

U19CS076 DBMS ASSIGNMENT-1

CODE:

```
#include <stdio.h>

#include <stdlib.h>

#include <string.h>

struct date{

    int day;

    int month;

    int year;

};

struct patient{

    int adm_no;

    char fname[15];

    char lname[15];

    char gender;

    int age;

    char area[15];

    struct date adm_date;

    struct date dis_date;

};

int t;//total records

int main(){

    FILE *fp;

    int ch;
```

```
char c;

while(1){

    printf("\n ENTER FROM FOLLOWING CHOICES \n");

    printf("1> ADD RECORD\n");

    printf("2> DELETE RECORD\n");

    printf("3> MODIFY RECORD\n");

    printf("4> COUNT OF RECORD\n");

    printf("5> ASCENDING SORT\n");

    printf("6> DESCENDING SORT\n");

    printf("7> SPECIAL REPORTS\n");

    printf("8> GENDER SAPERATED REPORTS\n");

    printf("9> DISPLAY ALL RECORDS IN FILE\n");

    printf("0> EXIT\n");

    printf("Enter your choice : ");

    scanf("%d",&ch);

    struct patient p;int k;

    switch(ch){

        case 1 :insertdata();

            break;

        case 2:deletedata();break;

        case 3:modify();break;

        case 4:count_data();break;

        case 5:sort_asc();break;

        case 6:sort_desc();break;

        case 7:spl_rep();break;

        case 8:gender_sep();break;
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        case 9:display();break;

        case 0:exit(0);

        default:printf("\n\nInvalid Input!");

    }

}

}

void insertdata()

{   FILE *fp;

    struct patient p;int k;

    do{

        fp = fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","a+");

        if(fp==NULL)

        {

            printf("Failed to load! ");

            return;

        }

        printf("\nEnter Admission number: ");

        scanf("%d", &p.adm_no);

        printf("\nEnter first name: ");

        fflush(stdin);

        scanf("%s", &p.fname);

        printf("\nEnter last name : ");

        fflush(stdin);

        scanf("%s", &p.lname);

        printf("\n Enter gender (M/F): ");

        fflush(stdin);

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scanf("%c", &p.gender);

printf("\n Enter age :");

fflush(stdin);

scanf("%d", &p.age);

printf("\n Enter area of residency :");

fflush(stdin);

scanf("%s", &p.area);

printf("\n Enter the date of Admission dd mm yyyy : ");

fflush(stdin);

scanf("%d %d %d", &p.adm_date.day, &p.adm_date.month, &p.adm_date.year);

printf("\n Enter the date of Discharge dd mm yyyy : ");

fflush(stdin);

scanf("%d %d %d", &p.dis_date.day, &p.dis_date.month, &p.dis_date.year);

fwrite(&p,sizeof(struct patient),1,fp);

// fprintf(fp,"\n%d %s %s %s %s %d/%d/%d %d/%d/%d
\n",p.adm_no,p.fname,p.lname,p.gender,p.area,p.adm_date.day,p.adm_date.month,p.adm_date.ye
ar,p.dis_date.day,p.dis_date.month,p.dis_date.year);

printf("\nSUCCESSFULLY PRINTED DATA IN FILE patientdata.txt\n");

fclose(fp);

printf("\nPress any key to continue and 0 to exit : ");

scanf("%d", &k);

}while(k);
}

void deletedata()
{
    struct patient p;

    FILE *fp;

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FILE *fp1;

fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

fp1=fopen("C:/Users/Bala/Desktop/u19cs076dbms/copydata.txt","a+");

if(fp==NULL)
{
    printf("Failed to load/Empty records!");
    return;
}

else
{
    int n,f=0;

    printf("\nEnter the Patient Admission Number to be deleted : ");

    scanf("%d",&n);

    while(fread(&p,sizeof(struct patient),1,fp))
    {
        if(p.adm_no!=n)
        {
            fwrite(&p,sizeof(struct patient),1,fp1);
        }
        else
        {
            f=1;
        }
    }

    if(f==1)

    printf("Successfully Deleted record with adm_no %d",n);

    else

```

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    printf("NO patient data exists with adm_num %d",n);

    fclose(fp);

    fclose(fp1);

    remove("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

rename("C:/Users/Bala/Desktop/u19cs076dbms/copydata.txt","C:/Users/Bala/Desktop/u19cs076db
ms/patientdata.txt");

    }

}

void modify()
{
    struct patient oldp,newp;

    FILE *fp;

    FILE *fp1;

    fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");
    fp1=fopen("C:/Users/Bala/Desktop/u19cs076dbms/copydata.txt","a+");

    int f=0;

    if(fp==NULL)
    {
        printf("Failed to modify! records empty");

        return;

    }

    else

    {

        int n;

        printf("\nEnter the Patient Admission No to modify : ");

        scanf("%d",&n);

        newp.adm_no=n;

```

```
printf("Enter First Name of patient : ");

fflush(stdin);

gets(newp.fname);

printf("Enter Last Name of patient : ");

fflush(stdin);

gets(newp.lname);

printf("Enter gender of patient (M/F) : ");

fflush(stdin);

scanf("%c",&newp.gender);

printf("Enter age of patient : ");

scanf("%d",&newp.age);

printf("Enter Area of the patient : ");

fflush(stdin);

gets(newp.area);

printf("Enter Admission date in format : dd mm yyyy : ");

scanf("%d %d %d",&newp.adm_date.day,&newp.adm_date.month,&newp.adm_date.year);

printf("Enter Discharge date in format : dd mm yyyy : ");

scanf("%d %d %d",&newp.dis_date.day,&newp.dis_date.month,&newp.dis_date.year);

while(fread(&oldp,sizeof(struct patient),1,fp))

{

if(oldp.adm_no!=n)

{

fwrite(&oldp,sizeof(struct patient),1,fp1);

}

else

{

fwrite(&newp,sizeof(struct patient),1,fp1);
```

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f=1;

}

}

fclose(fp);

fclose(fp1);

remove("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

rename("C:/Users/Bala/Desktop/u19cs076dbms/copydata.txt","C:/Users/Bala/Desktop/u19cs076db
ms/patientdata.txt");

if(f==1)
{
printf("\nData of adm_no %d is modified",n);
}
else
{
printf("\nThere is no data with adm_no %d",n);
}
}

}

void count_data()
{ struct patient p;

FILE *fp;

if(fp==NULL)
{
printf("Failed to load file/ Records Empty ");

return;

```



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}

printf("a> Count number of total patients \n");

printf("b> Count number of patients based on gender\n");

printf("c> Count number of patients based on age\n");

printf("d> Count number of patients based on area\n");

printf("Enter the menu sub choice:");

char c; fflush(stdin);

t=0;

int male=0, female=0;

scanf("%c",&c);

switch(c)
{
    case 'a':

        fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

        while(fread(&p,sizeof(struct patient),1,fp))

        {

            t++;

        }

        fclose(fp);

        printf("\nTotal number of records are %d\n",t);break;

    case 'b':

        fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

        while(fread(&p,sizeof(struct patient),1,fp))

        {

            if(p.gender=='M' || p.gender=='m')

                male++;

            else if(p.gender=='F' || p.gender=='f')

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        female++;
    }fclose(fp);

    printf("\nTotal number of male records are %d",male);

    printf("\nTotal number of female records are %d",female);

    int other=0;

    if(t-male-female>0)

        other=t-male-female;

    printf("\nTotal number of other gender records are %d\n",other);

    break;
case 'c':

    {

        int age[100]={0};

        fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

        while(fread(&p,sizeof(struct patient),1,fp))

        {

            age[p.age]++;

        }

        int i=1;

        for(i;i<=100;i++)

        {

            if(age[i]!=0)

                printf("\nNumber of people of age %d : %d",i,age[i]);

        }fclose(fp);

        }break;
case 'd':

    {

```

```

struct patient newp; int c,f=0,v=0;

fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

char word[15],visited[t][15];    //finding all unique areas

while(fread(&p,sizeof(struct patient),1,fp))
{
    c=0;

    f=0;//flag

    strcpy(word,p.area);int i;

    for(i=0;i<v;i++)
    {
        if(strcmp(word,visited[i])==0)

        {
            f=1;

        }
    }

    if(f==1)    //word already exists in visited array
    {
        continue;
    }

    else

    {
        strcpy(visited[v],word);//add word is visited array

        v++;
    }

    FILE *fp1;

    fp1=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

    while(fread(&newp,sizeof(struct patient),1,fp1))

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        {
            if(strcmp(word,newp.area)==0)
                c++;
        }

        printf("\nNumber of people in area %s : %d",word,c);

        fclose(fp1);
    }

    fclose(fp);
} break;

}

}

void sort_asc()
{
    printf("\na> List records in order of Patient first name ");
    printf("\nb> List records in order of Patient last name ");
    printf("\nc> List records in order of Patient age ");
    printf("\nd> List records in order of Patient admission date ");
    printf("\nEnter your choice :");

    char c;

    fflush(stdin);scanf("%c",&c);

    t=0;struct patient n; FILE *fp;

    fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

    while(fread(&n,sizeof(struct patient),1,fp))
    {
        t++;
    }
}

```

```

    }

fclose(fp);

switch(c)
{

    case 'a':
{
    struct patient p[t],p1,temp;

    int i=0,j;

    fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

    while(fread(&p1,sizeof(struct patient),1,fp))
    {
        p[i]=p1;

        i++;
    }

    for(i=1;i<t;i++)
    for(j=0;j<t-i;j++)
    {
        if(strcmp(p[j+1].fname,p[j].fname)<0)
        {
            temp=p[j];
            p[j]=p[j+1];
            p[j+1]=temp;
        }
    }

    FILE *fp1;

    fp1=fopen("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","a+");

```

```

        for(i=0;i<t;i++)
        {
            fwrite(&p[i],sizeof(struct patient),1,fp1);
        }

        fclose(fp);

        fclose(fp1);

        remove("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

rename("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","C:/Users/Bala/Desktop/u19cs076d
bms/patientdata.txt");

    // printf("\n\nSorted Record is : \n");

    // display();

    }break;

    case 'b':
{

    struct patient p[t],p1,temp;

    int i=0,j;

    FILE *fp;

    fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

    while(fread(&p1,sizeof(struct patient),1,fp))

    {

        p[i]=p1;

        i++;

    }

    for(i=1;i<t;i++)

    for(j=0;j<t-i;j++)

```

```

    {
        if(strcmp(p[j+1].lname,p[j].lname)<0)
        {
            temp=p[j];
            p[j]=p[j+1];
            p[j+1]=temp;
        }
    }

    FILE *fp1;

    fp1=fopen("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","a+");

    for(i=0;i<t;i++)
    {
        fwrite(&p[i],sizeof(struct patient),1,fp1);
    }

    fclose(fp);

    fclose(fp1);

    remove("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

    rename("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","C:/Users/Bala/Desktop/u19cs076d
bms/patientdata.txt");

}    break;

case 'c':

{

    struct patient p[t],p1,temp;

    int i=0,j;

```

```
FILE *fp;

fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

while(fread(&p1,sizeof(struct patient),1,fp))

{

p[i]=p1;

i++;

}


for(i=1;i<t;i++)

for(j=0;j<t-i;j++)

{

if(p[j+1].age<p[j].age)

{

temp=p[j];

p[j]=p[j+1];

p[j+1]=temp;

}

}


FILE *fp1;

fp1=fopen("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","a+");

for(i=0;i<t;i++)

{

fwrite(&p[i],sizeof(struct patient),1,fp1);

}

fclose(fp);

fclose(fp1);
```



```

remove("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

rename("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","C:/Users/Bala/Desktop/u19cs076d
bms/patientdata.txt");

}break;

    case 'd':
{

    struct patient p[t],p1,temp;

    int i=0,j;

    FILE *fp;

    fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

    while(fread(&p1,sizeof(struct patient),1,fp))

    {

        p[i]=p1;

        i++;

    }

    for(i=1;i<t;i++)

    for(j=0;j<t-i;j++)

    {

        if(p[j+1].adm_date.year<p[j].adm_date.year || (p[j+1].adm_date.year==p[j].adm_date.year
        && p[j+1].adm_date.month<p[j].adm_date.month) || (p[j+1].adm_date.year==p[j].adm_date.year
        && p[j+1].adm_date.month ==p[j].adm_date.month && p[j+1].adm_date.day<p[j].adm_date.day) )

        {

            temp=p[j];

            p[j]=p[j+1];

            p[j+1]=temp;

        }
    }
}

```

```

    }

    FILE *fp1;

    fp1=fopen("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","a+");

    for(i=0;i<t;i++)

    {

        fwrite(&p[i],sizeof(struct patient),1,fp1);

    }

    fclose(fp);

    fclose(fp1);

    remove("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

    rename("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

    }

    break;

    }

}

void sort_desc()

{

    printf("\na> List records in order of Patient first name ");

    printf("\nb> List records in order of Patient last name ");

    printf("\nc> List records in order of Patient age ");

    printf("\nd> List records in order of Patient admission date ");

    printf("\nEnter your choice :");

    char c;

    fflush(stdin);scanf("%c",&c);

```

```

switch(c)
{

case 'a':

    {t=0;struct patient n; FILE *fp;

    fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

    while(fread(&n,sizeof(struct patient),1,fp))

    {

        t++;

    }

    fclose(fp);

    struct patient p[t],p1,temp;

    int i=0,j;

    fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

    while(fread(&p1,sizeof(struct patient),1,fp))

    {

        p[i]=p1;

        i++;

    }

    for(i=1;i<t;i++)

    for(j=0;j<t-i;j++)

    {

        if(strcmp(p[j+1].fname,p[j].fname)>0)

        {

            temp=p[j];

            p[j]=p[j+1];

            p[j+1]=temp;

```

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    }

    }

    FILE *fp1;

    fp1=fopen("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","a+");

    for(i=0;i<t;i++)

    {

        fwrite(&p[i],sizeof(struct patient),1,fp1);

    }

    fclose(fp);

    fclose(fp1);

    remove("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

    rename("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

    }break;

    case 'b':

        {struct patient p[t],p1,temp;

        int i=0,j;

        FILE *fp;

        fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

        while(fread(&p1,sizeof(struct patient),1,fp))

        {

            p[i]=p1;//placing it in array for bubble sort

            i++;

        }

        for(i=1;i<t;i++)

        for(j=0;j<t-i;j++)

```

```

{
if(strcmp(p[j+1].lname,p[j].lname)>0)//bubble sort
{
temp=p[j];
p[j]=p[j+1];
p[j+1]=temp;
}
}

FILE *fp1;

fp1=fopen("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","a+");

for(i=0;i<t;i++)
{
fwrite(&p[i],sizeof(struct patient),1,fp1);
}

fclose(fp);

fclose(fp1);

remove("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

rename("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","C:/Users/Bala/Desktop/u19cs076d
bms/patientdata.txt");

}break;

case 'c':

{struct patient p[t],p1,temp;

int i=0,j;

FILE *fp;

fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

while(fread(&p1,sizeof(struct patient),1,fp))

```

```

{
    p[i]=p1;
    i++;
}

for(i=1;i<t;i++)
for(j=0;j<t-i;j++)
{
    if(p[j+1].age>p[j].age)
    {
        temp=p[j];
        p[j]=p[j+1];
        p[j+1]=temp;
    }
}

FILE *fp1;

fp1=fopen("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","a+");

for(i=0;i<t;i++)
{
    fwrite(&p[i],sizeof(struct patient),1,fp1);
}

fclose(fp);

fclose(fp1);

remove("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

rename("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

}break;// display();

```

```

case 'd':
{

struct patient p[t],p1,temp;

int i=0,j;

FILE *fp;

fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

while(fread(&p1,sizeof(struct patient),1,fp))

{

p[i]=p1;

i++;

}

for(i=1;i<t;i++)

for(j=0;j<t-i;j++)

{

if(p[j+1].adm_date.year>p[j].adm_date.year || (p[j+1].adm_date.year==p[j].adm_date.year
&& p[j+1].adm_date.month>p[j].adm_date.month) || (p[j+1].adm_date.year==p[j].adm_date.year
&& p[j+1].adm_date.month ==p[j].adm_date.month && p[j+1].adm_date.day>p[j].adm_date.day) )

{

temp=p[j];

p[j]=p[j+1];

p[j+1]=temp;

}

}

FILE *fp1;

fp1=fopen("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","a+");

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```

        for(i=0;i<t;i++)
        {
            fwrite(&p[i],sizeof(struct patient),1,fp1);
        }

        fclose(fp);

        fclose(fp1);

        remove("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt");

rename("C:/Users/Bala/Desktop/u19cs076dbms/sorteddata.txt","C:/Users/Bala/Desktop/u19cs076d
bms/patientdata.txt");

    }

    break;

}

}

void spl_rep()
{
    printf("\na> List all patients with first name K-T ");

    printf("\nb> List all patients whose Admission Date between user given date till 10 days next ");

    printf("\nc> List all patients whose Admission month between user given month till 5 months
next");

    printf("\nEnter a suboption -");

    int c;fflush(stdin);

    scanf("%c",&c);

    struct patient p;

    struct date d[11];//array of dates for next 10 dates from user given date

    int mn,yr,f=0;//f is flag element

    FILE *fp;

    fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

```



```

if(fp==NULL)

{

printf("Failed to load file/ Records Empty ");

return;

}

switch(c)

{

case 'a':

{ printf("\nDisplaying all records with first name starting from k to j");

while(fread(&p,sizeof(struct patient),1,fp))

{

if((p.fname[0]>='K'&&p.fname[0]<='U') || (p.fname[0]>='k'&&p.fname[0]<='u'))

{

printf("\n=====\\n");

printf("\nPatient Number : %d",p.adm_no);

printf("\nFirst Name : %s",p.fname);

printf("\nLast Name : %s",p.lname);

printf("\nAge : %d",p.age);

printf("\nGender : %c",p.gender);

printf("\nArea : %s",p.area);

printf("\nAdmission Date : %d / %d /

%d",p.adm_date.day,p.adm_date.month,p.adm_date.year);

printf("\nDischarge Date : %d / %d /

%d",p.dis_date.day,p.dis_date.month,p.dis_date.year);

f=1;//found such element then flag turns 1

}

}

fclose(fp);

```

```

        if(f==0)
        {
            printf("\n\nNo desired record found!");
        }
    }break;
case 'b':
{
    printf("Enter a date in given format : dd mm yyyy : ");
    scanf("%d %d %d",&d[0].day,&d[0].month,&d[0].year);
    int i=1,m,f=0; //m IS MAXIMUM DAYS OF A SPECIFIC MONTH
    while(i!=11)
    {
        if(d[i-1].month==1 || d[i-1].month==3 || d[i-1].month==5 || d[i-1].month==7 || d[i-
1].month==8 || d[i-1].month==10 || d[i-1].month==12 ) //TO CALCULATE DAYS ON SPECIFIC MONTH
        {
            m=31;
        }
        else if(d[i-1].month==2)//leap year days in february
        {
            if(d[i-1].year%400==0 || d[i-1].year%4==0)
            m=29;
            else
            m=28;
        }
        else
        {
            m=30;
        }
    }
}

```

```

if(d[i-1].day==m)//if its last day f month
{
d[i].day=(d[i-1].day+1)%m;
if(d[i-1].month==12)//if its last month of year
{
d[i].month=1;
d[i].year=d[i-1].year+1;
}
else
{
d[i].month=d[i-1].month+1;
d[i].year=d[i-1].year;
}
}
else
{
d[i].day=(d[i-1].day+1);
d[i].month=d[i-1].month;
d[i].year=d[i-1].year;
}
i++;
}
}
//finding next 10 dates
while(fread(&p,sizeof(struct patient),1,fp))
{
i=0;
while(i<11)
{

```

```

        if(p.adm_date.year==d[i].year && p.adm_date.month==d[i].month &&
p.adm_date.day==d[i].day)

        {

            printf("\n=====\\n");

            printf("\nPatient Number : %d",p.adm_no);

            printf("\nFirst Name : %s",p.fname);

            printf("\nLast Name : %s",p.lname);

            printf("\nAge : %d",p.age);

            printf("\nGender : %c",p.gender);

            printf("\nArea : %s",p.area);

            printf("\nAdmission Date : %d / %d /
%d",p.adm_date.day,p.adm_date.month,p.adm_date.year);

            printf("\nDischarge Date : %d / %d /
%d",p.dis_date.day,p.dis_date.month,p.dis_date.year);

            f=1;

            break;

        }

        i++;

    }

}

fclose(fp);

if(f==0)

{

    printf("\n\\nNo desired record found!");

}

break;

}

case 'c':

{

```

```

printf("\nEnter Admission month & year in format mm yyyy: ");

scanf("%d %d",&mn,&yr);

while(fread(&p,sizeof(struct patient),1,fp))

{

if(p.adm_date.year==yr)//in same year

{

if(mn<=7)//next 5 months in same year

{

if(p.adm_date.month>=mn&&p.adm_date.month<=mn+5)

{

printf("\n=====\\n");

printf("\nPatient Number : %d",p.adm_no);

printf("\nFirst Name : %s",p.fname);

printf("\nLast Name : %s",p.lname);

printf("\nAge : %d",p.age);

printf("\nGender : %c",p.gender);

printf("\nArea : %s",p.area);

printf("\nAdmission Date : %d / %d /
%d",p.adm_date.day,p.adm_date.month,p.adm_date.year);

printf("\nDischarge Date : %d / %d /
%d",p.dis_date.day,p.dis_date.month,p.dis_date.year);

f=1;

}

}

else

{

if(p.adm_date.month>=mn&&p.adm_date.month<=12)//print the months in same
year which are in next 5 month period

{

```

```

        printf("\n=====\\n");

        printf("\nPatient Number : %d",p.adm_no);

        printf("\nFirst Name : %s",p.fname);

        printf("\nLast Name : %s",p.lname);

        printf("\nAge : %d",p.age);

        printf("\nGender : %c",p.gender);

        printf("\nArea : %s",p.area);

        printf("\nAdmission Date : %d / %d /
%d",p.adm_date.day,p.adm_date.month,p.adm_date.year);

        printf("\nDischarge Date : %d / %d /
%d",p.dis_date.day,p.dis_date.month,p.dis_date.year);

        f=1;

    }

}

}

else if(p.adm_date.year==yr+1)

{

    if(p.adm_date.month<=mn-7)//remaining n=months in the next year

    {

        printf("\n=====\\n");

        printf("\nPatient Number : %d",p.adm_no);

        printf("\nFirst Name : %s",p.fname);

        printf("\nLast Name : %s",p.lname);

        printf("\nAge : %d",p.age);

        printf("\nGender : %c",p.gender);

        printf("\nArea : %s",p.area);

        printf("\nAdmission Date : %d / %d /
%d",p.adm_date.day,p.adm_date.month,p.adm_date.year);

```

```
        printf("\nDischarge Date : %d / %d /  
%d",p.dis_date.day,p.dis_date.month,p.dis_date.year);
```

```
        f=1;
```

```
    }
```

```
    }
```

```
    }
```

```
fclose(fp);
```

```
if(f==0)
```

```
{
```

```
    printf("\n\nNo desired record found!");
```

```
}
```

```
break;
```

```
default:
```

```
    printf("\n\nInvalid Input!");
```

```
fclose(fp);
```

```
break;
```

```
}
```

```
}
```

```
}
```

```
void gender_sep()
```

```
{
```

```
    struct patient p;
```

```
    FILE *fp;
```

```
    FILE *fpmale;
```

```
    FILE *fpfemale;
```

```
    fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");
```

```
    if(fp==NULL)
```

```
{
```

```
printf("Failed to load/ Records Empty ");
return;
}

fpmale=fopen("C:/Users/Bala/Desktop/u19cs076dbms/maledata.txt","a+");
fpfemale=fopen("C:/Users/Bala/Desktop/u19cs076dbms/femaledata.txt","a+");
if(fpmale!=NULL) //TO MAKE A FRESH TEXT FILE so that if other file exists it doesnt clash
{
fclose(fpmale);
remove("C:/Users/Bala/Desktop/u19cs076dbms/maledata.txt");
fpmale=fopen("C:/Users/Bala/Desktop/u19cs076dbms/maledata.txt","a+");
}
if(fpfemale!=NULL) //TO MAKE A FRESH TEXT FILE
{
fclose(fpfemale);
remove("C:/Users/Bala/Desktop/u19cs076dbms/femaledata.txt");
fpfemale=fopen("C:/Users/Bala/Desktop/u19cs076dbms/femaledata.txt","a+");
}
while(fread(&p,sizeof(struct patient),1,fp))
{
if(p.gender=='M') //WRITING RECORDS
{
fwrite(&p,sizeof(struct patient),1,fpmale);
}
else if(p.gender=='F') //WRITING RECORDS
{
fwrite(&p,sizeof(struct patient),1,fpfemale);
}
}
```



```

}

fclose(fp);

fclose(fpmale);

fclose(fpfemale);

fpmale=fopen("C:/Users/Bala/Desktop/u19cs076dbms/maledata.txt","r+");

fpfemale=fopen("C:/Users/Bala/Desktop/u19cs076dbms/femaledata.txt","r+");

int f=0;

printf("\n\t=====Only males records are=====\\n ");

while(fread(&p,sizeof(struct patient),1,fpmale)) //DISPLAYING RECORDS
{

    printf("\\n=====\\n");

    printf("\\nPatient Number : %d",p.adm_no);

    printf("\\nFirst Name : %s",p.fname);

    printf("\\nLast Name : %s",p.lname);

    printf("\\nAge : %d",p.age);

    printf("\\nGender : %c",p.gender);

    printf("\\nArea : %s",p.area);

    printf("\\nAdmission Date : %d / %d /
%d",p.adm_date.day,p.adm_date.month,p.adm_date.year);

    printf("\\nDischarge Date : %d / %d /
%d",p.dis_date.day,p.dis_date.month,p.dis_date.year);

    f=1;

}

if(f==0)

{

    printf("\\n\\nNo male records found!");

}

f=0;

```

```

fclose(fpmale);

printf("\n\n\t=====Only females records are=====\\n ");

while(fread(&p,sizeof(struct patient),1,fpfemale)) //DISPLAYING RECORDS
{
    printf("\\n=====\\n");

    printf("\\nPatient Number : %d",p.adm_no);

    printf("\\nFirst Name : %s",p.fname);

    printf("\\nLast Name : %s",p.lname);

    printf("\\nAge : %d",p.age);

    printf("\\nGender : %c",p.gender);

    printf("\\nArea : %s",p.area);

    printf("\\nAdmission Date : %d / %d / %d" , p.adm_date.day
,p.adm_date.month,p.adm_date.year);

    printf("\\nDischarge Date : %d / %d / %d",p.dis_date.day,
p.dis_date.month,p.dis_date.year);

    f=1;
}

if(f==0)
{
    printf("\\n\\nNo female records found!");
}

fclose(fpfemale);
}

void display()
{
    struct patient p;

    FILE *fp;

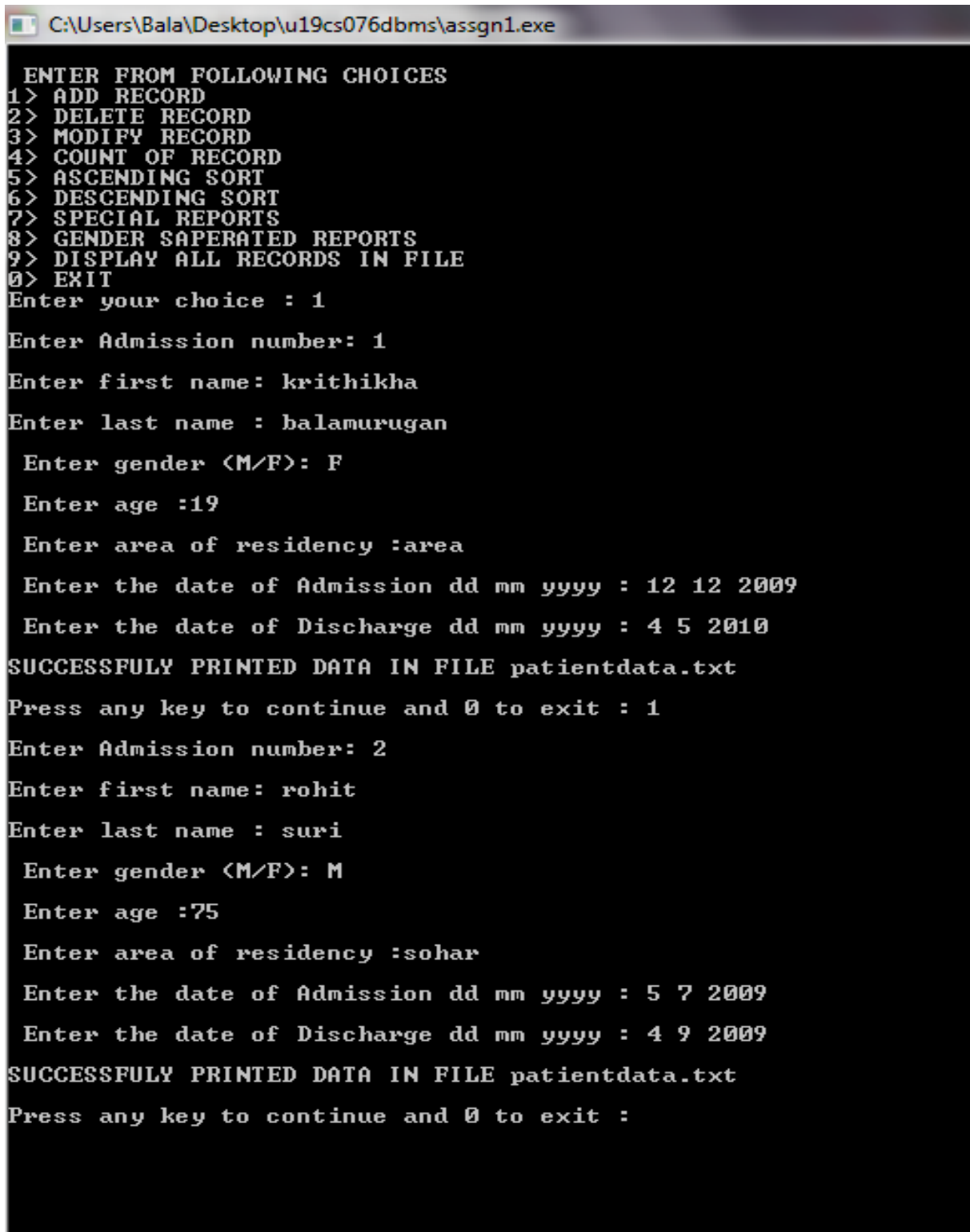
    fp=fopen("C:/Users/Bala/Desktop/u19cs076dbms/patientdata.txt","r+");

```

```
if(fp==NULL)
{
    printf("Failed to load file / file is empty!!!");
}
else
{
    printf("Printing all records");
    while(fread(&p,sizeof(struct patient),1,fp))
    {
        printf("\nPatient Admission Number : %d",p.adm_no);
        printf("\nFirst Name : %s",p.fname);
        printf("\nLast Name : %s",p.lname);
        printf("\nGender : %c",p.gender);
        printf("\nAge : %d",p.age);
        printf("\nArea : %s",p.area);
        printf("\nAdmission Date : %d / %d / %d",p.adm_date.day,p.adm_date.month,p.adm_date.year);
        printf("\nDischarge Date : %d / %d / %d",p.dis_date.day,p.dis_date.month,p.dis_date.year);
        printf("\n=====\\n");
    }
}
fclose(fp);
}
```

SCREENSHOTS :

1. ADDING RECORDS



```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 1

Enter Admission number: 1
Enter first name: krithikha
Enter last name : balamurugan
Enter gender <M/F>: F
Enter age :19
Enter area of residency :area
Enter the date of Admission dd mm yyyy : 12 12 2009
Enter the date of Discharge dd mm yyyy : 4 5 2010
SUCCESSFULLY PRINTED DATA IN FILE patientdata.txt
Press any key to continue and 0 to exit : 1

Enter Admission number: 2
Enter first name: rohit
Enter last name : suri
Enter gender <M/F>: M
Enter age :75
Enter area of residency :sohar
Enter the date of Admission dd mm yyyy : 5 7 2009
Enter the date of Discharge dd mm yyyy : 4 9 2009
SUCCESSFULLY PRINTED DATA IN FILE patientdata.txt
Press any key to continue and 0 to exit :
```

C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe

ENTER FROM FOLLOWING CHOICES

- 1> ADD RECORD
- 2> DELETE RECORD
- 3> MODIFY RECORD
- 4> COUNT OF RECORD
- 5> ASCENDING SORT
- 6> DESCENDING SORT
- 7> SPECIAL REPORTS
- 8> GENDER SAPERATED REPORTS
- 9> DISPLAY ALL RECORDS IN FILE
- 0> EXIT

Enter your choice : 9

Printing all records

Patient Admission Number : 1

First Name : krithikha

Last Name : balamurugan

Gender : F

Age : 19

Area : area

Admission Date : 12 / 12 / 2009

Discharge Date : 4 / 5 / 2010

=====

Patient Admission Number : 2

First Name : rohit

Last Name : suri

Gender : M

Age : 75

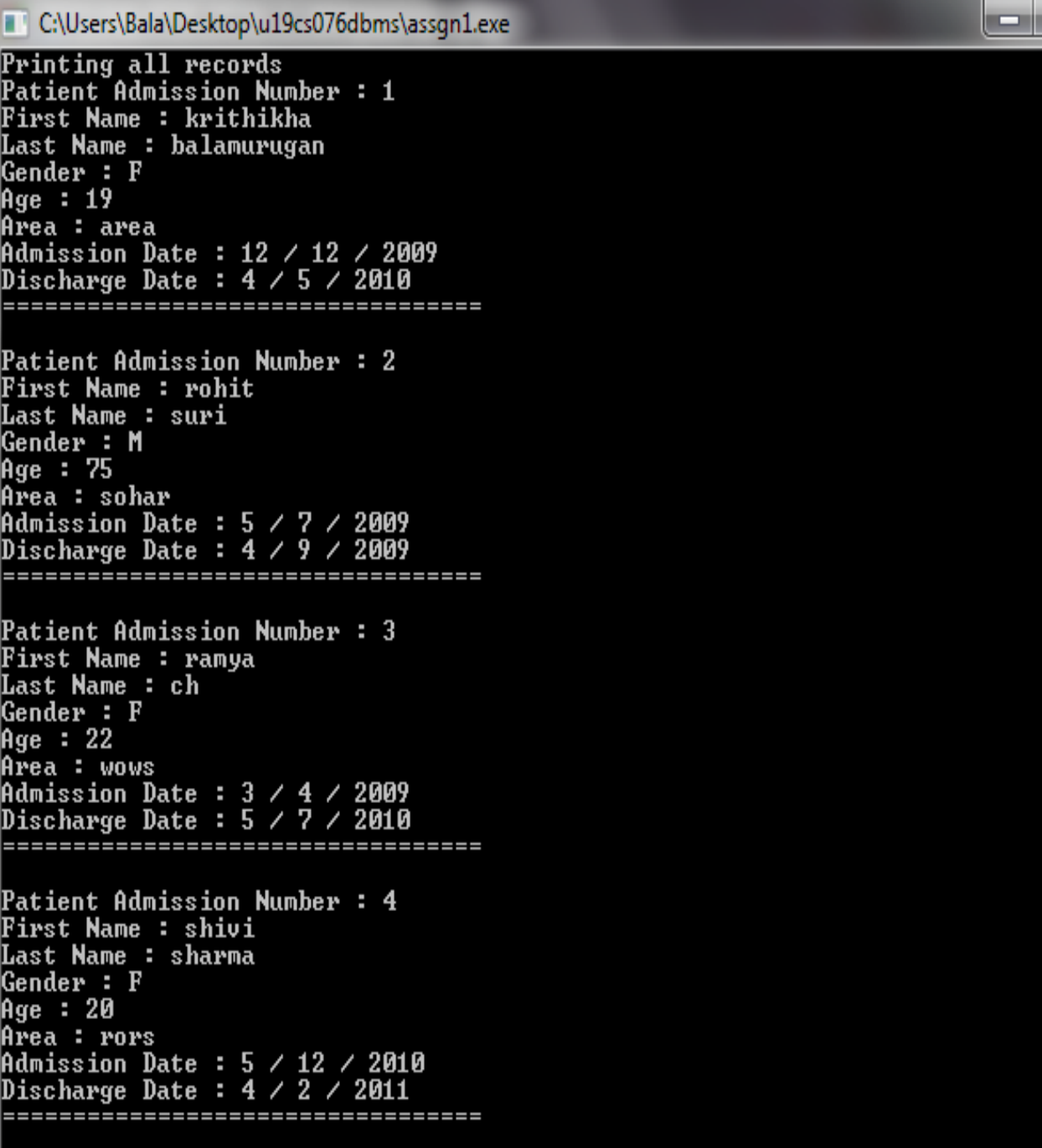
Area : sohar

Admission Date : 5 / 7 / 2009

Discharge Date : 4 / 9 / 2009

=====

2.DELETING RECORDS



```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
Printing all records
Patient Admission Number : 1
First Name : krithikha
Last Name : balamurugan
Gender : F
Age : 19
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
=====

Patient Admission Number : 2
First Name : rohit
Last Name : suri
Gender : M
Age : 75
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
=====

Patient Admission Number : 3
First Name : ranya
Last Name : ch
Gender : F
Age : 22
Area : wows
Admission Date : 3 / 4 / 2009
Discharge Date : 5 / 7 / 2010
=====

Patient Admission Number : 4
First Name : shivi
Last Name : sharma
Gender : F
Age : 20
Area : rors
Admission Date : 5 / 12 / 2010
Discharge Date : 4 / 2 / 2011
=====
```

C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe

ENTER FROM FOLLOWING CHOICES

- 1> ADD RECORD
- 2> DELETE RECORD
- 3> MODIFY RECORD
- 4> COUNT OF RECORD
- 5> ASCENDING SORT
- 6> DESCENDING SORT
- 7> SPECIAL REPORTS
- 8> GENDER SAPERATED REPORTS
- 9> DISPLAY ALL RECORDS IN FILE
- 0> EXIT

Enter your choice : 2

Enter the Patient Admission Number to be deleted : 3

Successfully Deleted record with adm_no 3

ENTER FROM FOLLOWING CHOICES

- 1> ADD RECORD
- 2> DELETE RECORD
- 3> MODIFY RECORD
- 4> COUNT OF RECORD
- 5> ASCENDING SORT
- 6> DESCENDING SORT
- 7> SPECIAL REPORTS
- 8> GENDER SAPERATED REPORTS
- 9> DISPLAY ALL RECORDS IN FILE
- 0> EXIT

Enter your choice : 9

Printing all records

Patient Admission Number : 1

First Name : krithikha

Last Name : balamurugan

Gender : F

Age : 19

Area : area

Admission Date : 12 / 12 / 2009

Discharge Date : 4 / 5 / 2010

=====

Patient Admission Number : 2

First Name : rohit

Last Name : suri

Gender : M

Age : 75

Area : sohar

Admission Date : 5 / 7 / 2009

Discharge Date : 4 / 9 / 2009

=====

Patient Admission Number : 4

First Name : shivi

Last Name : sharma

Gender : F

Age : 20

Area : rors

Admission Date : 5 / 12 / 2010

Discharge Date : 4 / 2 / 2011

=====

ENTER FROM FOLLOWING CHOICES

3.MODIFY RECORDS

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 3

Enter the Patient Admission No to modify : 4
Enter First Name of patient : sorab
Enter Last Name of patient : mishra
Enter gender of patient (M/F) : M
Enter age of patient : 19
Enter Area of the patient : area
Enter Admission date in format : dd mm yyyy : 2 4 2020
Enter Discharge date in format : dd mm yyyy : 2 8 2020

Data of adm_no 4 is modified
ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 9
Printing all records
Patient Admission Number : 1
First Name : krithikha
Last Name : balamurugan
Gender : F
Age : 19
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
=====

Patient Admission Number : 2
First Name : rohit
Last Name : suri
Gender : M
Age : 75
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
=====

Patient Admission Number : 4
First Name : sorab
Last Name : mishra
Gender : M
Age : 19
Area : area
Admission Date : 2 / 4 / 2020
```

4. Generate various summary reports on the field given by the user

- a. Display count of patient
- b. Display the count of patient based on the gender
- c. Display the age wise count of patient
- d. Display the count of patient areawise


```

C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 4
a> Count number of total patients
b> Count number of patients based on gender
c> Count number of patients based on age
d> Count number of patients based on area
Enter the menu sub choice:a

Total number of records are 3

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 4
a> Count number of total patients
b> Count number of patients based on gender
c> Count number of patients based on age
d> Count number of patients based on area
Enter the menu sub choice:b

Total number of male records are 2
Total number of female records are 1
Total number of other gender records are 0

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 4
a> Count number of total patients
b> Count number of patients based on gender
c> Count number of patients based on age
d> Count number of patients based on area
Enter the menu sub choice:c

Number of people of age 19 : 2
Number of people of age 75 : 1

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 4
a> Count number of total patients
b> Count number of patients based on gender
c> Count number of patients based on age
d> Count number of patients based on area
Enter the menu sub choice:d

Number of people in area area : 2
Number of people in area sohar : 1

```

5. List all the records of the file in ascending order

a. Patient first name

b. Patient last name

c. Patient age

d. Admission date

a)

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 5

a> List records in order of Patient first name
b> List records in order of Patient last name
c> List records in order of Patient age
d> List records in order of Patient admission date
Enter your choice :a

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 9
Printing all records
Patient Admission Number : 1
First Name : krithikha
Last Name : balamurugan
Gender : F
Age : 19
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
=====

Patient Admission Number : 2
First Name : rohit
Last Name : suri
Gender : M
Age : 75
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
=====

Patient Admission Number : 4
First Name : sorab
Last Name : mishra
Gender : M
Age : 19
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
=====
```

b)

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 5

a> List records in order of Patient first name
b> List records in order of Patient last name
c> List records in order of Patient age
d> List records in order of Patient admission date
Enter your choice : b

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 9
Printing all records
Patient Admission Number : 1
First Name : krithikha
Last Name : balamurugan
Gender : F
Age : 19
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
=====

Patient Admission Number : 4
First Name : sorab
Last Name : mishra
Gender : M
Age : 19
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
=====

Patient Admission Number : 2
First Name : rohit
Last Name : suri
Gender : M
Age : 75
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
=====
```

c)

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 5

a> List records in order of Patient first name
b> List records in order of Patient last name
c> List records in order of Patient age
d> List records in order of Patient admission date
Enter your choice :c

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 9
Printing all records
Patient Admission Number : 1
First Name : krithikha
Last Name : balamurugan
Gender : F
Age : 19
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
=====

Patient Admission Number : 4
First Name : sorab
Last Name : mishra
Gender : M
Age : 19
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
=====

Patient Admission Number : 2
First Name : rohit
Last Name : suri
Gender : M
Age : 75
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
=====
```

d)

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 5

a> List records in order of Patient first name
b> List records in order of Patient last name
c> List records in order of Patient age
d> List records in order of Patient admission date
Enter your choice :d

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 9
Printing all records
Patient Admission Number : 2
First Name : rohit
Last Name : suri
Gender : M
Age : 75
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
=====

Patient Admission Number : 1
First Name : krithikha
Last Name : balamurugan
Gender : F
Age : 19
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
=====

Patient Admission Number : 4
First Name : sorab
Last Name : mishra
Gender : M
Age : 19
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
```

6. List all the records of the file in descending order

- a. Patient first name
- b. Patient last name
- c. Patient age
- d. Discharge date

a)

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 6

a> List records in order of Patient first name
b> List records in order of Patient last name
c> List records in order of Patient age
d> List records in order of Patient admission date
Enter your choice : a

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 9
Printing all records
Patient Admission Number : 4
First Name : sorab
Last Name : mishra
Gender : M
Age : 19
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
=====

Patient Admission Number : 2
First Name : rohit
Last Name : suri
Gender : M
Age : 75
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
=====

Patient Admission Number : 1
First Name : krithikha
Last Name : balamurugan
Gender : F
Age : 19
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
```

b)

```
CA\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 6

a> List records in order of Patient first name
b> List records in order of Patient last name
c> List records in order of Patient age
d> List records in order of Patient admission date
Enter your choice : b

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 9
Printing all records
Patient Admission Number : 2
First Name : rohit
Last Name : suri
Gender : M
Age : 75
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
=====

Patient Admission Number : 4
First Name : sorab
Last Name : mishra
Gender : M
Age : 19
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
=====

Patient Admission Number : 1
First Name : krithikha
Last Name : balamurugan
Gender : F
Age : 19
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
```

c)

```
CA\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 6

a> List records in order of Patient first name
b> List records in order of Patient last name
c> List records in order of Patient age
d> List records in order of Patient admission date
Enter your choice :c

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 9
Printing all records
Patient Admission Number : 2
First Name : rohit
Last Name : suri
Gender : M
Age : 75
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
=====

Patient Admission Number : 4
First Name : sorab
Last Name : mishra
Gender : M
Age : 19
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
=====

Patient Admission Number : 1
First Name : krithikha
Last Name : balamurugan
Gender : F
Age : 19
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
```


d)

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 6

a> List records in order of Patient first name
b> List records in order of Patient last name
c> List records in order of Patient age
d> List records in order of Patient admission date
Enter your choice :d

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 9
Printing all records
Patient Admission Number : 4
First Name : sorab
Last Name : mishra
Gender : M
Age : 19
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
=====

Patient Admission Number : 1
First Name : krithikha
Last Name : balamurugan
Gender : F
Age : 19
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
=====

Patient Admission Number : 2
First Name : rohit
Last Name : suri
Gender : M
Age : 75
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
```

7. List all the records of the file for specific range

- a. Patient first name starts from your first name letter to next 10 letters
- b. Admission date from user given date to next 10 dates
- c. Admission month from user given month to next 5 months

Initial records display

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
Printing all records
Patient Admission Number : 4
First Name : sorab
Last Name : mishra
Gender : M
Age : 19
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
=====

Patient Admission Number : 1
First Name : krithikha
Last Name : balamurugan
Gender : F
Age : 19
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
=====

Patient Admission Number : 2
First Name : rohit
Last Name : suri
Gender : M
Age : 75
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
=====

Patient Admission Number : 5
First Name : aadavan
Last Name : aal
Gender : M
Age : 10
Area : luckno
Admission Date : 1 / 1 / 2020
Discharge Date : 1 / 10 / 2020
=====

Patient Admission Number : 1
First Name : akarshee
Last Name : jain
Gender : F
Age : 18
Area : chennai
Admission Date : 7 / 4 / 2020
Discharge Date : 1 / 1 / 2021
=====

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
```

a)

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe

ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 7

a> List all patients with first name K-T
b> List all patients whose Admission Date between user given date till 10 days n
ext
c> List all patients whose Admission month between user given month till 5 month
s next
Enter a suboption -a

Displaying all records with first name starting from k to j
=====

Patient Number : 4
First Name : sorab
Last Name : mishra
Age : 19
Gender : M
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
=====

Patient Number : 1
First Name : krithikha
Last Name : balamurugan
Age : 19
Gender : F
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
=====

Patient Number : 2
First Name : rohit
Last Name : suri
Age : 75
Gender : M
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
```

B)

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 7

a> List all patients with first name K-T
b> List all patients whose Admission Date between user given date till 10 days n
ext
c> List all patients whose Admission month between user given month till 5 month
s next
Enter a suboption -b
Enter a date in given format : dd mm yyyy : 2 4 2020

=====

Patient Number : 4
First Name : sorab
Last Name : mishra
Age : 19
Gender : M
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
=====

Patient Number : 1
First Name : akarshee
Last Name : jain
Age : 18
Gender : F
Area : chennai
Admission Date : 7 / 4 / 2020
Discharge Date : 1 / 1 / 2021
ENTER FROM FOLLOWING CHOICES
```

c)

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 7
a> List all patients with first name K-T
b> List all patients whose Admission Date between user given date till 10 days n
ext
c> List all patients whose Admission month between user given month till 5 month
s next
Enter a suboption -c
Enter Admission month & year in format mm yyyy: 7 2009
=====
Patient Number : 1
First Name : krithikha
Last Name : balamurugan
Age : 19
Gender : F
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
=====
Patient Number : 2
First Name : rohit
Last Name : suri
Age : 75
Gender : M
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
ENTER FROM FOLLOWING CHOICES
1> ADD RECORD
2> DELETE RECORD
3> MODIFY RECORD
4> COUNT OF RECORD
5> ASCENDING SORT
6> DESCENDING SORT
7> SPECIAL REPORTS
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice :
```

8. Separate records of male and females in separate files

```
C:\Users\Bala\Desktop\u19cs076dbms\assgn1.exe
8> GENDER SAPERATED REPORTS
9> DISPLAY ALL RECORDS IN FILE
0> EXIT
Enter your choice : 8

=====Only males records are=====
=====
Patient Number : 4
First Name : sorab
Last Name : mishra
Age : 19
Gender : M
Area : area
Admission Date : 2 / 4 / 2020
Discharge Date : 2 / 8 / 2020
=====

Patient Number : 2
First Name : rohit
Last Name : suri
Age : 75
Gender : M
Area : sohar
Admission Date : 5 / 7 / 2009
Discharge Date : 4 / 9 / 2009
=====

Patient Number : 5
First Name : aadavan
Last Name : aal
Age : 10
Gender : M
Area : luckno
Admission Date : 1 / 1 / 2020
Discharge Date : 1 / 10 / 2020

=====Only females records are=====
=====
Patient Number : 1
First Name : krithikha
Last Name : balamurugan
Age : 19
Gender : F
Area : area
Admission Date : 12 / 12 / 2009
Discharge Date : 4 / 5 / 2010
=====

Patient Number : 1
First Name : akarshee
Last Name : jain
Age : 18
Gender : F
Area : chennai
Admission Date : 7 / 4 / 2020
Discharge Date : 1 / 1 / 2021
```

The file containing data is called patientdata.txt and each time some changes are made is here. The gender_sep function creates 2 files femaledata.txt and maledata.txt. and update/delete/sort functions use separate files which are later renamed to patientdata.txt .

The goal of learning file processing is achieved.