# A MINI PROJECT REPORT ON HOSPITAL MANAGEMENT

Submitted to Mumbai University

In the partial fulfillment of the requirement for the award of the degree of

**Bachelor of Engineering** 

In

**COMPUTER ENGINEERING** 

By

Mr. Manzar Shaikh (16CO50)

Under the guidance of Mr. Muhammed Salman Shamsi

**Assistant Professor** 



Department of Computer Engineering Anjuman-I-Islam Kalsekar Technical Campus Affiliated to Mumbai University

KHANDA GOAN, NEW PANVEL, NAVI MUMBAI, MAHARASHTRA 2017-2018

# Department of Computer Engineering Anjuman-I-Islam Kalsekar Technical Campus Affiliated to Mumbai University

KHANDA GOAN, NEW PANVEL, NAVI MUMBAI, MAHARASHTRA 2017-2018



# **DECLARATION BY THE CANDIDATE**

Shaikh Manzar bearing Roll number: 16CO50, hereby declare that the mini project report entitled "Hospital Management", is a record of bonafide work carried out by me and the results embodied in this project have not been reproduced or copied from any source. The results of this project report have not been submitted to any other University or Institute for the award of any other Degree or Diploma.

Shaikh Manzar (16CO50)

# Department of Computer Engineering Anjuman-I-Islam Kalsekar Technical Campus Affiliated to Mumbai University

KHANDA GOAN, NEW PANVEL, NAVI MUMBAI, MAHARASHTRA 2017-2018



# **CERTIFICATE**

This is to certify that the project report entitled "Hospital Management", submitted by Mr. Shaikh Manzar, bearing Roll. No.: 16CO50 in the partial fulfillment of the requirements for the award of the degree of Bachelor of Computer Engineering is a record of bonafide work carried out by him.

Course Owner
(Assit. Prof. Muhammed Salman Shamsi)

# **INDEX**

## **CONTENTS**

CHAPTER 1: INTRODUCTION	
1.1 Introduction	1
1.2 Scope	2
1.3 Problem Statement	2
CHAPTER 2 SYSTEM SPECIFICATION	
2.1 System Requirement	3
CHAPTER 3: SYSTEM IMPLEMENTATION	I
3.1 Modules in the System	4
3.2 Code	5
CHAPTER 4: RESULTS	
4.1 Screen Shots	15
CHAPTER 5: CONCLUSION	
5.1 Conclusion	20
DEFEDENCES	20

#### INTRODUCTION.

The project Hospital Management system includes registration of patients, storing their details into the system, and also computerized billing in the pharmacy, and labs. The software has the facility to give a unique id for every patient and stores the details of every patient and the staff automatically. It includes a search facility to know the current status of each room. User can search availability of a doctor and the details of a patient using the id.

The Hospital Management System can be entered using a username and password. It isaccessible either by an administrator or receptionist. Only they can add data into the database. The data can be retrieved easily. The interface is very user-friendly. The data are well protected for personal use and makes the data processing very fast.

Hospital Management System is powerful, flexible, and easy to use and is designed anddeveloped to deliver real conceivable benefits to hospitals.

Hospital Management System is designed for multispeciality hospitals, to cover a wide range ofhospital administration and management processes. It is an integrated end-to-end HospitalManagement System that provides relevant information across the hospital to support effectivedecision making for patient care, hospital administration and critical financial accounting, in aseamless flow.

Hospital Management System is a software product suite designed to improve the quality andmanagement of hospital management in the areas of clinical process analysis and activity-basedcosting. Hospital Management System enables you to develop your organization and improve itseffectiveness and quality of work. Managing the key processes efficiently is critical to thesuccess of the hospital helps you manage your processes.

#### • SCOPE:

- 1.Information about Patients is done by just writing the Patients name, Illness and contain their UNIQUE ID .Whenever the Patient comes up his information is stored freshly.
- 2.Bills are generated by recording price for each facility provided to Patient on a separate sheet and at last they all are summed up.
- 3. Diagnosis information to patients is generally recorded on the document, which contains Patient information. It is destroyed after some time period to decrease the paper load in the office.
- 4.Immunization records of children are maintained in pre-formatted sheets, which are keptin a file.
- 5.Information about various diseases is not kept as any document. Doctors themselves dothis job by remembering various medicines.

#### • PROBLEM STATEMENT:

To keep Record of all patients when they are checking IN. The Original Information is added into file and it will store data permantly. Each record of patient will display Name of that patient, illnes of that patient and also will give them a unique ID for further records checking. Only admin can login and can Insert or Modify Record. Patient can acces their Record and Other also but they cannot insert or modify record.

# **SYSTEM REQUIREMENTS:-**

- SOFTWARE: (REQUIRED AS PER OPERATING SYSTEM)
- 1. Windows:

Dev CPP Turbo C

2. Linux :

Geany

• HARDWARE REQUIREMENTS :

PROCESSOR: Intel Dual Core or Equivalent (>1.40GHz)

RAM : 256MB

HARD DISK : 2GB OF FREE SPACE REQUIRED

#### SYSTEM IMPLEMENTATION

#### **MODULE:**

- 1. Admin login.
- 2. User Entry.

# Admin login:-

# It is the most powerful user of the system.

- There will be only one admin into the system.
- The admin can create and manage all other user accounts. He / she can delete any account according to need.
- The admin can monitor all the activities of the hospital. Whatever is going on into the hospital, will be available in the admin panel.

## **USER Entry:-**

- User can see all record and can also insert any data.
- Can check data of all patient .
- Cannot modify or upadate account.

#### • CODE:

```
/*
Project Title: Hospital Management.
Project Created By:
Shaikh Manzar <16CO50>
Mulla Shoaib <16CO42>
Pathan Yunus <16CO43>
Project Createn On 20/10/2017.
*/
#include<stdio.h>
#include<stdlib.h>
#include<string.h>
#define max 50
float TotalAmount=0;
typedef struct hm{ //declaration of structure
  char name[20];
  int age;
  int priority;
  int patientUniqueID;
  struct hm *next;
}node;
void CDP(){
FILE *fp;
fp=fopen("Data.txt","a");
fprintf(fp,"\n\tSomeone Check's Type Of Disease Healed in Aiktc Hospital\n");
fclose(fp);
printf("\n\n");
  printf("Priority\t\tDisease Name\n");
  printf("1\t\tHeart Attack\n");
  printf("2\t\tKidney Failure\n");
  printf("3\t\t\Brain Disease\n");
  printf("4\t\tBone Fracture\n");
  printf("5\t\tMalaria\n");
  printf("6\t\t\Dengue\n");
  printf("7\t\tTyphoid\n");
  printf("8\t\tFever\n");
  printf("9\t\tHead Ache\n");
  printf("10\t\t\tStomach Ache\n");
  printf("\n\n");
}//cdp end
```

```
int fill(){
printf("\n\n");
      int choice;
      while(1){
      printf("\t\tEnter choice\n");
  printf("\t\t1.Heart Attack\n");
  printf("\t\t2.Kidney Failure\n");
  printf("\t\t3.Brain Disease\n");
  printf("\t\t4.Bone Fracture\n");
  printf("\t\t5.Malaria\n");
  printf("\t\t6.Dengue\n");
  printf("\t\t7.Typhoid\n");
  printf("\t\t8.Fever\n");
  printf("\t\t9.Head Ache\n");
  printf("\t\t10.Stomach Ache\n");
  scanf("%d",&choice);
printf("\n\n");
  if(choice>10)
            printf("\t\twrong input...please enter again\n");
      else
  return choice;
}//fill end
void display(node *head){
FILE *fp;
fp=fopen("Data.txt","a");
fprintf(fp,"\n\tSomeone Check's All Patient Detail\n");
fclose(fp);
printf("\n\n");
      node *p;
      int x;
      printf("UNIQUE ID\tNAME\tAGE\tDISEASE\n");
      for(p=head;p!=NULL;p=p->next){
            printf("%d\t\t",p->patientUniqueID);
            printf("%s\t",p->name);
            printf("%d\t",p->age);
            x=p->priority;
            switch(x){
                   case 1:printf("Heart Attack\t");
                   break;
                   case 2:printf("Kidney Failure\t");
                   case 3:printf("Brain Disease\t");
                   break;
```

```
case 4:printf("Bone Fracture\t");
                 break;
                 case 5:printf("Malaria\t");
                 break;
                 case 6:printf("Dengue\t");
                 break;
                 case 7:printf("Typhoid\t");
                 break;
                 case 8:printf("Fever\t");
                 break;
                 case 9:printf("Head Ache\t");
                 break;
                 case 10:printf("Stomach Ache\t");
                 break;
           printf("\n");
      }
     printf("\n\n");
}//diplay end here
node *AddPatient(node *head){
char disease[15];
FILE *fp;
fp=fopen("Data.txt","a");
printf("\n\n");
     node *p,*temp;
      p=(node*)malloc(sizeof(node));
      int x,y,num;
      temp=head;
      p->next=NULL;
        if(temp==NULL){
        fprintf(fp,"New Day\n\tUniqueID\tName\tAge\tDisease\n\n");
        fclose(fp);
while(1){
      printf("ENTER TODAYS DATE AND MONTH....UNIQUE NO WILL
GENERATE AUTOMATICALLY\n");
      scanf("%d",&num);
  if(num/10000==0)
    break;
  else
    printf("WRONG FORMAT...Please Enter Again\n");
}
      printf("ENTER PATIENT NAME\n");
      scanf("%s",p->name);
      printf("ENTER PATIENT AGE\n");
      scanf("%d",&x);
```

```
num=(num*100)+x;
  p->patientUniqueID=num;
      p->age=x;
      printf("ENTER CHOICE (WITH HIGHEST PRIORITY ON TOP AND
LOWEST ON BOTTOM)\n");
      y=fill();
      p->priority=y;
switch(y){
      case 1:fp=fopen("Data.txt","a");
          fprintf(fp,"\n\t%d\t\t%s\t%d\tHeart Attack......Added\n",p-
>patientUniqueID,p->name,p->age);
          fclose(fp);
                     break;
                  case 2:fp=fopen("Data.txt","a");
          fprintf(fp,"\n\t%d\t\t%s\t%d\tKidney Failure......Added\n",p-
>patientUniqueID,p->name,p->age);
          fclose(fp);
                     break:
                  case 3:fp=fopen("Data.txt","a");
          fprintf(fp,"\n\t%d\t\t%s\t%d\tBrain Disease......Added\n",p-
>patientUniqueID,p->name,p->age);
          fclose(fp);
                     break;
                  case 4:fp=fopen("Data.txt","a");
          fprintf(fp,"\n\t%d\t\t%s\t%d\tBone Fracture......Added\n",p-
>patientUniqueID,p->name,p->age);
          fclose(fp);
                     break:
                  case 5:fp=fopen("Data.txt","a");
          fprintf(fp,"\n\t%d\t\t%s\t%d\tMalaria.....Added\n",p-
>patientUniqueID,p->name,p->age);
          fclose(fp);
                     break:
                  case 6:fp=fopen("Data.txt","a");
          fprintf(fp,"\n\t%d\t\t%s\t%d\tDengue......Added\n",p-
>patientUniqueID,p->name,p->age);
          fclose(fp);
                     break;
                  case 7:fp=fopen("Data.txt","a");
          fprintf(fp,"%d\t\t%s\t%d\tTyphoid......Added\n\t",p-
>patientUniqueID,p->name,p->age);
          fclose(fp);
                     break;
                  case 8:fp=fopen("Data.txt","a");
          fprintf(fp,"\n\t%d\t\t%s\t%d\tFever.....Added\n",p-
>patientUniqueID,p->name,p->age);
          fclose(fp);
                     break;
```

```
case 9:fp=fopen("Data.txt","a");
          fprintf(fp,"\n\t%d\t\t%s\t%d\tHead Ache.....Added\n",p-
>patientUniqueID,p->name,p->age);
          fclose(fp);
                      break;
                  case 10:fp=fopen("Data.txt","a");
          fprintf(fp,"\n\t%d\t\t%s\t%d\tStomach Ache.....Added\n",p-
>patientUniqueID,p->name,p->age);
          fclose(fp);
                      break;
}
printf("\n\n");
      if(head==NULL || y<head->priority){
            p->next=head;
            head=p;
            return head;
      }
      else{
            while(temp->next!=NULL && y>temp->next->priority)
                  temp=temp->next;
            p->next=temp->next;
            temp->next=p;
  }
      return head;
}
int NoOfPatient(node *head){
FILE *fp;
fp=fopen("Data.txt","a");
fprintf(fp,"\n\tSomeone Check's Number Of Patient Present In Aiktc Hospital\n");
fclose(fp);
printf("\n\n");
node *p;
int x=0;
for(p=head;p!=NULL;p=p->next){
x++;
printf("\n\n");
return x;
}
void FirstTen(node *head){
FILE *fp;
fp=fopen("Data.txt","a");
fprintf(fp,"\n\tSomeone Check's First 10 Series Patient in Aiktc Hospital\n");
fclose(fp);
```

```
printf("\n\n");
node *p;
int i,x;
      for(p=head;p!=NULL;p=p->next){
            printf("%d\t\t",p->patientUniqueID);
            printf("%s\t",p->name);
            printf("%d\t",p->age);
            x=p->priority;
            switch(x){
                   case 1:printf("Heart Attack\t");
                   break;
                   case 2:printf("Kidney Failure\t");
                   break;
                   case 3:printf("Brain Disease\t");
                   break;
                   case 4:printf("Bone Fracture\t");
                   break;
                   case 5:printf("Malaria\t");
                   break;
                   case 6:printf("Dengue\t");
                   break;
                   case 7:printf("Typhoid\t");
                   break;
                   case 8:printf("Fever\t");
                   break;
                   case 9:printf("Head Ache\t");
                   break;
                   case 10:printf("Stomach Ache\t");
                   break;
            }
            printf("\n");
    i++;
    if(i>10)
       break;
printf("\n\n");
int AmountPaid(int no){
printf("\n\n");
switch(no){
case 1:printf("Your Amount for Heart Attack is 69000/-\n");
return(69000);
case 2:printf("Your Amount for Kidney Failure is 52000/-\n");
return(52000);
case 3:printf("Your Amount for Brain Disease is 48000/-\n");
return(48000);
```

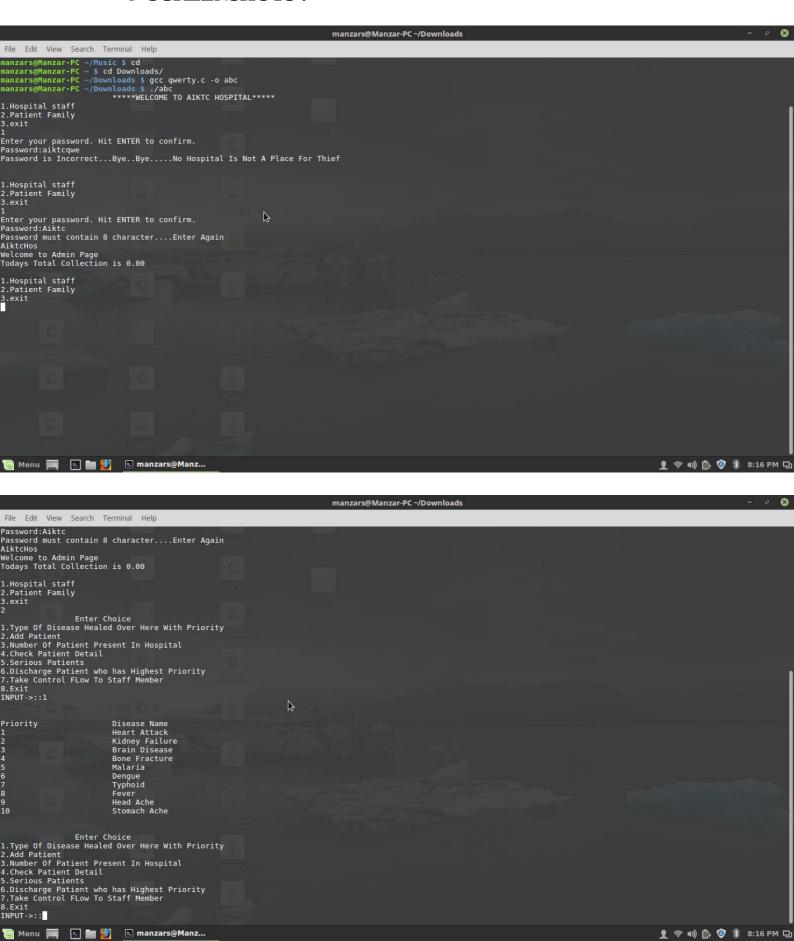
```
case 4:printf("Your Amount for Bone Fracture is 39000/-\n");
return(39000);
case 5:printf("Your Amount for Malaria is 30000/-\n");
return(30000);
case 6:printf("Your Amount for Dengue is 26000/-\n");
return(26000);
case 7:printf("Your Amount for Typhoid is 18000/-\n");
return(18000);
case 8:printf("Your Amount for Fever is 12000/-\n");
return(12000);
case 9:printf("Your Amount for Head Ache is 3000/-\n");
return(3000);
case 10:printf("Your Amount for Stomach Ache is 1000/-\n");
return(1000);
}
}
node *DischargeHighestPriority(node *head){
FILE *fp;
printf("\n\n");
node *p;
int no,conf,x;
float tax, sum;
int opt;
p=head;
printf("Discharged Patient is\n");
printf("%d\t\t",p->patientUniqueID);
            printf("%s\t",p->name);
            printf("%d\t",p->age);
            x=p->priority;
            switch(x){
                   case 1:printf("Heart Attack\t");
                   break:
                   case 2:printf("Kidney Failure\t");
                   break;
                   case 3:printf("Brain Disease\t");
                   break;
                   case 4:printf("Bone Fracture\t");
                   break;
                   case 5:printf("Malaria\t");
                   break;
                   case 6:printf("Dengue\t");
                   break:
                   case 7:printf("Typhoid\t");
                   break;
                   case 8:printf("Fever\t");
                   break;
```

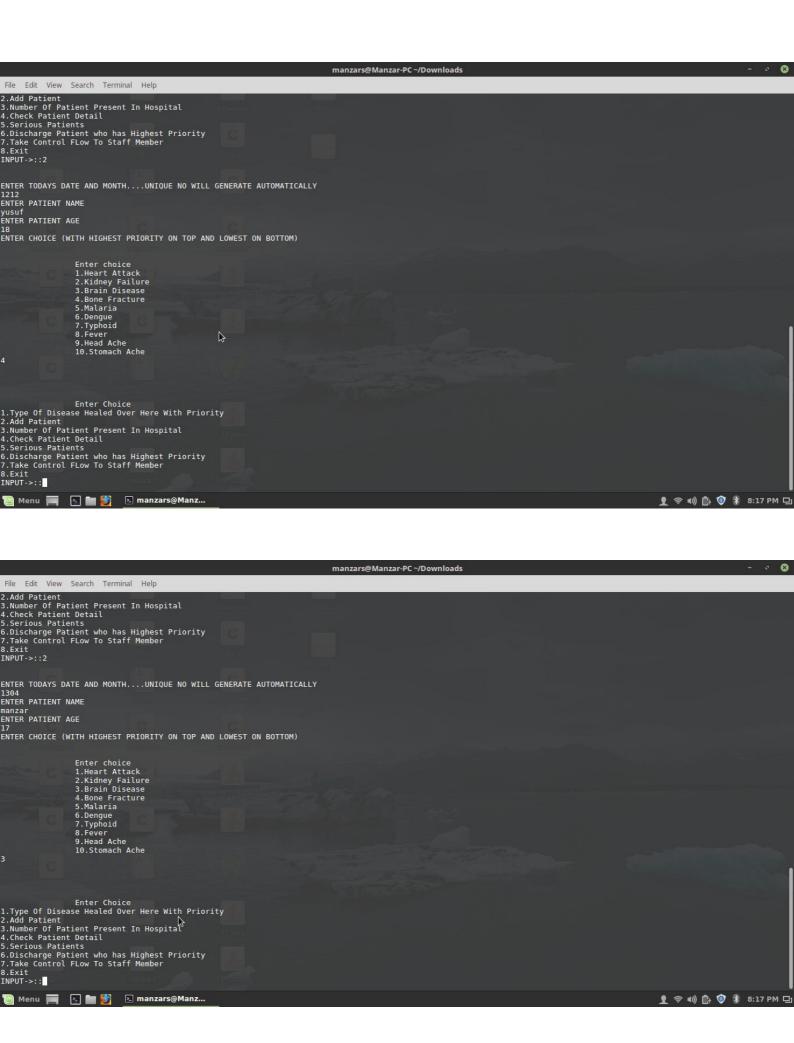
```
case 9:printf("Head Ache\t");
                  break;
                  case 10:printf("Stomach Ache\t");
                  break;
            }
            printf("\n");
no=AmountPaid(x);
printf("\n\n");
tax=no*18/100;
sum=no+tax;
printf("Your Total Amount is \%d + \%.2f(18 \text{ percent G.S.T}) = \%.2f \n",no,tax,sum);
printf("Do You Want To pay %.2f\n1 for yes and 0 for no\n",sum);
scanf("%d",&opt);
  if(opt==1){
  printf("Enter Patient Unique ID\n");
    while(1){
      scanf("%d",&conf);
      if(conf==p->patientUniqueID){
         fp=fopen("Data.txt","a");
         fprintf(fp,"\n\tUniqueID(%d) Named %s Has Been Discharged with Amount
%f Paid Sucessfully\n\n",p->patientUniqueID,p->name,sum);
         fclose(fp);
         printf("Payment Successfull\n");
         TotalAmount=TotalAmount+sum;
         head=head->next;
         free(p);
         return head;
      }
      else{
         printf("Unique ID not match.....Enter Again\n");
      }
    }
  }
else{
         fp=fopen("Data.txt","a");
         fprintf(fp,"\n\tSomeone Tried To Discharge %s With UniqueID:%d....But
DisCharge Uncessfull\n\t",p->name,p->patientUniqueID);
         fclose(fp);
printf("Patient will Not Discharge Until Cash Paid\n");
return head;
}
}
void MyAdmin(){
FILE *fp;
int i=0;
```

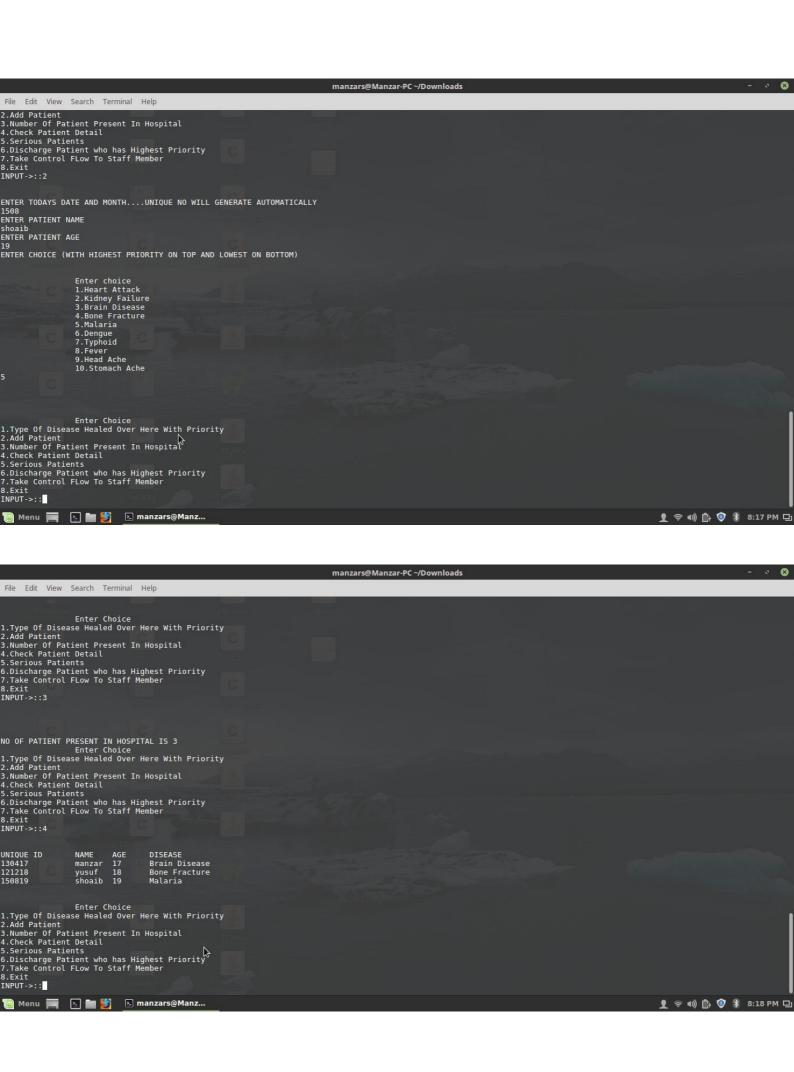
```
char ch;
char password[10],recovery[8]={'A','i','k','t','c','H','o','s'};
printf("Enter your password. Hit ENTER to confirm.\n");
      printf("Password:");
while(1){
scanf("%s",password);
if(strlen(password)==8){ //Staff Must Enter "AiktcHos" (case sensitive)
break;
}
else{
printf("Password must contain 8 character....Enter Again\n");
i=0;
}
}
for(i=0;i<8;i++){
if(password[i]!=recovery[i])
break;
}
i--;
if(i==7){
         fp=fopen("Data.txt","a");
         fprintf(fp,"\n\tOne Staff Member has Visited Admin....And Total Amount
Collected Was %f\n\n",TotalAmount);
         fclose(fp);
printf("Welcome to Admin Page\n");
printf("Todays Total Collection is %.2f",TotalAmount);
printf("\n\n");
else{
         fp=fopen("Data.txt","a");
         fprintf(fp,"\n\tSomeone's Enter Wrong Password In Admin\n");
         fclose(fp);
printf("Password is Incorrect...Bye...Bye....No Hospital Is Not A Place For Thief\n");
printf("\n\n");
}
}
int main(){
  int choice,no,count=0,firstchoice;
  node *head;
  head=NULL;
  printf("\t\t\t*****WELCOME TO AIKTC HOSPITAL****\n");
while(1){
printf("1.Hospital staff\n2.Patient Family\n3.exit\n");
scanf("%d",&firstchoice);
switch(firstchoice){
case 1:MyAdmin();
```

```
break;
case 2:while(1){
    printf("\t\tEnter Choice\n");
    printf("1.Type Of Disease Healed Over Here With Priority\n2.Add
Patient\n3.Number Of Patient Present In Hospital\n4.Check Patient Detail\n5.Serious
           \n6.Discharge Patient who has Highest Priority\n7.Take Control FLow To
Patients
Staff Member\n8.Exit\n");
    printf("INPUT->::");
    scanf("%d",&choice);
    switch(choice){
      case 1:CDP();
      break;
      case 2:
          if(count<=max){</pre>
          head=AddPatient(head);
          count++;
          }
          else
           printf("No More Beds Available.....Maximum Number of Patient In
Hospital Is %d\n",max);
      break;
      case 3:no=NoOfPatient(head);
      printf("NO OF PATIENT PRESENT IN HOSPITAL IS %d\n",no);
      break;
      case 4:display(head);
      break;
      case 5:if(count>9){
             printf("Here Are The 10 Patient\n");
             FirstTen(head);
           }
           else{
             printf("There are Only %d patient present in Hospital...Come Again
When Hospital Got Some Popularity\n",count);
           }
           break;
      case 6:head=DischargeHighestPriority(head);
          count--;
          break;
      case 7:MyAdmin();
      case 8:exit(0);
    }
case 3:exit(0);
}
}
}
```

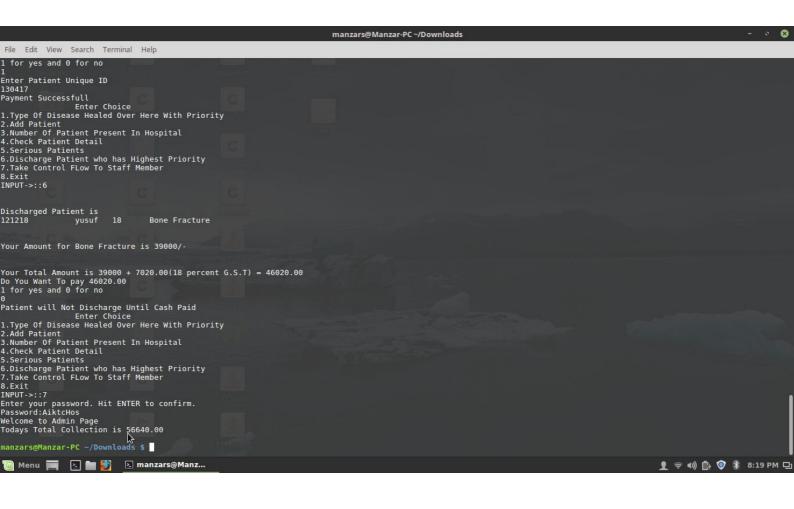
#### • SCREENSHOTS:



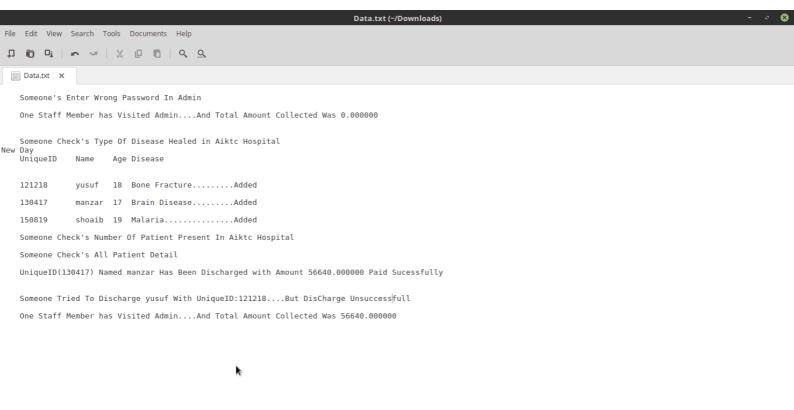








#### **LOCAL DATABASE:**



Plain Text ➤ Tab Width: 4 ➤ Ln 25, Col 85 INS

# **Conlusion:**

Nowadays the entry of record is becoming diffcult on register and anyone could access data and modify it .Register book is diffcult maintain and manage . Can be easily be damaged or destroyed.

But with the help of program we could all this above inconvenience.

- Can be run on any Computer.
- It will store all data on computer as a Database.
- Can be accessed only by the Admin alse by patient.

## • REFERENCE:

www.mycodeschool.com