HOSPITAL MANAGEMENT

USING C- PROGRAM

Submitted to,

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INTRODUCTION

- The hospital management system (HMS) is an integrated software that handles different directions of clinic workflows.
- Here, we are integrating physical management with software using C language.
- The information of patients, disease-related information with appointment time, personal details etc. can be saved and accessed at anytime.
- It is a very simple project based on file handling for storing the data.
- This is a somewhat long but simple mini project in C programming language.

BRIEF INFORMATION ABOUT THE PROJECT

- Hospital management system project is just a console application without graphics.
- A Simple C Program For Hospital Management System creates an external file to store the user's data permanently.
- Talking about the features of this Hospital Management System in C, the user can perform the CRUD (Create, Read, Retrieve, Update and Delete) operations to it.

USE OF C-PROGRAM IN HOSPITAL MANAGEMENT

- CRUD operations which means to “CREATE, READ, UPDATE and DELETE” are performed using C.
- Like, add patient details by entering his/her name, disease name, phone number, cabin number, etc.
- The user can also view and search all the available patient record details such as a patient’s name, age, disease, cabin number etc.. by giving any key inputs.
- The user can also able to edit information as well as remove a patient's whole record or only his/her name, phone number, disease name, cabin number.

ALGORITHM

- Initialized all the variables and declared variables type, size etc., used in the program
- Displayed prompt statements using printf () to choose the required options.
- Scanf() is used to let the user to provide inputs.
- The choice of the user is read and respective action is performed by the executing the program.
- The patient’s information is added, deleted, updated or edited as per the input given.
- Written IF statements for conditional based logic.
- For loops used in program to perform repetitive iterations.
- Used gets() and puts() to read and fetch the data from input window and to display the data or string to the output window.
- Return 0 to exit the program.

CODE

```
#include<stdio.h>
#include<string.h>
struct ad
{
    char name[30];
    char disease[30];
    int cabin,phone,age;
} x[100];
int n,i,j=0,a=0,sum=0,g,flag,num;
void read();
void add();
void view();
void search();
void edit();
void del();
void show();
int main()
{
    read();
    int c,i,q;
   printf("Simple Hospital Management System\n");
    int m,n;
```

```
//making out the pattern

    for(m=1; m<=4; m++)
    {
        for(n=1; n<=5; n++)
            printf(" ");
        for(n=1; n<=m-1; n++)
        {
            printf(" ");
        }
        for(n=1; n<=4-m+1; n++)
        {
            if(n==4-m+1 || m==1 || m==4)
                printf("*");
            else
                printf(" ");
        }
        for(n=1; n<=4-m+1; n++)
        {
            if(n==1 ||m==1 || m==4)
                printf("*");
            else
                printf(" ");
        }
        printf("\n");
    }
```

```
while(c!=6)
   {

      printf("**Enter your choice**\n\n1. Add Information\n2. View Information\n3. Search\n4. Edit Information\n5. Delete
Information\n6. Exit\n\nOption=");
      scanf("%d",&c);//choice for option
      fflush(stdin);//making it clear
      if(c==1)//add
      {
         system("cls");
         add();
      }
      else if(c==2)//view
      {
         system("cls");
         view();
      }
      else if(c==3)//search
      {
         system("cls");
         search();
      }
      else if(c==4)//edit
      {
         system("cls");
         edit();
      }
```

```
else if(c==5)//delete
        {
           system("cls");
           del();
        }
        else if(c==6)
        {
           write();
           return 0;
        }
        else
        {
           system("cls");
           printf("\n\nInvalid input , try again by using valid inputs");
        }
        printf("\n\n");
    }
}
void add()
{
    printf("\n\n");
    printf("Already data inputed on the database =%d\n\n",num);//how many inputs
    printf("How many entry do you want to add=\n");
    scanf("%d",&n);
    sum=n+num;
```

```
for(i=num,j=0; i<sum; i++)
    {
        printf("\n");
        fflush(stdin);
        printf("Enter patient's Name = ");
        gets(x[i].name);
        fflush(stdin);
        printf("Enter disease = ");
        gets(x[i].disease);
        fflush(stdin);
        printf("Enter the age = ");
        scanf("%d",&x[i].age);
        fflush(stdin);
        printf("Enter cabin no = ");
        scanf("%d",&x[i].cabin);
        fflush(stdin);
        printf("Enter phone number = ");
        scanf("%d",&x[i].phone);
        fflush(stdin);
        printf("\n");
        j++;
        a++;
        num++;
    }
}
```

```
void view()
{
    for(i=0; i<num; i++)
    {
        printf("\n");
        printf("Serial Number=%d\n",i);
        printf("Name = ");
        puts(x[i].name);
        printf("Disease = ");
        puts(x[i].disease);
        printf("Cabin no = %d\nPhone number = 0%d\nAge=%d",x[i].cabin,x[i].phone,x[i].age);
        printf("\n\n");
    }
}
void edit()
{
    int q,p;
    fflush(stdin);
    printf("What do you want to edit ?\n");
    printf("Enter your option\n");
    printf("1.Name\n2.Disease\n3.Age\n4.Cabin\n5.Phone no.\n");
    printf("Option=");
    scanf("%d",&q);//option
    if(q<=5)
    {
```

```
printf("Enter the serial no of that patient= (0 - %d)=",num-1);
        scanf("%d",&p);//serial number
        if(p<num)
        {
           if(q==1)
           {
              fflush(stdin);
              printf("Enter the new name=");
              gets(x[p].name);

           }
           else if(q==2)
           {
              fflush(stdin);
              printf("Enter the new Disease=");
              gets(x[p].disease);
           }
           else if(q==3)
           {
              fflush(stdin);
              printf("Enter the new Age=");
              scanf("%d",&x[p].age);
           }
```

```
else if(q==4)
           {
              fflush(stdin);
              printf("Enter the new Cabin no=");
              scanf("%d",&x[p].cabin);
           }

           else if(q==5)
           {
              fflush(stdin);
              printf("Enter the new Phone no =");
              scanf("%d",&x[p].phone);
           }
        }
        else
        {
           printf("\n\nInvalid Serial \nTry Again !!\n\n");
        }
     }
     else
     {
        printf("\n\nInvalid option\nTry Again!!\n\n");
     }
}
```

```
void search()
{
   int s,h,f;
   char u[100];
   printf("By what do you want to search ?\n");
   printf("1.Serial no.\n2.Name\n3.Disease\n4.Cabin
no.\n5.Phone no.\n6.Age\n\nOption = ");
   scanf("%d",&h);
   if(h==1)
   {
      printf("Enter Serial number of the patient=");
      scanf("%d",&s);
      if(s<num)
      {
         printf("\n");
         printf("Serial Number=%d\n",s);
         printf("Name = ");
         puts(x[s].name);
         printf("Disease = ");
         puts(x[s].disease);
         printf("Cabin no = %d\nPhone number =
0%d\nAge = %d",x[s].cabin,x[s].phone,x[s].age);
         printf("\n\n");
      }
      else
         printf("\n\nNot Found\n\n");
}
   else if(h==2)//problem is here.....
   {
      int f=1;
      fflush(stdin);
      printf("Enter your name=");
      gets(u);
      fflush(stdin);
      for(g=0; g<num; g++)
      {
         if(strcmp(u,x[g].name)==0)
         {
            printf("\n");
            printf("Serial Number=%d\n",g);
            printf("Name = ");
            puts(x[g].name);
            printf("Disease = ");
            puts(x[g].disease);
            printf("Cabin no = %d\nPhone number =
0%d\nAge = %d",x[g].cabin,x[g].phone,x[g].age);
            printf("\n\n");
            f=0;
         }
      }
      if(f==1)
         printf("\nNot Found\n");
```

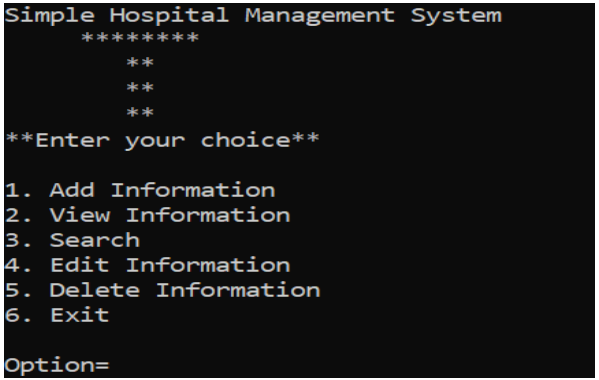
```
    else if(h==3)
    {
        int f=1;
        fflush(stdin);
        printf("Enter Disease = ");
        gets(u);
        fflush(stdin);
        for(g=0; g<num; g++)
        {
            if(strcmp(u,x[g].disease)==0)
            {
                printf("\n");
                printf("Serial Number=%d\n",g);
                printf("Name = ");
                puts(x[g].name);
                printf("Disease = ");
                puts(x[g].disease);
                printf("Cabin no = %d\nPhone number = 0%d\nAge =
%d",x[g].cabin,x[g].phone,x[g].age);
                printf("\n\n");
                f=0;
            }
        }
        if(f==1)
            printf("\nNot Found\n");
    }
    else if(h==4)
    {
        int f=1;
        printf("Enter Cabin number = ");
        scanf("%d",&f);
        for(g=0; g<num; g++)
        {
            if(f==x[g].cabin)
            {
                printf("\n");
                printf("Serial Number=%d\n",g);
                printf("Name = ");
                puts(x[g].name);
                printf("Disease = ");
                puts(x[g].disease);
                printf("Cabin no = %d\nPhone number =
0%d\nAge = %d",x[g].cabin,x[g].phone,x[g].age);
                printf("\n\n");
                f=0;
            }

        }
        if(f==1)
            printf("Not Found\n\n");
```

```
}
   else if(h==5)
   {
      int f=1;
      printf("Enter Phone number = ");
      scanf("%d",&f);
      for(g=0; g<num; g++)
      {
         if(f==x[g].phone)
         {
            printf("\n");
            printf("Serial Number=%d\n",g);
            printf("Name = ");
            puts(x[g].name);
            printf("Disease = ");
            puts(x[g].disease);
            printf("Cabin no = %d\nPhone number
= 0%d\nAge =
%d",x[g].cabin,x[g].phone,x[g].age);
            printf("\n\n");
            f=0;
         }
}
      if(f==1)
         printf("Not Found");
   }
   else if(h==6)
   {
      int f=1;
      printf("Enter Age = ");
      scanf("%d",&f);
      for(g=0; g<num; g++)
      {
         if(f==x[g].age)
         {
            printf("\n");
            printf("Serial Number=%d\n",g);
            printf("Name = ");
            puts(x[g].name);
            printf("Disease = ");
            puts(x[g].disease);
            printf("Cabin no = %d\nPhone number =
0%d\nAge = %d",x[g].cabin,x[g].phone,x[g].age);
            printf("\n\n");
            f=0;
         }
```

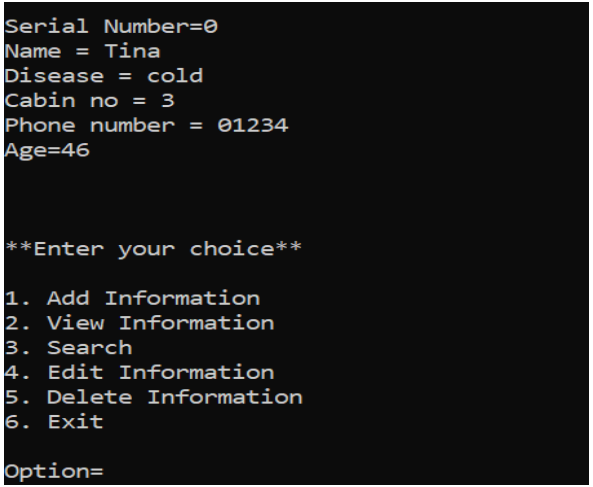
```
}
        if(f==1)
            printf("Not Found\n\n");

    }
    else
        printf("\n\nInvalid input\n\n");
}
void del()
{
    int f,h;
    printf("Enter the serial number of the patient that you want to delete=");
    scanf("%d",&f);
    if(f<num)
    {
        printf("What do you want ?\n");
        printf("1.Remove the whole record\n2.Remove Name\n3.Remove
Disease\n4.Remove age\n5.Remove Cabin\n6.Remove phone number\nOption
= ");
        scanf("%d",&h);
        if(h==1)
        {
            while(f<num)
            {
                strcpy(x[f].name,x[f+1].name);
                strcpy(x[f].disease,x[f+1].disease);
```

```
x[f].age=x[f+1].age;
                x[f].cabin=x[f+1].cabin;
                x[f].phone=x[f+1].phone;
                f++;
            }
            num--;
        }
else if(h==2)
        {
            strcpy(x[f].name,"Cleared");
        }
        else if(h==3)
        {
            strcpy(x[f].disease,"Cleared");
        }
        else if(h==4)
        {
            x[f].age=0;
        }
        else if(h==5)
        {
            x[f].cabin=0;
        }
        else if(h==6)
        {
            x[f].phone=0;
}}
  else
      printf("\n\nInvalid Serial number\n");
```

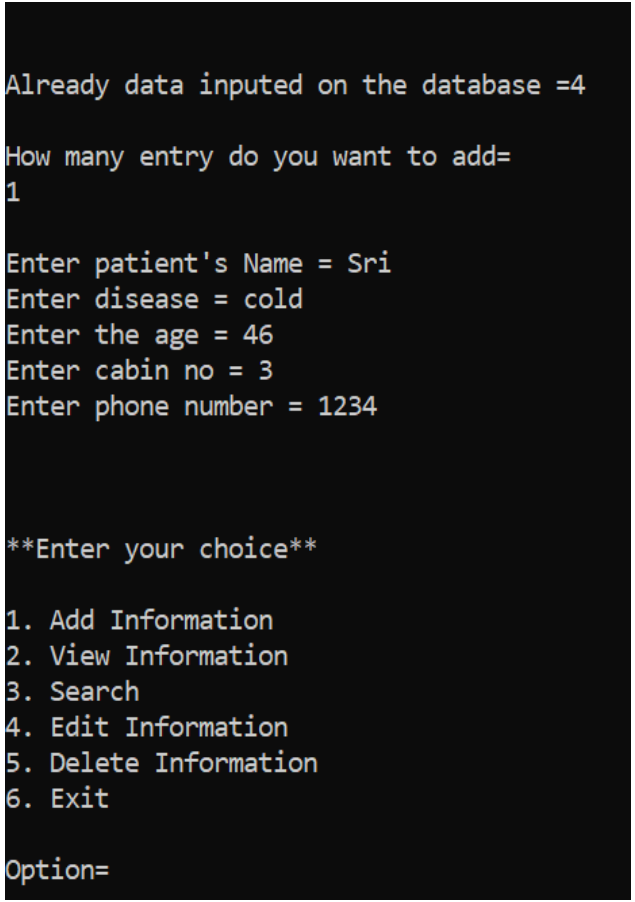
OUTPUT RESULTS OBATINED AFTER PROGRAM EXECUTION



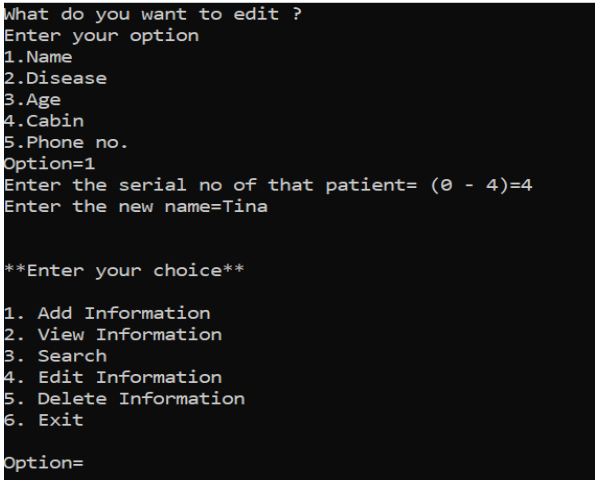
Fig(1) : Output Screen



Fig(4) : Record Entry Updated



Fig(2) : Adding patient's information



Fig(3) : Editing patient's information (name)

RESULT AND CONCLUSION

- Using this program patient’s information can be added, viewed, edited or deleted by selecting required option.
- This is a feasible program to perform any kind of user actions that are useful mainly in Hospital Management.
- It gives the user easy access to patient’s database to retrieve, fetch or change the information.

Thank you