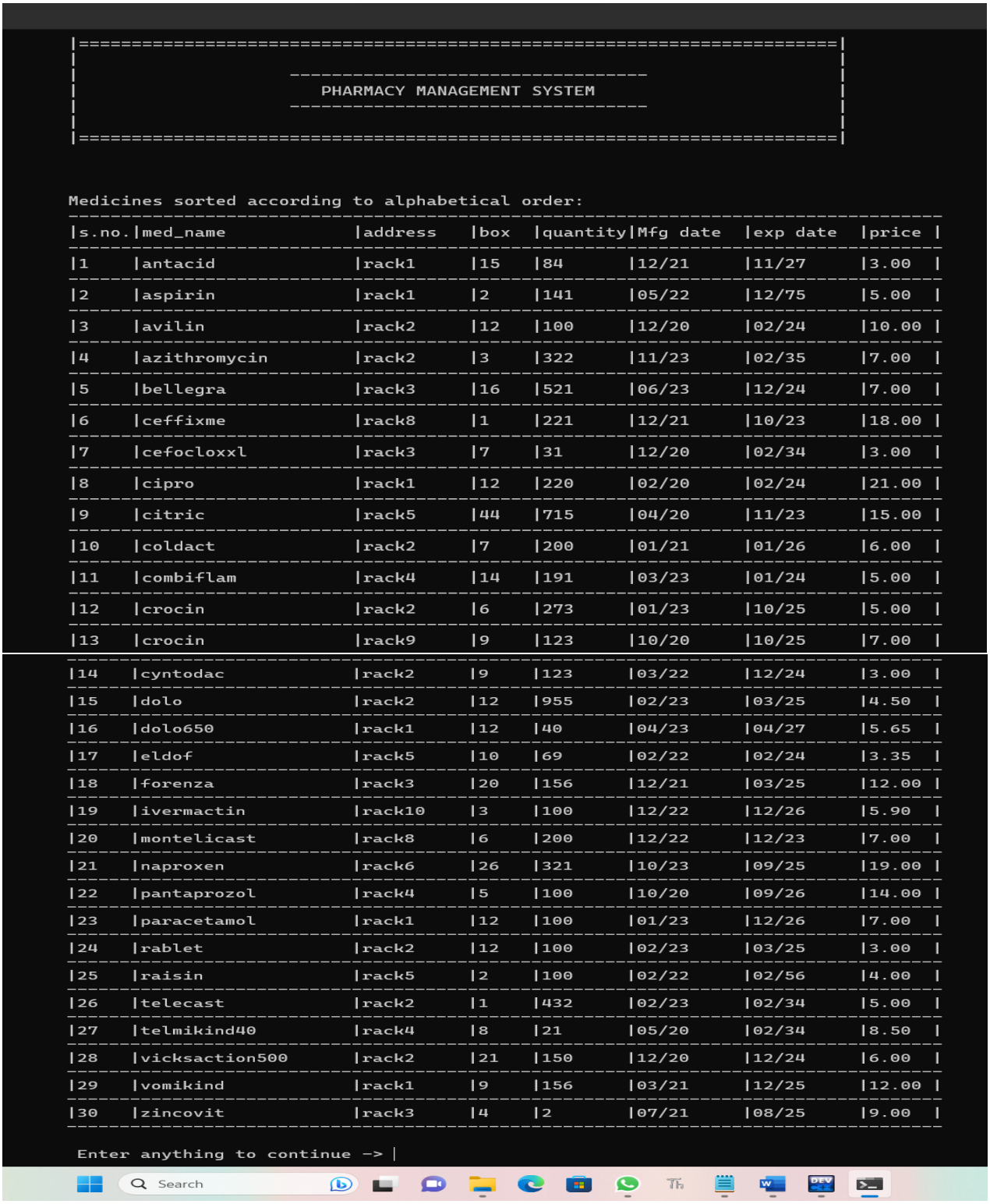
Fig 3:- This figure shows the medical bill according to the date and displays the customers details

RESULTS:



```
|=============================================================================|
|                                                                             |
|                        -----**   RAMESH MEDICALS   **-----                  |
|                  #2-882/2 , OPP:NEW BUSSTAND, HANAMKONDA , WARANGAL         |
|                              PHONE N0: 9876543210                           |
|                                                                             |
|=============================================================================|


                               * CASH BILL *

NAME : Prabhas                 AGE : 43                      GENDER : M

CONTACT NO : 9609333222        BILL DATE : 30-05-2023        BILLED TIME:19:15:18

-------------------------------------------------------------------------------
|s.no.|med_name                    |exp date  |quantity  |rate      |Amount    |
-------------------------------------------------------------------------------
|1    |dolo650                     |04/27     |30        |5.65      |169.50    |
-------------------------------------------------------------------------------
|2    |citric                      |11/23     |20        |15.00     |300.00    |
-------------------------------------------------------------------------------
|3    |crocin                      |10/25     |30        |5.00      |150.00    |
-------------------------------------------------------------------------------
|4    |zincovit                    |08/25     |10        |9.00      |90.00     |
-------------------------------------------------------------------------------

GROSS AMOUNT: 709.50
DISCOUNT : 0.00
Net Payable  Amount: 709.50

                                HAVE A SPEEDY RECOVERY

Enter anything to continue ->
```

Fig 4:- This figure shows the medical bill format which displays as an output



```
|=========================================================================|
|                                                                         |
|                      ----------------------------------                 |
|                         PHARMACY MANAGEMENT SYSTEM                      |
|                      ----------------------------------                 |
|                                                                         |
|=========================================================================|


Medicines sorted according to alphabetical order:
-------------------------------------------------------------------------------------------
|s.no.|med_name            |address   |box  |quantity|Mfg date  |exp date  |price |
-------------------------------------------------------------------------------------------
|1    |antacid             |rack1     |15   |84      |12/21     |11/27     |3.00  |
-------------------------------------------------------------------------------------------
|2    |aspirin             |rack1     |2    |141     |05/22     |12/75     |5.00  |
-------------------------------------------------------------------------------------------
|3    |avilin              |rack2     |12   |100     |12/20     |02/24     |10.00 |
-------------------------------------------------------------------------------------------
|4    |azithromycin        |rack2     |3    |322     |11/23     |02/35     |7.00  |
-------------------------------------------------------------------------------------------
|5    |bellegra            |rack3     |16   |521     |06/23     |12/24     |7.00  |
-------------------------------------------------------------------------------------------
|6    |ceffixme            |rack8     |1    |221     |12/21     |10/23     |18.00 |
-------------------------------------------------------------------------------------------
|7    |cefocloxxl          |rack3     |7    |31      |12/20     |02/34     |3.00  |
-------------------------------------------------------------------------------------------
|8    |cipro               |rack1     |12   |220     |02/20     |02/24     |21.00 |
-------------------------------------------------------------------------------------------
|9    |citric              |rack5     |44   |715     |04/20     |11/23     |15.00 |
-------------------------------------------------------------------------------------------
|10   |coldact             |rack2     |7    |200     |01/21     |01/26     |6.00  |
-------------------------------------------------------------------------------------------
|11   |combiflam           |rack4     |14   |191     |03/23     |01/24     |5.00  |
-------------------------------------------------------------------------------------------
|12   |crocin              |rack2     |6    |273     |01/23     |10/25     |5.00  |
-------------------------------------------------------------------------------------------
|13   |crocin              |rack9     |9    |123     |10/20     |10/25     |7.00  |
-------------------------------------------------------------------------------------------
|14   |cyntodac            |rack2     |9    |123     |03/22     |12/24     |3.00  |
-------------------------------------------------------------------------------------------
|15   |dolo                |rack2     |12   |955     |02/23     |03/25     |4.50  |
-------------------------------------------------------------------------------------------
|16   |dolo650             |rack1     |12   |40      |04/23     |04/27     |5.65  |
-------------------------------------------------------------------------------------------
|17   |eldof               |rack5     |10   |69      |02/22     |02/24     |3.35  |
-------------------------------------------------------------------------------------------
|18   |forenza             |rack3     |20   |156     |12/21     |03/25     |12.00 |
-------------------------------------------------------------------------------------------
|19   |ivermactin          |rack10    |3    |100     |12/22     |12/26     |5.90  |
-------------------------------------------------------------------------------------------
|20   |montelicast         |rack8     |6    |200     |12/22     |12/23     |7.00  |
-------------------------------------------------------------------------------------------
|21   |naproxen            |rack6     |26   |321     |10/23     |09/25     |19.00 |
-------------------------------------------------------------------------------------------
|22   |pantaprozol         |rack4     |5    |100     |10/20     |09/26     |14.00 |
-------------------------------------------------------------------------------------------
|23   |paracetamol         |rack1     |12   |100     |01/23     |12/26     |7.00  |
-------------------------------------------------------------------------------------------
|24   |rablet              |rack2     |12   |100     |02/23     |03/25     |3.00  |
-------------------------------------------------------------------------------------------
|25   |raisin              |rack5     |2    |100     |02/22     |02/56     |4.00  |
-------------------------------------------------------------------------------------------
|26   |telecast            |rack2     |1    |432     |02/23     |02/34     |5.00  |
-------------------------------------------------------------------------------------------
|27   |telmikind40         |rack4     |8    |21      |05/20     |02/34     |8.50  |
-------------------------------------------------------------------------------------------
|28   |vicksaction500      |rack2     |21   |150     |12/20     |12/24     |6.00  |
-------------------------------------------------------------------------------------------
|29   |vomikind            |rack1     |9    |156     |03/21     |12/25     |12.00 |
-------------------------------------------------------------------------------------------
|30   |zincovit            |rack3     |4    |2       |07/21     |08/25     |9.00  |
-------------------------------------------------------------------------------------------

 Enter anything to continue -> |
```

Fig 5:- This figuere shows the list of medicines available in the inventory

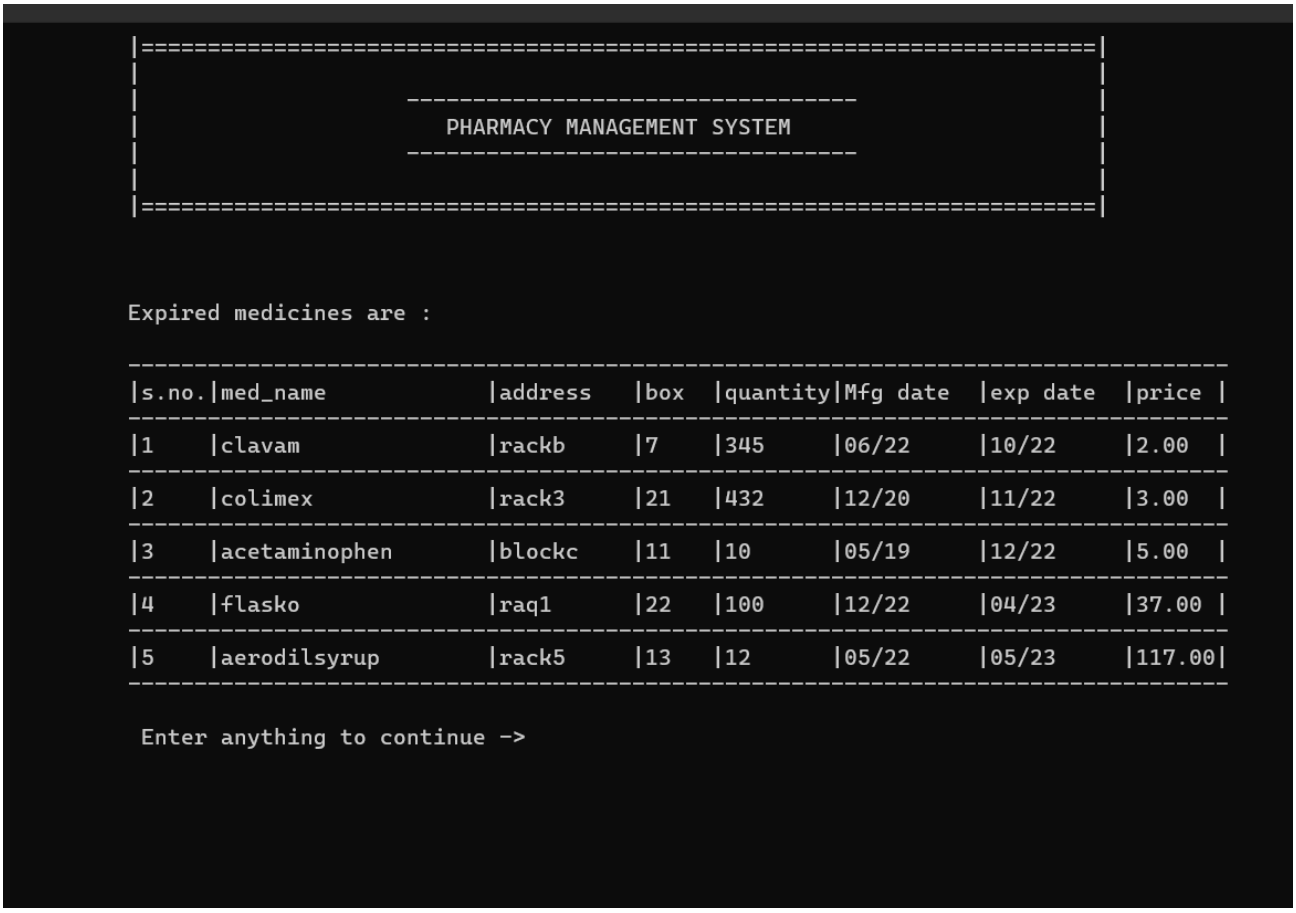
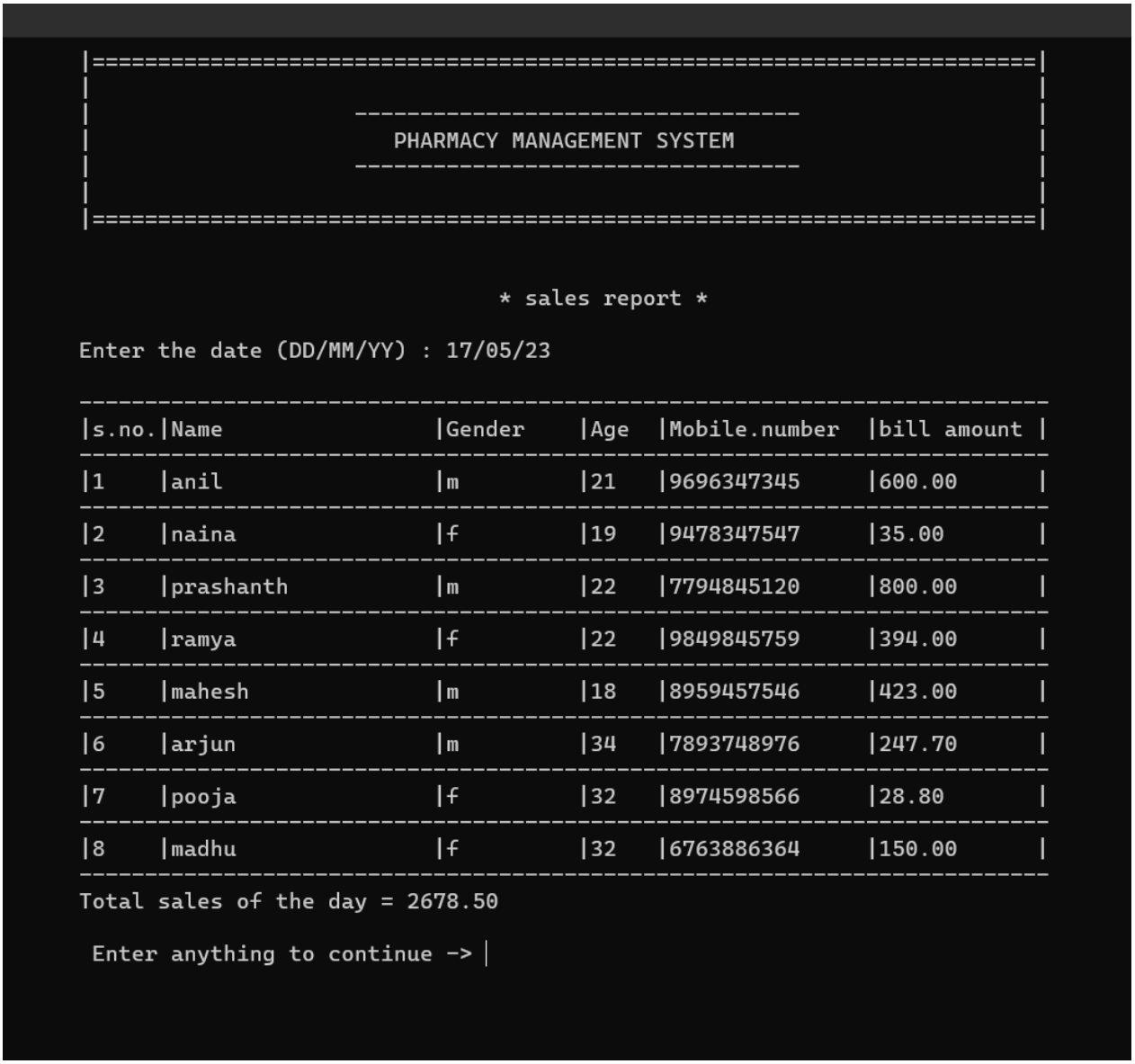


Fig 6:- This figure shows the list of expired medicines



```
|=========================================================================|
|                                                                         |
|                     ---------------------------------                   |
|                        PHARMACY MANAGEMENT SYSTEM                       |
|                     ---------------------------------                   |
|                                                                         |
|=========================================================================|


                                * sales report *

Enter the date (DD/MM/YY) : 17/05/23

-------------------------------------------------------------------------
|s.no.|Name                |Gender    |Age  |Mobile.number  |bill amount |
-------------------------------------------------------------------------
|1    |anil                |m         |21   |9696347345     |600.00      |
-------------------------------------------------------------------------
|2    |naina               |f         |19   |9478347547     |35.00       |
-------------------------------------------------------------------------
|3    |prashanth           |m         |22   |7794845120     |800.00      |
-------------------------------------------------------------------------
|4    |ramya               |f         |22   |9849845759     |394.00      |
-------------------------------------------------------------------------
|5    |mahesh              |m         |18   |8959457546     |423.00      |
-------------------------------------------------------------------------
|6    |arjun               |m         |34   |7893748976     |247.70      |
-------------------------------------------------------------------------
|7    |pooja               |f         |32   |8974598566     |28.80       |
-------------------------------------------------------------------------
|8    |madhu               |f         |32   |6763886364     |150.00      |
-------------------------------------------------------------------------
Total sales of the day = 2678.50

 Enter anything to continue ->
```

Fig 7:- This picture shows the sales report when we enter the date.

THANK YOU