



SZABIST

Course Name: CSC2201 - Computer Organization and Assembly Language

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PROJECT REPORT

Medical Billing System

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1. Introduction

A medicine store management project is a software application or system designed to help manage the daily operations of a medicine store. It can track inventory levels and process orders and sales information. The main goal of a medicine store management project is to improve the efficiency and effectiveness of the store's operations by automating tasks and providing a central location for storing and accessing important data. By using a medicine store management project, store owners and managers can save time and reduce the risk of errors. They can also get a better understanding of their business through the use of data and analytics.

2. Problem Statement

The problem that a medicine store management project aims to solve is the challenge of managing the daily operations of a medicine store efficiently and effectively. This can be a complex and time-consuming task, as it involves managing a large amount of data and performing a variety of tasks, such as tracking inventory levels, processing orders, and sales, and managing customer information. Managing these tasks manually can be inefficient and prone to errors and can also make it difficult to get a clear understanding of the store's performance and operations. This can lead to a range of problems, including lost sales, overstocked or understocked inventory, and frustrated customers. To address these problems, a medicine store management project can provide a centralized and automated solution for managing the store's operations. By automating tasks and providing a central location for storing and accessing data, the project can help store owners and managers to save time, reduce errors, and get a better understanding of their business. This can enable them to serve their customers, improve their bottom line, and run their business more efficiently.

3. Features

- Login Password
- Buy Medicines
- See Medicines Statistics
- Show Amount Earned Today

4. Program Code

```
newline macro
    mov dl,13
    mov ah,2
    int 21h

    mov dl,10
    mov ah,2
    int 21h
endm

.model small
.stack 100h
.data

input_password db 'Please Enter Your Password$'
password       db 'qwerty$'
incorrect_password db 10,13, 'Incorrect Password$'
welcome        db 10,13,10,13, 'WELCOME TO MEDICAL STORE$'
msg1           db 10,13,10,13, 'Choose a Option$'
msg2           db 10,13,10,13, 'What Do You Want To Buy$'

msg_medicines  db 10,13, 'Press 1 to Buy Medicines$'
medicines_sold db 10,13, 'Press 2 to see Medicines Statistics$'
amount_print   db 10,13, 'Press 3 to show Amount Earned Today$'
input_again    db 10,13, 'Please Press one of the above given keys$'
exit_program   db 10,13, 'Press 4 to exit$'
wrong_input    db 10,13, 'Wrong Input$'

opt1           db 10,13, '1. Panadol   -- Rs. 4 $'
opt2           db 10,13, '2. Disprin   -- Rs. 3 $'
opt3           db 10,13, '3. Cleritek  -- Rs. 2 $'
opt4           db 10,13, '4. Aspirin   -- Rs. 2 $'
opt5           db 10,13, '5. Brufen    -- Rs. 1 $'
opt6           db 10,13, '6. Vicks     -- Rs. 5 $'
opt7           db 10,13, '7. Arinac    -- Rs. 4 $'
opt8           db 10,13, '8. Sinopharm -- Rs. 2 $'
opt9           db 10,13, '9. Bandaid   -- Rs. 8 $'
newLine        db 10,13, '$'
msg_quantity   db 10,13, 'Enter Quantity: $'
total_msg      dw 'Total Earned = $'
```

```

amount_earned      db 10,13,'Amount earned = $'

price_Panadol      dw 4
price_Disprin      dw 3
price_Cleritek     dw 2
price_Aspirin      dw 2
price_Brufen       dw 1
price_Vicks        dw 5
price_Arinac       dw 4
price_Sinopharm    dw 2
price_Bandaaid     dw 8

amount             db 0
Panadol_sold       db 0
Disprin_sold       db 0
Cleritek_sold      db 0
Aspirin_sold       db 0
Brufen_sold        db 0
Vicks_sold         db 0
Arinac_sold        db 0
Sinopharm_sold     db 0
Bandaaid_sold      db 0

Panadol_print      db 10,13, 'Panadols sold = $'
Bandaaid_print     db 10,13, 'Bandaaid sold = $'
Sinopharm_print    db 10,13, 'Sinopharm Vaccine sold = $'
Arinac_print       db 10,13, 'Arinac sold = $'
Vicks_print        db 10,13, 'Vicks sold = $'
Aspirin_print      db 10,13, 'Aspirin sold = $'
Brufen_print       db 10,13, 'Brufen sold = $'
Cleritek_print     db 10,13, 'Cleritek sold = $'
Disprin_print      db 10,13, 'Disprin sold = $'

```

```
.code
```

```
main proc
```

```

mov     ax,@data
mov     ds,ax

mov     dx,offset input_password
mov     ah,9
int     21h
newline
mov     bx,offset password

```

```

        mov     cx,6

11:

        mov     ah,1
        int     21h
        cmp     al,[bx]
        jne     incorrect
        inc     bx
        loop    11

start:

        newline
        call    menu
        newline

        mov     ah,1
        int     21h

        cmp     al,'1'
        je      menu2
        cmp     al,'2'
        je      medicines_stats
        cmp     al,'3'
        je      show_amount
        cmp     al,'4'
        je      exit

        mov     dx,offset wrong_input
        mov     ah,9
        int     21h
        mov     dx,offset input_again
        mov     ah,9
        int     21h
        jmp     start

Panadol:

        mov     dx,offset msg_quantity
        mov     ah,9
        int     21h

        newline

        mov     ah,1
        int     21h

```

```

sub     al,48

add     Panadol_sold,al
mul     price_Panadol

add     amount,al
mov     cl,al
newline
mov     dx,offset total_msg
mov     ah,9
int     21h
mov     ax,00h
mov     al,cl
AAM
mov     ch,ah
mov     cl,al

mov     dl,ch
add     dl,48
mov     ah,2
int     21h

mov     dl,cl
add     dl,48
mov     ah,2
int     21h

jmp     start

```

Disprin:

```

mov     dx,offset msg_quantity
mov     ah,9
int     21h

newline

mov     ah,1
int     21h

sub     al,48

add     Disprin_sold,al
mul     price_Disprin

```

```

add     amount,al
mov     cl,al
newline
mov     dx,offset total_msg
mov     ah,9
int     21h

mov     ax,00h
mov     al,cl
AAM
mov     ch,ah
mov     cl,al

mov     dl,ch
add     dl,48
mov     ah,2
int     21h

mov     dl,cl
add     dl,48
mov     ah,2
int     21h

jmp     start

```

Cleritek:

```

mov     dx,offset msg_quantity
mov     ah,9
int     21h

newline

mov     ah,1
int     21h

sub     al,48

add     Cleritek_sold,al
mul     price_Cleritek

add     amount,al
mov     cl,al
newline
mov     dx,offset total_msg

```

```

mov     ah,9
int     21h

mov     ax,00h
mov     al,cl
AAM
mov     ch,ah
mov     cl,al

mov     dl,ch
add     dl,48
mov     ah,2
int     21h

mov     dl,cl
add     dl,48
mov     ah,2
int     21h

jmp     start

```

Aspirin:

```

mov     dx,offset msg_quantity
mov     ah,9
int     21h

newline

mov     ah,1
int     21h

sub     al,48

add     Aspirin_sold,al
mul     price_Aspirin

add     amount,al
mov     cl,al
newline
mov     dx,offset total_msg
mov     ah,9
int     21h

mov     ax,00h

```



```

mov     al,cl
AAM
mov     ch,ah
mov     cl,al

mov     dl,ch
add     dl,48
mov     ah,2
int     21h

mov     dl,cl
add     dl,48
mov     ah,2
int     21h

jmp     start

```

Brufen:

```

mov     dx,offset msg_quantity
mov     ah,9
int     21h

newline

mov     ah,1
int     21h

sub     al,48

add     Brufen_sold,al
mul     price_Brufen

add     amount,al
mov     cl,al
newline
mov     dx,offset total_msg
mov     ah,9
int     21h

mov     ax,00h
mov     al,cl
AAM
mov     ch,ah
mov     cl,al

```

```

mov     dl,ch
add     dl,48
mov     ah,2
int     21h

mov     dl,c1
add     dl,48
mov     ah,2
int     21h

jmp     start

```

Vicks:

```

mov     dx,offset msg_quantity
mov     ah,9
int     21h

newline

mov     ah,1
int     21h

sub     al,48

add     Vicks_sold,al
mul     price_Vicks

add     amount,al
mov     cl,al
newline
mov     dx,offset total_msg
mov     ah,9
int     21h

mov     ax,00h
mov     al,c1
AAM
mov     ch,ah
mov     cl,al

mov     dl,ch
add     dl,48
mov     ah,2

```

```

int      21h

mov      dl,cl
add      dl,48
mov      ah,2
int      21h

jmp      start

```

Arinac:

```

mov      dx,offset msg_quantity
mov      ah,9
int      21h

newline

mov      ah,1
int      21h

sub      al,48

add      Arinac_sold,al
mul      price_Arinac

add      amount,al
mov      cl,al
newline
mov      dx,offset total_msg
mov      ah,9
int      21h

mov      ax,00h
mov      al,cl
AAM
mov      ch,ah
mov      cl,al

mov      dl,ch
add      dl,48
mov      ah,2
int      21h

mov      dl,cl
add      dl,48

```

```

mov     ah,2
int     21h

jmp     start

```

Sinopharm:

```

mov     dx,offset msg_quantity
mov     ah,9
int     21h

newline

mov     ah,1
int     21h

sub     al,48

add     Sinopharm_sold,al
mul     price_Sinopharm

add     amount,al
mov     cl,al
newline
mov     dx,offset total_msg
mov     ah,9
int     21h

mov     ax,00h
mov     al,cl
AAM
mov     ch,ah
mov     cl,al

mov     dl,ch
add     dl,48
mov     ah,2
int     21h

mov     dl,cl
add     dl,48
mov     ah,2
int     21h

jmp     start

```

Bandaaid:

```
mov     dx,offset msg_quantity
mov     ah,9
int     21h
```

newline

```
mov     ah,1
int     21h
```

```
sub     al,48
```

```
add     Bandaaid_sold,al
mul     price_Bandaaid
```

```
add     amount,al
mov     cl,al
```

newline

```
mov     dx,offset total_msg
mov     ah,9
int     21h
```

```
mov     ax,00h
mov     al,cl
AAM
mov     ch,ah
mov     cl,al
```

```
mov     dl,ch
add     dl,48
mov     ah,2
int     21h
```

```
mov     dl,cl
add     dl,48
mov     ah,2
int     21h
```

```
jmp     start
```

show_amount:

```
mov     dx,offset amount_earned
```

```

        mov     ah,9
        int     21h
        mov     ax,00h
        mov     al,amount

AAM
        mov     ch,ah
        mov     cl,al

        mov     dl,ch
        add     dl,48
        mov     ah,2
        int     21h

        mov     dl,cl
        add     dl,48
        mov     ah,2
        int     21h

        jmp     start

incorrect:

        mov     dx,offset incorrect_password
        mov     ah,9
        int     21h
        jmp     exit

exit:

        mov     ah,4ch
        int     21h

main endp

menu proc

        mov     dx,offset welcome
        mov     ah,9
        int     21h

        mov     dx,offset msg1
        mov     ah,9
        int     21h

        mov     dx,offset msg_medicines

```

```

        mov     ah,9
        int     21h

        mov     dx,offset medicines_sold
        mov     ah,9
        int     21h

        mov     dx,offset amount_print
        mov     ah,9
        int     21h

        mov     dx,offset exit_program
        mov     ah,9
        int     21h

        ret

menu endp

menu2 proc

        mov     dx,offset msg2
        mov     ah,9
        int     21h

        mov     dx,offset opt1
        mov     ah,9
        int     21h

        mov     dx,offset opt2
        mov     ah,9
        int     21h

        mov     dx,offset opt3
        mov     ah,9
        int     21h

        mov     dx,offset opt4
        mov     ah,9
        int     21h

        mov     dx,offset opt5
        mov     ah,9
        int     21h

```

```

mov     dx,offset opt6
mov     ah,9
int     21h

mov     dx,offset opt7
mov     ah,9
int     21h

mov     dx,offset opt8
mov     ah,9
int     21h

mov     dx,offset opt9
mov     ah,9
int     21h

newline

mov     ah,1
int     21h

cmp     al,'1'
je      Panadol
cmp     al,'2'
je      Disprin
cmp     al,'3'
je      Cleritek
cmp     al,'4'
je      Aspirin
cmp     al,'5'
je      Brufen
cmp     al,'6'
je      Vicks
cmp     al,'7'
je      Arinac
cmp     al,'8'
je      Sinopharm
cmp     al,'9'
je      Bandaïd

ret

```

menu2 endp

medicines_stats proc

```
    mov     dx,offset Panadol_print
    mov     ah,9
    int     21h

    mov     dl,Panadol_sold
    mov     ax,00h
    mov     al,dl
    AAM
    mov     ch,ah
    mov     cl,al

    mov     dl,ch
    add     dl,48
    mov     ah,2
    int     21h

    mov     dl,cl
    add     dl,48
    mov     ah,2
    int     21h

    mov     dx,offset Disprin_print
    mov     ah,9
    int     21h

    mov     dl,Disprin_sold
    mov     ax,00h
    mov     al,dl
    AAM
    mov     ch,ah
    mov     cl,al

    mov     dl,ch
    add     dl,48
    mov     ah,2
    int     21h

    mov     dl,cl
    add     dl,48
    mov     ah,2
    int     21h
```

```

mov     dx,offset Cleritek_print
mov     ah,9
int     21h

mov     dl,Cleritek_sold
mov     ax,00h
mov     al,dl
AAM
mov     ch,ah
mov     cl,al

mov     dl,ch
add     dl,48
mov     ah,2
int     21h

mov     dl,cl
add     dl,48
mov     ah,2
int     21h

mov     dx,offset Aspirin_print
mov     ah,9
int     21h

mov     dl,Aspirin_sold

mov     ax,00h
mov     al,dl
AAM
mov     ch,ah
mov     cl,al

mov     dl,ch
add     dl,48
mov     ah,2
int     21h

mov     dl,cl
add     dl,48
mov     ah,2
int     21h

mov     dx,offset Brufen_print
mov     ah,9

```

```

int      21h

mov      dl,Brufen_sold
mov      ax,00h
mov      al,dl
AAM
mov      ch,ah
mov      cl,al

mov      dl,ch
add      dl,48
mov      ah,2
int      21h

mov      dl,cl
add      dl,48
mov      ah,2
int      21h

mov      dx,offset Arinac_print
mov      ah,9
int      21h

mov      dl,Arinac_sold
mov      ax,00h
mov      al,dl
AAM
mov      ch,ah
mov      cl,al

mov      dl,ch
add      dl,48
mov      ah,2
int      21h

mov      dl,cl
add      dl,48
mov      ah,2
int      21h

mov      dx,offset Bandaaid_print
mov      ah,9
int      21h

mov      dl,Bandaaid_sold

```

```

mov     ax,00h
mov     al,dl
AAM
mov     ch,ah
mov     cl,al

mov     dl,ch
add     dl,48
mov     ah,2
int     21h

mov     dl,cl
add     dl,48
mov     ah,2
int     21h

mov     dx,offset Sinopharm_print
mov     ah,9
int     21h

mov     dl,Sinopharm_sold
mov     ax,00h
mov     al,dl
AAM
mov     ch,ah
mov     cl,al

mov     dl,ch
add     dl,48
mov     ah,2
int     21h

mov     dl,cl
add     dl,48
mov     ah,2
int     21h

jmp     start

ret

```

```

medicines_stats endp
end main

```

5. Output

```
Please Enter Your Password  
qwerty
```

```
WELCOME TO MEDICAL STORE
```

```
Choose a Option  
Press 1 to Buy Medicines  
Press 2 to see Medicines Statistics  
Press 3 to show Amount Earned Today  
Press 4 to exit  
_
```

```
1
```

```
What Do You Want To Buy
```

```
1. Panadol    -- Rs. 4  
2. Disprin   -- Rs. 3  
3. Cleritek  -- Rs. 2  
4. Aspirin   -- Rs. 2  
5. Brufen    -- Rs. 1  
6. Vicks     -- Rs. 5  
7. Arinac    -- Rs. 4  
8. Sinopharm -- Rs. 2  
9. Bandaid   -- Rs. 8
```

```
1
```

```
Enter Quantity:  
Total Earned = 20
```

```
2
```

```
Panadols sold = 05  
Disprin sold = 00  
Cleritek sold = 00  
Aspirin sold = 00  
Brufen sold = 00  
Arinac sold = 00  
Bandaid sold = 00  
Sinopharm Vaccine sold = 00
```

```
3
```

```
Amount earned = 20
```