

M.P. BHOJ (OPEN) UNIVERSITY, BHOPAL



BACHELOR OF COMPUTER APPLICATION (B.C.A.)

PROJECT ON

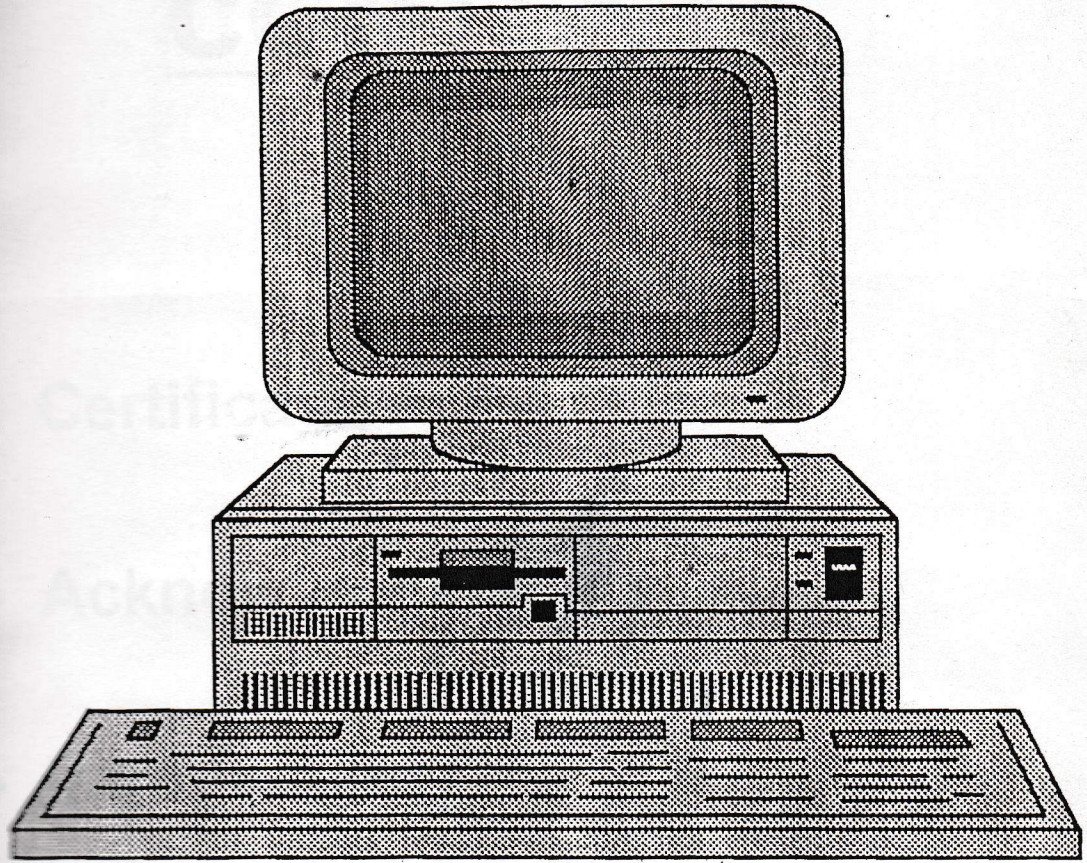
APPLICATION OF HOSPITAL MANAGEMENT

SUBMITTED BY

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GUIDED BY

Dr. RAJEEV SHRIVASTAVA



**WELCOME TO THE
PROJECT**

DEVELOPED BY :---

REETA PAMNANI

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CERTIFICATE
2000-2001

This is to certify that the project report entitled "HOSPITAL MANAGEMENT" submitted by _____
of _____ UNIVERSITY

CERTIFICATE

DATE: _____
PLACE: BHOPAL

DR. RAJESH SHRIVASTAVA

CERTIFICATE

2000 -2001

This to certify that the project report entitled "APPLICATION OF HOSPITAL MANAGEMENT " Submitted to M.P. BHOJ OPEN UNIVERSITY, BHOPAL" For the award of BACHELOR OF COMPUTER APPLICATION (BCA) project work carried out by MISS REETA PAMNANI Rec. No. 97011104038 Respectively under my Guidance.

DATE : 25.9.2001

PLACE : BHOPAL



DR. RAJEEV SHRIVASTAVA

DEWANI HOSPITAL & RESEARCH CENTER

CERTIFICATE
2000 -2001

This to certify that MISS REETA PAMNANI D/O L.D. PAMNANI student of B.C.A. Final Year from BHOJ UNIVERSITY, BHOPAL has completed a project on "HOSPITAL MANAGEMENT" with our hospital.

With Regards,

For DEWANI HOSPITAL & RESEARCH CENTER



C.P. DEWANI

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ACKNOWLEDGEMENT

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REETA PAMNANI

INTRODUCTION

System-introduction

Dewani Hospital & research centre is a leading private hospital in the city .It provides paid cure to the patients. There are number of well – qualified doctors in the hospital. Hospital has specialised section, which deal with different types of problems. Example-Surgery, Orthopedics, Cancer etc Each section has a ward in it. It contains beds and other facilities, so those patients can be admitted there for treatment.

When patient come to hospital for treatment, according to disease, respective department's doctor attends that patient. If the doctor feels that patient should be admitted in the hospital for further treatment, he sends that patient along with an admission slip to ward incharge. Ward incharge admits that patient in the appropriate ward. When patient's treatment is over and is discharged from the, ward incharge produces a bill for patient.

CODING

```
#include <stdlib.h>
#include <stdio.h>
#include <string.h>
#include <conio.h>
#include <stdio.h>
#include <io.h>
#include <dos.h>
#define g gotoxy
#define p printf
#define s scanf
#define v "ABCDEFGHIJKLMNOPQRSTUVWXYZ .-"
#define x "FM"
int  popup(void);
int  popup1(void);
int  popup2(void);
int  popup3(void);
void patient(void);
void patient1(void);
void pmodify(void);
void patient2(void);
void doctor(void);
void doctor1(void);
void doctor2(void);
void ward(void);
void ward1(void);
void ward2(void);
void pentry(void);
void wrep(void);
void wrep1(int,int);
void service(void);
void servicel(void);
void search(int);
int  inform(void);
void pinform(void);
void apinform(void);
void dinform(void);
void adinform(void);
void tinform(void);
void winform(void);
void bill(void);
void receipt(void);
void help(void);
int  putint(int ,int ,int ,int );
int  enterstring(char *, char *, int ,int,int);
void box(int,int,int,int,int);
struct date d;
struct time t;
struct pat
```

```

{
    char nm[15],add[20],dse[10],sex[2],fnm[15];
    int rno,bno,w_type,adv,age,adate[3],ddate[3],dcode;
}p1;
struct war
{
    int w_type,bno,charge,ava;
}w;

struct doc
{
    char dnm[14],dadd[20],spe[15];
    int dage,docode,date[3],fee;
}d1;

struct treat
{
    char tnm[15];
    int rno,bno,tcharge,fee,date[3];
}tre;

struct bill1
{
    int billno,ddate[3],amount,rgno,nday;
}b1;

FILE *fp,*fp1,*fp2,*fp3,*fp4,*fp5,*fp6,*ptr;

int serc;

```

/****MAIN MENU******/**

```

void main()
{
    int ch,ch1,ch2,ch3,ch4,ch5;
    char c[1];
    clrscr();
    ch=0;
    while(ch!=9)
    {
        box(15,3,65,7,5);
        g(25,5);
        textcolor(WHITE+BLINK);
        cputs("DEWANI HOSPITAL AND RESEARCH CENTRE ");
        textcolor(CYAN);
        box(25,10,55,21,7);
        g(27,12);
        p(" 1. Patient .\n ");
    }
}

```

```

g(27,13);
p(" 2. Doctor.\n");
g(27,14);
p(" 3. Ward. \n");
g(27,15);
p(" 4. Treatment.\n");
g(27,16);
p(" 5. Information.\n");
g(27,17);
p(" 6. Bill.");
g(27,18);
p(" 7. Receipt.");
g(27,19);
p(" 8. Help.");
g(27,20);
p(" 9. Quit.");
g(20,23);
p("Enter your choice from no's 1 to 9. : ");
ch=0;
ch=putint(ch,60,23,1);

switch(ch)
{
case 1:
    clrscr();
    popup();
    clrscr();
    break;

case 2:
    clrscr();
    popup1();
    clrscr();
    break;

case 3:
    clrscr();
    ward();
    clrscr();
    break;

case 4:
    clrscr();
    popup3();
    clrscr();
    break;

```

```
    case 5:
        clrscr();
        inform();
        clrscr();
        break;

    case 6:
        clrscr();
        bill();
        clrscr();
        break;

    case 7:
        clrscr();
        receipt();
        clrscr();
        break;

    case 8:
        clrscr();
        help();
        clrscr();
        break;

    case 9:
        clrscr();
        break;

    }
    fflush(stdin);
}

int popup()
{
    int ch1;
    clrscr();
    box(27,5,57,9,5);
    g(32,7);

    p(" ***** PATIENT ***** ");

    box(33,12,47,20,5);
    g(34,14);
    p(" 1. Append . ");
    g(34,15);
```

```

p(" 2. Modify .");
g(34,16);
p(" 3. Exit .");
g(30,21);
ch1=0;
p(" Enter Your Choice :");
ch1=putint(ch1,52,21,1);

switch(ch1)
{
case 1:
    clrscr();
    patient();
    popup();
    break;

case 2:
    clrscr();
    patient1();
    popup();
    break;

case 3:
    clrscr();
    if(ch1==3)
    {
        return(1);
    }
}
return (0);
}

void search(int dcode)
{
    fp1=fopen("doc.hos","rb+");
    fread(&d1,sizeof(struct doc),0,fp1);
    while(!feof(fp1))
    {
        if(d1.docode==dcode)
        {
            break;
        }
        fread(&d1,sizeof(struct doc),1,fp1);
    }
    fclose(fp1);
}

```

*******PATIENT ENTRY*******


```

void patient()
{
    int m=0, n=0;
    char ans='Y';
    clrscr();
    fp3=fopen("ward.hos", "r+");

    fp=fopen("pat.hos", "ab+");

    while(ans=='Y' || ans=='y')
    {
        clrscr();
        g(10,3);
        p("Enter Your Choice      :");
        box(20,5,45,18,10);
        g(25,6);
        p(" WARD  TYPE");
        g(22,8);
        p(" 0 for ICCU.");
        g(22,9);
        p(" 1 for ICU.");
        g(22,10);
        p(" 2 for DELUX.");
        g(22,11);
        p(" 3 for PRIVATE.");
        g(22,12);
        p(" 4 for GENERAL-1.");
        g(22,13);
        p(" 5 for GENERAL-2.");
        m=putint(m, 35, 3, 1);
        clrscr();
        box(20,5,65,20,10);
        g(24,7);
        p("Ward Type\tBed No.\tCharges\tAvailable");
        n=8;
        fread(&w, sizeof(struct war), 1, fp3);

        while(!feof(fp3))
        {
            if(w.w_type==m && w.ava==0)
            {
                g(24,n);

                p("%d\t%d\t%d\t%d", w.w_type, w.bno, w.charge, w.ava);
                n++;
                getch();
                fflush(stdin);
            }
        }
    }
}

```

```

        }
        fread(&w, sizeof(struct war), 1, fp3);
    }
    g(3, 23);
    fflush(stdin);
    p(" Do You Want To Enter Patient's Records
    (y/n)? ");
    s("%c", &ans);
    if(ans=='Y' || ans=='y')
    {
        pentry();
        break;
    }
    fflush(stdin);
}
fclose(fp3);
fclose(fp);
}

```

```

void pentry()
{
    int torec=0;
    int dcode;
    char ans1='Y';
    clrscr();
    pl.rno=0;
    getdate(&d);
    gettime(&t);
    clrscr();
    torec=filelength(fileno(fp))/sizeof(struct pat);

    while(ans1=='Y' || ans1=='y')
    {
        clrscr();
        g(8, 4);
        p(" DEWANI HOSPITAL & RESEARCH CENTRE .");
        g(58, 4);
        p("PATIENT'S ENTRY .");
        box(6, 5, 74, 21, 5);
        g(8, 7);
        torec++;
        pl.rno=torec;
        pl.nm[0]=0;
        pl.fnm[0]=0;
        pl.sex[0]=0;
        pl.add[0]=0;
        pl.dse[0]=0;
        pl.adata[0]=0;
        pl.adata[0]=0;
        pl.adata[0]=0;
    }
}

```

```
pl.age=0;
pl.w_type=0;
pl.bno=0;
pl.adv=0;
p(" Registration No.  : %d",pl.rno);
g(45,7);
p("Admission Date  :");
```

```
g(63,7);
p("%d/%d/%d",d.da_day,d.da_mon,d.da_year);
pl.adata[0]=d.da_day;
pl.adata[1]=d.da_mon;
pl.adata[2]=d.da_year;
g(10,9);
p(" Patient's Name  : ");
enterstring(pl.nm, v, 15, 30,9);
g(10,10);
p(" F/H Name  :");
enterstring(pl.fnm, v, 15, 30,10);
g(10,11);
p(" Sex (F/M)  :");
enterstring(pl.sex, x, 1, 23,11);
g(40,11);
p(" Age  : ");
pl.age=putint(pl.age,47,11,3);
g(10,13);
p(" Address  :");
enterstring(pl.add, v, 15, 25,13);
g(10,14);
p(" Disease  :");
enterstring(pl.dse, v, 15, 25,14);
g(10,15);
p(" Doctor's Code  :");
s("%d",&pl.dcode);
```

```
search(pl.dcode);
```

```
g(10,16);
p(" Doctor's Name  : %s",d1.dnm);
g(10,17);
p(" Specialist  : %s",d1.spe);
g(10,19);
p(" Ward Type.  :");
pl.w_type=putint(pl.w_type,25,19,3);
g(40,19);
p(" Bed No.  :");
pl.bno=putint(pl.bno,52,19,2);
```

```
wrepl(pl.w_type,pl.bno);
```

```

g(15,20);
p(" Deposit Amount : Rs. ");
pl.adv=putint(pl.adv,37,20,5);
fwrite(&pl,sizeof(struct pat),1,fp);
g(8,23);
fflush(stdin);
p(" Do You Want To Continue (y/n)? ");
s("%c",&ans1);

if(ans1=='Y' || ans1=='y')
{
    fclose(fp);
    fclose(fp3);
    patient();
    break;
}
}
}

```

/****WARD REPLACEMENT FUNCTION******/**

```

void wrepl(int a,int b)
{
    int count=0;
    a=pl.w_type;
    b=pl.bno;
    fseek(fp3,0,0);
    fread(&w,sizeof(struct war),1,fp3);

    while(!feof(fp3))
    {
        if(w.w_type==a && w.bno==b)
        {
            g(65,24);
            p("going to change.");
            getch();
            if(w.ava==0)
            {
                p("changed");
                getch();
                w.ava=1;
            }
            else
            {
                w.ava=0;
            }
        }
    }
}

```

```

        fseek(fp3, count*sizeof(struct war), 0);
        fwrite(&w, sizeof(struct war), 1, fp3);
        break;
    }
    count++;
    fread(&w, sizeof(struct war), 1, fp3);
}
}

```

/****PATIENT'S MODIFY******/**

```

void patient1()
{
    int rrno=0, totrec, f;
    int serc=0;
    fp=fopen("pat.hos", "rb+");
    f=0;
    clrscr();
    g(5, 8);
    p(" Enter Registration No. Of Patient To Modify  :");
    rrno=putint(rrno, 60, 8, 3);
    fread(&p1, sizeof(struct pat), 1, fp);

    while(!feof(fp))
    {
        if(p1.rno==rrno)
        {
            f=f+1;
            clrscr();
            g(8, 4);
            p(" DEWANI HOSPITAL & RESEARCH CENTRE .");
            g(58, 4);
            p("PATIENT'S MODIFY .");
            box(6, 5, 74, 21, 5);
            g(8, 7);
            p(" Registration No.   : %d", rrno);
            g(45, 7);
            p("Admission Date   : %d/%d/%d",
              p1.adate[0], p1.adate[1], p1.adate[2]);
            fflush(stdin);
            g(10, 9);
            p(" Patient's Name   :");
            fflush(stdin);
            enterstring(p1.nm, v, 15, 30, 9);
            g(10, 10);
            p(" F/H Name       :");
            enterstring(p1.fnm, v, 15, 30, 10);
        }
    }
}

```

```

g(10,11);
p(" Sex (F/M)  :");
enterstring(pl.sex, x, 1, 23,11);
g(40,11);
p(" Age  : ");
pl.age=putint(pl.age,47,11,3);
g(10,13);
p(" Address  :");
enterstring(pl.add, v, 15, 25,13);
g(10,14);
p(" Disease  : ");
enterstring(pl.dse, v, 15, 25,14);

g(10,15);
p(" Doctor's Code  :");
pl.dcode=putint(pl.dcode,30,15,3);
g(10,17);
p(" Ward Type.  :");
pl.w_type=putint(pl.w_type,25,17,3);
g(40,17);
p(" Bed No.  :");
pl.bno=putint(pl.bno,52,17,2);
g(15,19);
p(" Deposit Amount  : Rs. ");
pl.adv=putint(pl.adv,38,19,5);
fseek(fp,(serc)*sizeof(struct pat),0);
fwrite(&pl,sizeof(struct pat),1,fp);
break;
}
serc++;
fread(&pl,sizeof(struct pat),1,fp);
}
if(f==0)
{
clrscr();
g(10,8);
p("Record Not Found.");
getch();
}
getch();
fclose(fp);
}
int popup1()
{
int ch2;
clrscr();
box(27,5,57,9,5);
g(32,7);

```

```

p(" ***** DOCTOR ***** ");

box(33,12,47,20,5);
g(34,14);
p(" 1. Append . ");
g(34,15);
p(" 2. Modify .");
g(34,16);
p(" 3. Delete . ");
g(34,17);

p(" 4. Exit .");
ch2=0;
g(30,21);
p(" Enter Your Choice :");
fflush(stdin);
ch2=putint(ch2,52,21,1);

switch(ch2)
{
case 1:
    clrscr();
    doctor();
    popup1();
    break;

case 2:
    clrscr();
    doctor1();
    popup1();
    break;

case 3:
    clrscr();
    doctor2();
    popup1();
    break;

case 4:
    clrscr();
    if(ch2==4)
    {
        return(1);
    }
}
return (0);
}

```

/******DOCTOR'S ENTRY******/

```

void doctor()
{
    char an='Y';
    clrscr();
    getdate(&d);
    fp1=fopen("doc.hos","ab+");

    while(an=='Y' || an=='y')
    {
        clrscr();

        g(8,4);
        p(" DEWANI HOSPITAL & RESEARCH CENTRE. ");
        g(58,4);
        p("DOCTOR'S ENTRY.");
        box(6,5,74,15,5);
        g(45,6);
        p(" Date   : ");
        g(55,6);
        p("%d/%d/%d",d.da_day,d.da_mon,d.da_year);
        g(10,7);
        dl.dnm[0]=0;
        dl.dadd[0]=0;
        dl.spe[0]=0;
        dl.dage=0;
        dl.fee=0;
        dl.fee=450;
        p(" Doctor's Code : ");
        s("%d",&dl.docode);
        g(10,8);
        p("Doctor's Name   :");
        enterstring(dl.dnm, v, 14, 28,8);
        g(10,9);
        p("Age   :");
        dl.dage=putint(dl.dage,18,9,3);
        g(10,10);
        p("Address  :");
        s("%s",dl.dadd);
        g(15,12);
        p("Specialist  :");
        enterstring(dl.spe, v, 15, 29,12);
        g(15,13);
        p("Doctor's Fees   : Rs. %d",dl.fee);
        fwrite(&dl,sizeof(struct doc),1,fp1);
        g(8,20);
        fflush(stdin);
        p("Do You Want To Continue (y/n)? ");
        an=getchar();
    }
}

```



```
}
fclose(fp1);
}
```

/****DOCTOR'S MODIFY******/**

```
void doctor1()
{
    int f=0;
    int mcode=0;
    int sercl=0;
    fp1=fopen("doc.hos","r+");
    clrscr();
    g(5,8);

    p(" Enter Doctor's Code Whose Record You Want To Modify
    :");
    mcode=putint(mcode,65,8,3);
    fread(&dl,sizeof(struct doc),1,fp1);

    while(!feof(fp1))
    {
        if(dl.docode==mcode)
        {
            f=f+1;
            clrscr();
            g(8,4);
            p(" DEWANI HOSPITAL & RESEARCH CENTRE. ");
            g(58,4);
            p("DOCTOR'S MODIFY.");
            box(6,5,74,15,5);
            dl.fee=0;
            dl.fee=450;
            g(10,7);
            p(" Doctor's Code : ");
            dl.docode=putint(dl.docode,25,7,3);
            g(10,8);
            p("Doctor's Name  :");
            enterstring(dl.dnm, v, 14, 28,8);
            g(10,9);
            p("Age  :");
            dl.dage=putint(dl.dage,18,9,3);
            g(10,10);
            p("Address  : ");
            enterstring(dl.dadd, v, 15, 22,10);
            g(15,12);
            p("Specialist  :");
            enterstring(dl.spe, v, 15, 29,12);
            g(15,13);
        }
    }
}
```

```

        p("Doctor's Fees : Rs. %d",dl.fee);
        fseek(fp1,(sercl)*sizeof(struct doc),0);
        fwrite(&dl,sizeof(struct doc),1,fp1);
        break;
    }
    sercl++;
    fread(&dl,sizeof(struct doc),1,fp1);
}
if(f==0)
{
    clrscr();
    g(10,8);
    p("Record Not Found .");
}
getch();
fclose(fp1);
}

```

/****DOCTOR'S DELETE******/**

```

void doctor2()
{
    int rc=0;
    int recno=0,totrec=0,f=0;
    clrscr();

    fp1=fopen("doc:hos","r+");
    g(10,8);
    p("Enter Doctor's Code To Delete : ");
    recno=putint(recno,45,8,3);
    totrec=filelength(fileno(fp1)) / sizeof(struct doc);
    fread(&dl,sizeof(struct doc),1,fp1);

    while(!feof(fp1))
    {
        if(dl.docode==recno)
            break;
        rc++;
        fread(&dl,sizeof(struct doc),1,fp1);
    }
    rc++;
    p("\nrecord   %d\n",totrec);
    p("\nrecord no  %d\n",rc);
    getch();
    fflush(stdin);
}

```

```

while(rc<totrec)
{
    fseek(fp1,rc*sizeof(struct doc),0);
    fread(&dl,sizeof(struct doc),1,fp1);
    fseek(fp1,sizeof(struct doc)*(rc-1),0);
    fwrite(&dl,sizeof(struct doc),1,fp1);
    rc++;
    f++;
}
if(rc==totrec)
{
    chsize(fileno(fp1),(totrec-1)*sizeof(struct doc));
    f=1;
}

if(f==0)
{
    clrscr();
    g(10,8);
    p("Record Not Found .");
    getch();
}
else
{
    chsize(fileno(fp1),(totrec-1)*sizeof(struct doc));
}
fclose(fp1);
}

```

/****WARD ENTRY******/**

```

void ward()
{
    char h='Y';
    int cha;
    clrscr();
    fp3=fopen("ward.hos","ab+");

    w.w_type=0;
    w.ava=0;

    while(h=='Y' || h=='y')
    {
        clrscr();
        w.charge=0;
        w.bno=0;
    }
}

```

```
box(6,5,74,22,5);
g(8,4);
p(" DEWANI HOSPITAL & RESEARCH CENTRE. ");
g(58,4);
p("WARD ENTRY.");
box(50,7,70,15,5);
g(55,8);
p("CHOOSE");
g(52,9);
p("0 for ICCU.");
g(52,10);
p("1 for ICU.");
g(52,11);
p("2 for DELUX.");
g(52,12);
p("3 for PRIVATE.");
g(52,13);
p("4 for GENERAL-1.");
g(52,14);
p("5 for GENERAL-2.");
g(12,8);
p(" Ward Type : ");
w.w_type=putint(w.w_type,29,8,1);
g(12,12);
p("Bed No. :");
w.bno=putint(w.bno,29,12,2);
g(12,16);
if(w.w_type==0)
{
    w.charge=700;
}
if(w.w_type==1)
{
    w.charge=400;
}
if(w.w_type==2)
{
    w.charge=450;
}
if(w.w_type==3)
{
    w.charge=500;
}
if(w.w_type==4 || w.w_type==5)
{
    w.charge=175;
}
p("Charges For 24 hrs. : Rs. %d ",w.charge);
box(40,17,65,21,5);
g(50,18);
```

```

        p("CHOOSE");
        g(42,19);
        p("0 for AVAILABLE.");
        g(42,20);
        p("1 for NOT AVAILABLE.");
        g(12,19);
        p("Availability  :");
        w.ava=putint(w.ava,29,19,5);
        fwrite(&w,sizeof(struct war),1,fp3);
        fflush(stdin);
        g(8,23);
        p("Do You Want To Continue (Y/N) ?");
        h=getch();
    }
    fclose(fp3);
}

```

```

int popup3()
{
    int ch4=0;
    clrscr();
    box(27,5,57,9,5);
    g(32,7);

    p(" **** TREATMENT **** ");
    box(30,12,56,20,5);
    g(32,14);
    p(" 1. Services Entry. ");
    g(32,15);
    p(" 2. Treatment Provided.");
    g(32,16);
    p(" 3. Exit .");
    g(30,21);
    ch4=0;
    p(" Enter Your Choice  :");
    ch4=putint(ch4,52,21,1);
    switch(ch4)
    {
        case 1:
            clrscr();
            service();
            popup3();
            break;

        case 2:
            clrscr();
            servicel();
            popup3();
            break;
    }
}

```

```

case 3:
    clrscr();
    if(ch4==3)
    {
        return(1);
    }
}
return(0);
}

```

/****SERVICE ENTRY******/**

```

void service()
{
    char z='Y';
    fp4=fopen("treat.hos","ab+");

    while(z=='Y' || z=='y')
    {
        tre.tnm[0]=0;
        tre.tcharge=0;
        clrscr();
        box(6,5,74,12,5);
        g(8,4);
        p(" DEWANI HOSPITAL & RESEARCH CENTRE. ");
        g(58,4);
        p("SERVICES ENTRY.");
        g(10,8);
        p(" Treatment Name : ");
        enterstring(tre.tnm, v, 10, 32,8);
        g(10,10);
        p(" Service Charge : ");
        tre.tcharge=putint(tre.tcharge,28,10,5);
        fwrite(&tre,sizeof(struct treat),1,fp4);
        fflush(stdin);
        g(8,15);
        p(" Do You Want To Continue (Y/N) ? ");
        z=getchar();
    }
    fclose(fp4);
}

```

/****SERVICE PROVIDING ENTRY******/**

```

void servicel()
{
    char snm[15],file[10];
    int regno=0,f=0;
    getdate(&d);
    fp4=fopen("treat.hos","rb+");
    fp=fopen("pat.hos","rb+");
    clrscr();
    tre.tnm[0]=0;
    snm[0]=0;
    tre.rno=0;
    tre.date[0]=0;
    tre.fee=450;
    pl.w_type=0;
    pl.bno=0;
    clrscr();

    g(6,8);
    p(" Enter The Registration No. Of The Patient To Whom
    You Are Providing Treatment      :");
    regno=putint(regno,12,9,3);
    fflush(stdin);
    fread(&pl,sizeof(struct pat),1,fp);

    while(!feof(fp))
    {
        if(pl.rno==regno)
        {
            f=f+1;
            itoa(pl.rno,file,10);
            fp6=fopen(file,"ab+");
            clrscr();
            box(6,5,74,18,5);
            g(8,4);
            p(" DEWANI HOSPITAL & RESEARCH CENTRE. ");
            g(48,4);
            p("TREATMENT PROVIDING ENTRY.");
            g(50,7);
            p("Date      :");
            g(59,7);
            p("%d/%d/%d",d.da_day,d.da_mon,d.da_year);
            g(10,9);
            p("Registration No Of Patient      : %d",regno);
            g(14,11);
            p(" Name          : %s",pl.nm);
            fflush(stdin);
            g(14,12);
        }
    }
}

```

```

p(" Ward Type   : %d",p1.w_type);
g(50,12);
p(" Bed No.     : %d",p1.bno);
g(14,13);
p("Treatment Provided To Patient  :");
enterstring(snm, v, 10, 48,13);
fflush(stdin);
fseek(fp4,0,0);
fread(&tre,sizeof(struct treat),1,fp4);
while(!feof(fp4))
{
    if(strcmp(snm,tre.tnm)==0)
    {
        g(14,14);
        p("Service Charge   :
        %d",tre.tcharge);
        getch();
    }
    fread(&tre,sizeof(struct treat),1,fp4);
}
fwrite(&tre,sizeof(struct treat),1,fp6);
}
fread(&p1,sizeof(struct pat),1,fp);
}
if(f==0)
{
    clrscr();
    g(10,8);
    p("Record Not Found");
}
getch();

```

```

fflush(stdin);
fclose(fp4);
fclose(fp);
fclose(fp6);
}

```

```

int inform()
{
    int ch5=0;
    clrscr();
    box(27,5,57,9,5);
    g(32,7);
    p(" **** INFORMATION **** ");
    box(30,11,55,22,5);
    g(32,13);
    p(" 1. A Patient. ");
    g(32,14);
}

```



```

p(" Ward Type   : %d",pl.w_type);
g(50,12);
p(" Bed No.     : %d",pl.bno);
g(14,13);
p("Treatment Provided To Patient  :");
enterstring(snm, v, 10, 42,13);
fflush(stdin);
fseek(fp4,0,0);
fread(&tre,sizeof(struct treat),1,fp4);
while(!feof(fp4))
{
    if(strcmp(snm,tre.tnm)==0)
    {
        g(14,14);
        p("Service Charge   :
        %d",tre.tcharge);
        getch();
    }
    fread(&tre,sizeof(struct treat),1,fp4);
}
fwrite(&tre,sizeof(struct treat),1,fp6);
}
fread(&pl,sizeof(struct pat),1,fp);
}
if(f==0)
{
    clrscr();
    g(10,8);
    p("Record Not Found");
}
getch();

fflush(stdin);
fclose(fp4);
fclose(fp);
fclose(fp6);

int inform()

int ch5=0;
clrscr();
box(27,5,57,9,5);
g(32,7);
p(" **** INFORMATION **** ");
box(30,11,55,22,5);
g(32,13);
p(" 1. A Patient. ");
g(32,14);

```

```
p(" 2. A Doctor .");
g(32,15);
p(" 3. All The Patient .");
g(32,16);
p(" 4. All The Doctors .");
g(32,17);
p(" 5. Treatment.");
g(32,18);
p(" 6. Ward.");
g(32,19);
p(" 7. Exit .");
g(30,23);
ch5=0;
p(" Enter Your Choice :");
ch5=putint(ch5,52,23,1);
```

```
switch(ch5)
```

```
{
```

```
case 1:
```

```
clrscr();
pinform();
inform();
break;
```

```
case 2:
```

```
clrscr();
dinform();
inform();
break;
```

```
case 3:
```

```
clrscr();
apinform();
inform();
break;
```

```
case 4:
```

```
clrscr();
adinform();
inform();
break;
```

```
case 5:
```

```
clrscr();
tinform();
inform();
break;
```

```

case 6:
    clrscr();
    winform();
    inform();
    break;

case 7:
    clrscr();
    if(ch5==7)
    {
        return(1);
    }
}
return(0);
}

```

/****PATIENT'S INFORMATION******/**

```

void pinform()
{
    int rrno=0,totrec,f=0;
    fp=fopen("pat.hos","rb+");
    clrscr();
    g(5,8);
    p(" Enter Registration No. Of Patient Whose inf. You
Want ? ");
    rrno=putint(rrno,65,8,3);
    // totrec=filelength(fileno(fp))/sizeof(struct pat);
    fread(&p1,sizeof(struct pat),0,fp);

    while(!feof(fp))
    {
        if(p1.rno==rrno)
        {
            f=f+1;
            clrscr();
            g(8,4);
            p(" DEWANI HOSPITAL & RESEARCH CENTRE .");
            g(52,4);
            p("PATIENT'S INFORMATION .");
            box(6,5,74,21,5);
            g(8,7);
            p(" Registration No. : %d",rrno);
            g(45,7);
        }
    }
}

```

```

        p("Admission Date :
%d/%d/%d",pl.adata[0],pl.adata[1],pl.adata[2]);
        g(10,9);
        p(" Patient's Name : %s ",pl.nm);
        fflush(stdin);
        g(10,10);
        p(" F/H Name : %s",pl.fnm);
        g(10,11);
        p(" Sex (F/M) : %s",pl.sex);
        g(40,11);
        p(" Age : %d",pl.age);
        g(10,13);
        p(" Address : %s",pl.add);
        g(10,14);
        p(" Disease : %s ",pl.dse);
        g(10,15);
        p(" Doctor's Code : %d",pl.dcode);
        g(10,17);
        p(" Ward Type. : %d",pl.w_type);
        g(40,17);
        p(" Bed No. : %d" ,pl.bno);
        g(15,19);
        p(" Deposit Amount : %d", pl.adv);
    }
    fread(&pl,sizeof(struct pat),1,fp);
}
if(f==0)
{
    clrscr();
    g(10,8);
    p("Record Not Found.");
}
getch();
fclose(fp);
}

```

/****DOCTOR'S INFORMATION******/**

```

void dinform()
{
    int dcode=0,f=0;
    clrscr();
    getdate(&d);
    fpl=fopen("doc.hos","rb+");
    clrscr();
}

```

```

g(8,10);
p("Enter Doctor Code Of Doctor You Want inf. About ?");
dcode=putint(dcode,65,10,3);
fread(&d1,sizeof(struct doc),0,fp1);

while(!feof(fp1))
{
    if(d1.docode==dcode)
    {
        f=f+1;
        clrscr();
        g(8,4);
        p(" DEWANI HOSPITAL & RESEARCH CENTRE. ");
        g(52,4);
        p("DOCTOR'S INFORMATION.");
        box(6,5,74,15,5);
        g(45,6);
        p(" Date   : ");

        g(55,6);
        p("%d/%d/%d",d.da_day,d.da_mon,d.da_year);
        g(10,7);
        p(" Doctor's Code : %d ",dcode);
        g(10,8);
        p("Doctor's Name   : %s",d1.dnm);
        g(10,9);
        p("Age    : %d",d1.dage);
        g(10,10);
        p("Address : %s",d1.dadd);
        g(15,12);
        p("Specialist : %s",d1.spe);
    }
    fread(&d1,sizeof(struct doc),1,fp1);
}
if(f==0)
{
    clrscr();
    g(10,8);
    p("Record Not Found.");
}
fflush(stdin);
getch();
fclose(fp1);
}

```

*******ALL PATIENT'S INFORMATION*******

```

g(8,10);
p("Enter Doctor Code Of Doctor You Want inf. About ?");
dcode=putint(dcode,65,10,3);
fread(&d1,sizeof(struct doc),0,fp1);

while(!feof(fp1))
{
    if(d1.docode==dcode)
    {
        f=f+1;
        clrscr();
        g(8,4);
        p(" DEWANI HOSPITAL & RESEARCH CENTRE. ");
        g(52,4);
        p("DOCTOR'S INFORMATION.");
        box(6,5,74,15,5);
        g(45,6);
        p(" Date : ");

        g(55,6);
        p("%d/%d/%d",d.da_day,d.da_mon,d.da_year);
        g(10,7);
        p(" Doctor's Code : %d ",dcode);
        g(10,8);
        p("Doctor's Name : %s",d1.dnm);
        g(10,9);
        p("Age : %d",d1.dage);
        g(10,10);
        p("Address : %s",d1.dadd);
        g(15,12);
        p("Specialist : %s",d1.spe);
    }
    fread(&d1,sizeof(struct doc),1,fp1);
}
if(f==0)
{
    clrscr();
    g(10,8);
    p("Record Not Found.");
}
fflush(stdin);
getch();
fclose(fp1);
}

```

/****ALL PATIENT'S INFORMATION******/**

```

void apinform()
{
    int totrec,n;
    // char a='Y';
    clrscr();
    fp=fopen("pat.hos","rb");
    n=6;
    box(2,2,78,23,5);
    g(4,3);
    p("RNo.      Name      Age      Sex      Do.Code      W_Type
    Bed No.");
    fread(&p1,sizeof(struct pat),1,fp);

    while(!feof(fp))
    {
        g(4,n);
        p("%3d   %8s   %3d   %2s   %3d   %3d
        %3d",p1.rno,
        p1.nm,p1.age,p1.sex,p1.dcode,p1.w_type,p1.bno);
        n++;
        fflush(stdin);
        fread(&p1,sizeof(struct pat),1,fp);
    }
    getch();
    fclose(fp);
}

```

/****ALL DOCTOR'S INFORMATION******/**

```

void adinform()
{
    int totrec,n;
    clrscr();
    fp1=fopen("doc.hos","rb");
    n=6;
    box(2,2,78,23,5);
    g(4,3);
    p("Doctor's code   Name\t   Age   Address\t
Specialist ");
    fread(&d1,sizeof(struct doc),1,fp1);

    while(!feof(fp1))
    {
        g(4,n);

```

```

                p("    %3d    %8s    %5d    %8s
%8s ", d1.docode,
                d1.dnm, d1.dage, d1.dadd, d1.spe);
                n++;
                fflush(stdin);
                fread(&d1, sizeof(struct doc), 1, fp1);
            }
            getch();
            fclose(fp1);
        }

```

*******WARD INFORMATION*******

```

void winform()
{
    int totrec;
    int m=0, n=0;
    clrscr();
    fp3=fopen("ward.hos", "rb+");
    clrscr();
    g(10, 3);
    p("Enter Your Choice");
    box(20, 5, 45, 18, 10);
    g(25, 6);
    p(" WARD TYPE");
    g(22, 8);
    p(" 0 for ICCU:");
    g(22, 9);
    p(" 1 for ICU.");
    g(22, 10);
    p(" 2 for DELUX.");
    g(22, 11);
    p(" 3 for PRIVATE.");
    g(22, 12);
    p(" 4 for GENERAL-1.");
    g(22, 13);
    p(" 5 for GENERAL-2.");
    m=putint(m, 30, 3, 1);
    clrscr();
    box(10, 5, 70, 20, 10);
    g(14, 7);
    p("Ward Type\tBed No.\tCharges\tAvailable");
    n=8;
    fread(&w, sizeof(struct war), 1, fp3);

    while(!feof(fp3))

```



```

    {
        if(w.w_type==m)
        {
            g(18,n);
        }
        p("%d\t\t%d\t\t%d\t\t%d",w.w_type,w.bno,w.charge,w.ava);
        n++;
    }
    fread(&w,sizeof(struct war),1,fp3);
}
fflush(stdin);
getch();
fclose(fp3);
}

```

/****TREATMENT LIST******/**

```

void tinform()
{
    int totrec,n;
    clrscr();
    fp4=fopen("treat.hos","rb+");
    n=6;
    box(2,2,78,23,5);
    g(4,3);
    p("Treatment Name\t      Charges\t ");
    fread(&tre,sizeof(struct treat),1,fp4);

    while(!feof(fp4))
    {
        g(4,n);
        p("%s\t      %d\t ",tre.tnm,tre.tcharge);
        n++;
        fread(&tre,sizeof(struct treat),1,fp4);
    }
    getch();
    fclose(fp4);
}

```

/****BILL PROGRAMME******/**

```

void bill()
{

```

```

char file[10];
int rrno,totrec1=0;
int dcode,totch,f=0,mon=0,tch=0,total=0;
clrscr();
fp2=fopen("bill.hos","ab+");
fp=fopen("pat.hos","r+");
fp3=fopen("ward.hos","r+");
ptr=fopen("PRN","w");
getdate(&d);
totrec1=filelength(fileno(fp2))/sizeof(struct bill1);
clrscr();
g(5,8);
p(" Enter Registration No. Of Patient Whose Bill You
Want ? ");
s("%d",&rrno);
totrec1++;
b1.billno=totrec1;
totch=0;
d1.fee=0;
p1.adv=0;
b1.amount=0;
b1.nday=0;
clrscr();
fseek(fp,0,0);
fread(&p1,sizeof(struct pat),1,fp);
while(!feof(fp))
{
    if(p1.rno==rrno)
    {
        f=f+1;
        b1.rgno=p1.rno;
        itoa(p1.rno,file,10);
        fp6=fopen(file,"rb+");
        totch=0;
        fread(&tre,sizeof(struct treat),1,fp6);
        while(!feof(fp6))
        {
            totch=totch+tre.tcharge;
            fread(&tre,sizeof(struct treat),1,fp6);
        }
        g(8,2);
        p(" DEWANI HOSPITAL & RESEARCH CENTRE .");
        g(56,2);
        p("PATIENT'S BILL .");
        box(6,3,74,22,5);
        g(8,4);
        p("Bill No. : %d",b1.billno);
        g(12,6);
        p(" Registration No. : %d",b1.rgno);
        g(45,6);
    }
}

```

```

p(" Date : ");
p("%d/%d/%d",d.da_day,d.da_mon,d.da_year);
b1.ddate[0]=d.da_day;
b1.ddate[1]=d.da_mon;
b1.ddate[2]=d.da_year;
g(12,7);
p(" Patient's Name : %s ",p1.nm);
fflush(stdin);
g(12,8);
p("Ward Type : %d",p1.w_type);
g(12,9);
p(" Bed No. : %d" ,p1.bno);
if(b1.ddate[1]>p1.adata[1])
{
    mon=b1.ddate[1]-p1.adata[1];
}
b1.nday=mon*30-p1.adata[0]+b1.ddate[0] ;
fseek(fp3,0,0);
fread(&w,sizeof(struct war),1,fp3);
while(!feof(fp3))
{
    if(w.w_type==p1.w_type)
    {
        tch=b1.nday*w.charge;
        break;
    }
    fread(&w,sizeof(struct war),1,fp3);
}
g(45,9);
p("Total No. Of Days : %d",b1.nday);

wrepl(p1.w_type,p1.bno);

g(7,10);
p("-----");
g(8,11);
p("Particulars ");
g(45,11);
p("Charges ");
g(7,12);

p("-----");
g(7,14);
p(" Room Charges : Rs. %d",tch);
d1.fee=450;
g(7,15);
p(" Doctor Fees : Rs.
%d",d1.fee );
g(7,16);

```

```

        p( "Other Charges :                               Rs.
%d", totch);
        total=tch+d1.fee+totch;
        g(38,17);
        p("-----");
        g(40,18);
        p(" Total           : Rs. %d",total);
        g(7,19);
        p("Deposit      : Rs. %d",p1.adv);
        g(7,20);
        p("-----");
        g(40,21);
        b1.amount=total-p1.adv;
        p("Net Amount To Pay : Rs. %d",b1.amount);
        fwrite(&b1,sizeof(struct bill1),1,fp2);

```

```

break;

```

```

    }
    fread(&p1,sizeof(struct pat),1,fp);
    }

```

```

if(f==0)
{
    clrscr();
    g(10,8);
    p("Record Not Found");
}

```

```

getch();
fflush(stdin);
fclose(fp);
fclose(fp3);
fclose(fp2);
fclose(fp6);
fclose(ptr);
}

```

/****RECEIPT******/**

```

void receipt()
{
    int rrno=0,f=0,am=0;
    clrscr();
    fp2=fopen("bill.hos","ab+");
    fp=fopen("pat.hos","rb+");
    getdate(&d);
    g(5,8);
}

```

```

p(" Enter Registration No. Of Patient Whose inf. You
Want ? ");
rrno=putint(rrno,65,8,3);
// totrec=filelength(fileno(fp))/sizeof(struct pat);
fseek(fp2,0,0);

fread(&p1,sizeof(struct pat),0,fp);
while(!feof(fp))
{
    if(p1.rno==rrno)
    {
        f=f+1;
        clrscr();
        box(10,5,73,22,5);
        g(16,7);
        p("                DEWANI HOSPITAL * & RESEARCH
CENTER");
        g(15,9);
        p("                E-7 HIG-454,Arera Colony Bhopal-
462016.");
        g(14,12);
        p(" Reg_no.   :   %d",p1.rno);
        g(50,12);
        p(" Date       :   " );
        g(60,12);
        p("%d/%d/%d",d.da_day,d.da_mon,d.da_year);
        g(18,14);
        p(" Received with thanks from %s
concessional the ",p1.nm);

        fread(&b1,sizeof(struct bill1),1,fp2);
        while(!feof(fp2))
        {
            if(b1.rgno==p1.rno)
            {
                am=b1.amount;
                break;
            }
        }
        fread(&b1,sizeof(struct bill1),1,fp2);
    }

    g(18,15);
    p(" sum of Rupees   %d   only by cash payment
.",am);

    g(25,17);
    p(" Rs. %d",am);
    g(20,18);
    p(" Cheques are subject to Realization.");
    g(40,19);

```

```

        p(" For Dewani Hospital & ");
        g(50,20);
        p(" Research Centre.");
        break;
    }
    fread(&p1,sizeof(struct pat),1,fp);
}
if(f==0)
{
    clrscr();
    g(10,8);
    p(" Record Not Found.");
}
getch();
fclose(fp);
fclose(fp2);
}

```

/****HELP PROGRAMME******/**

```

void help()
{
    clrscr();
    g(4,3);
    p("DEWANI HOSPITAL & RESEARCH CENTRE .");
    g(65,3);
    p("HELP ");
    bcox(2,4,78,24,5);
    g(14,6);
    p(" 1. Patient :-");
    g(28,7);
    p("By choosing this option from the main menu we can");
    g(4,8);
    p(" enter patient's records & also modify them if
needed.");
    g(14,9);
    p(" 2.Doctor :- ");
    g(28,10);
    p("By choosing this option we can enter doctor's ");
    g(4,11);
    p("details & modify & delete their records if needed.");
    g(14,12);
    p(" 3. Ward :-");
    g(28,13);
    p(" We enter information of ward like bed availability
,");
}

```

```

g(4,14);
p(" charges by choosing this option.");
g(14,15);
p(" 4. Treatment  :-");
g(28,16);
p("We can enter treatment information of hospital &
we");
g(4,17);
p(" can also enter service information provided to
patient individually .");
g(14,18);
p(" 5. Information  :-");
g(28,19);
p("By this option we get details of all the parts of");
g(4,20);
p("hospital.");
g(14,21);
p(" 6. Bill  :-");
g(28,22);
p(" We get final bill of patient (to pay) by choosing
");
g(4,23);
p("this option.");
getch();
}

```

```

void box(int ll,int tt,int rr,int bb,int c)
{
int a,e,r,t,b,l;
l=ll;
t=tt;
r=rr;
b=bb;
textcolor(c);
for(a=l;a<r;a++)
{
g(a,t);
cprintf("%c",205);
g(a,b);
cprintf("%c",205);
}
for(e=t;e<=b;e++)
{
g(l,e);
cprintf("%c",186);
if(e==t) { g(l,e);cputs("É");}
if(e==b) { g(l,e);cputs("È");}
g(r,e);
cprintf("%c",186);
if(e==t) { g(r,e);cputs("»");}
}
}

```

```

        if(e==b) {      g(r,e);cputs("1/4");}
    }
    textcolor(WHITE);

}

int putint(int o,int c,int r,int z)
{
    int i;
    char nm[10] ;
    nm[0]=0;
    if(o!=0) itoa(o,nm,10);
    if (!enterstring(nm,"1234567890", z,c,r /*|| (s[0]
== 0)*/)
        return 0;
    nm[z+1]=0;
    i=atoi(nm);
    return(i);
}

```

```

int enterstring(char *s, char *legal, int maxlength,int col,int
row)
{
    int c,a, len = strlen(s), pos = len;// insert = TRUE;
    // char c;
    if(len>0)
    {
        g(col,row);
        puts(s);
    }
    do
    {
        gotoxy(col+pos , row);
        switch(c = getch())
        {
            case 8 :
                if (pos > 0)
                {
                    pos--;
                    len--;
                    gotoxy(col+pos,row);
                    puts(" ");
                    gotoxy(col+pos,row);
                }
                break;
            case 27 :

```



```
len = 0;
break;

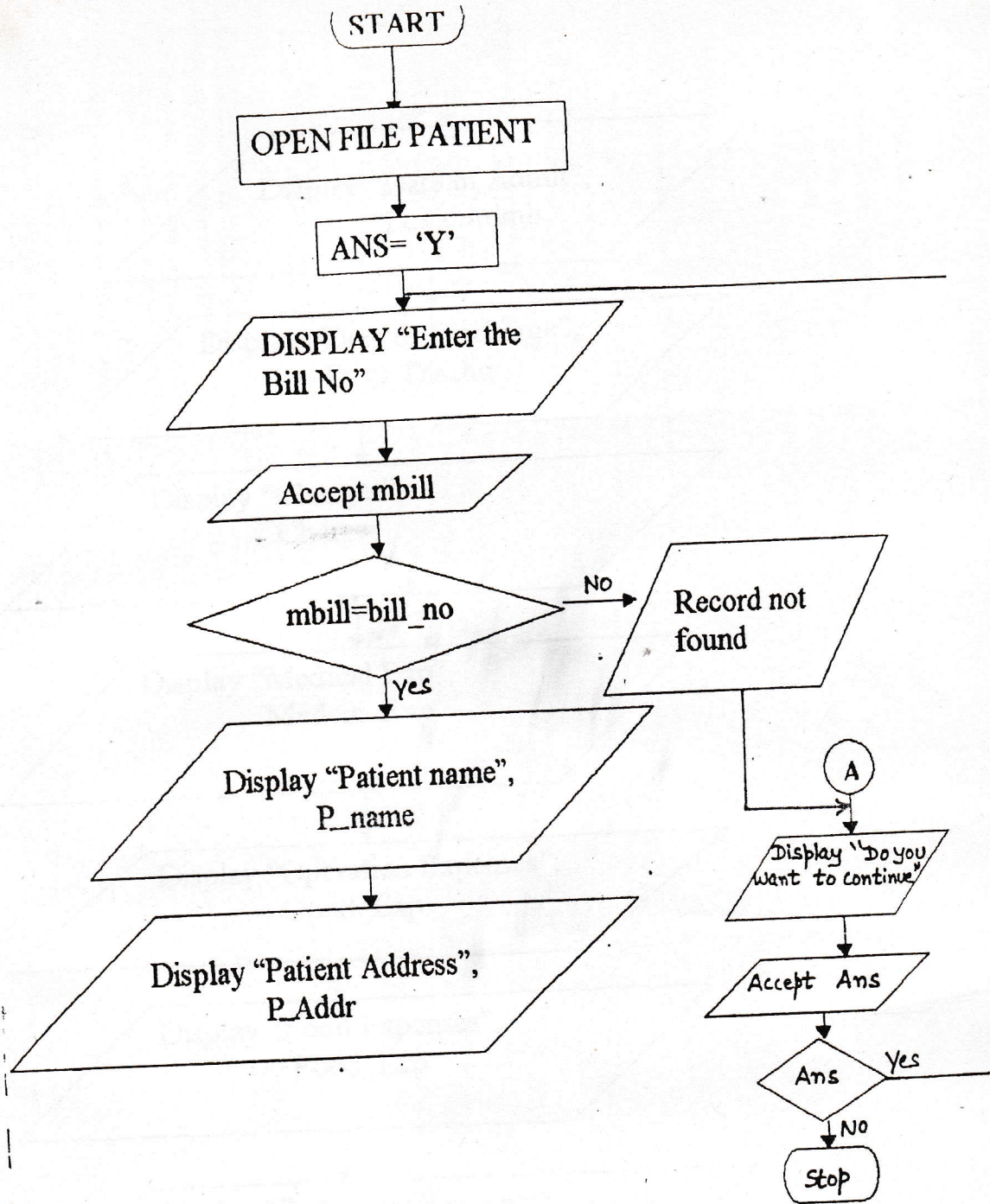
default :
if (((legal[0] == 0) || (strchr(legal, c) != NULL)) &&
((c >= ' ') && (c <= '~'))) &&
(len < maxlength)
{
    printf("%c ", c);
    s[len]=c;
    len++;
    pos++;
}
else
if(c!=13) printf("\a");
break;
} /* switch */
s[len] = 0;
}
while ((c != 13) && (c != 27));

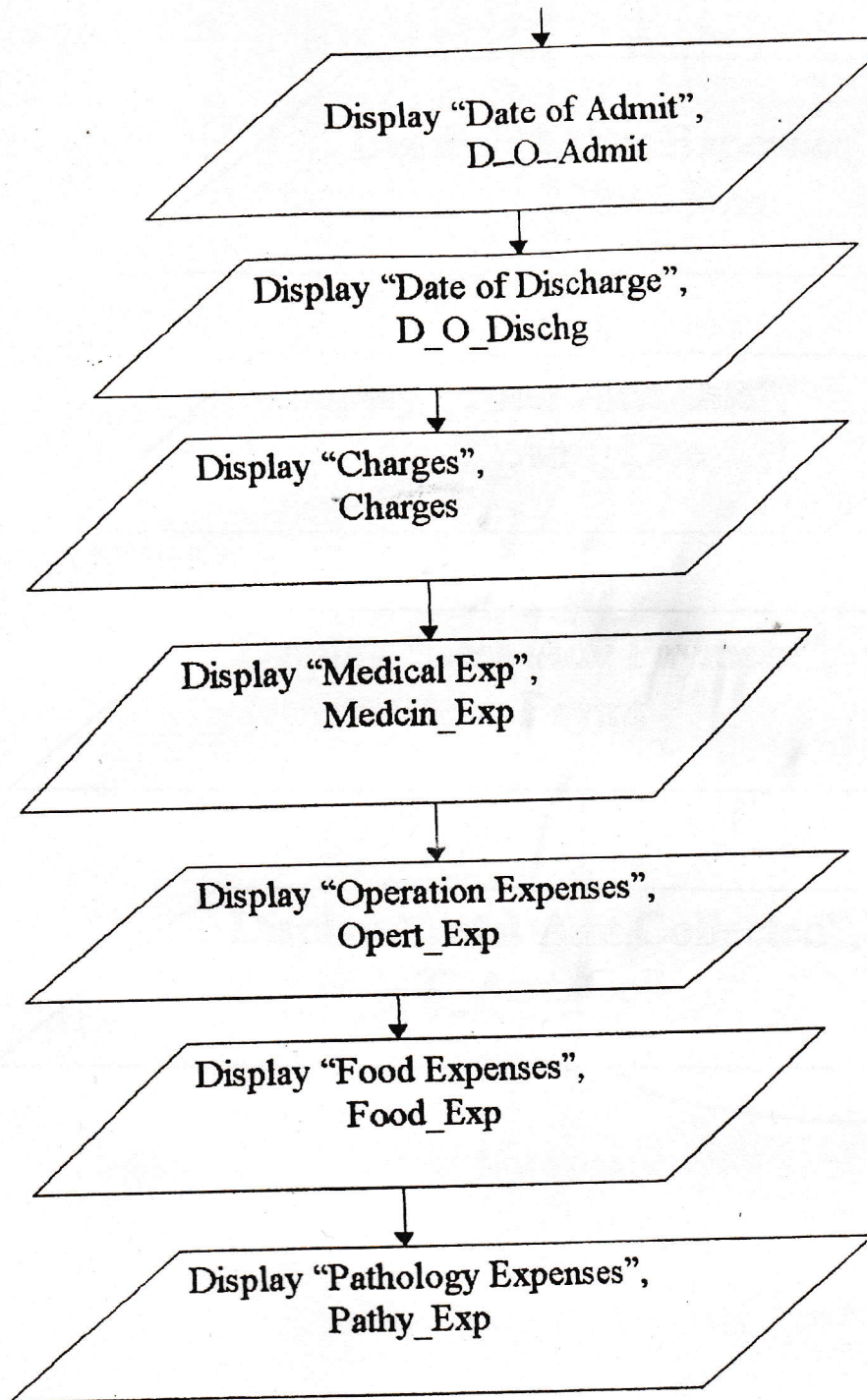
return(c != 27);

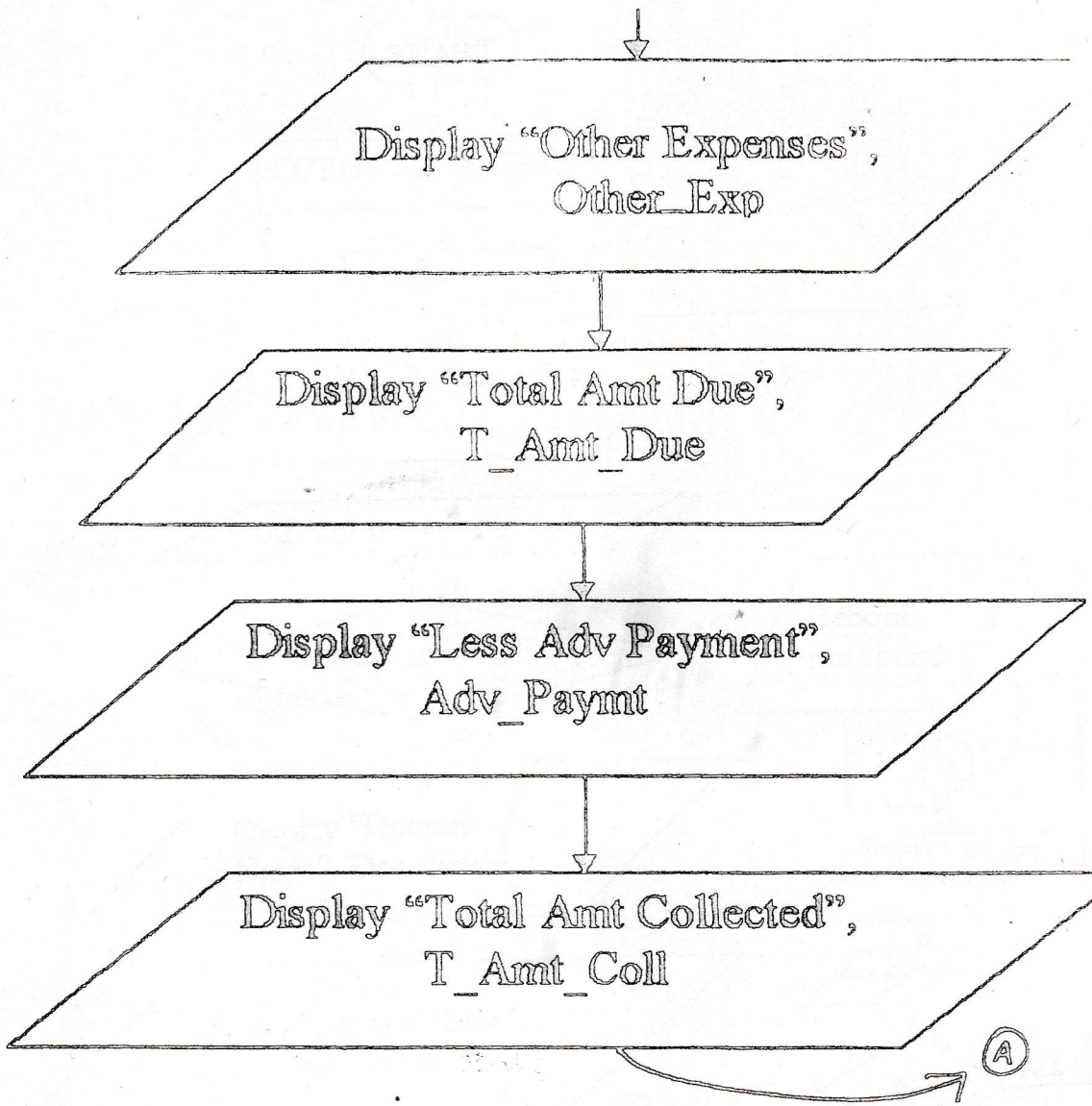
} /* editstring */

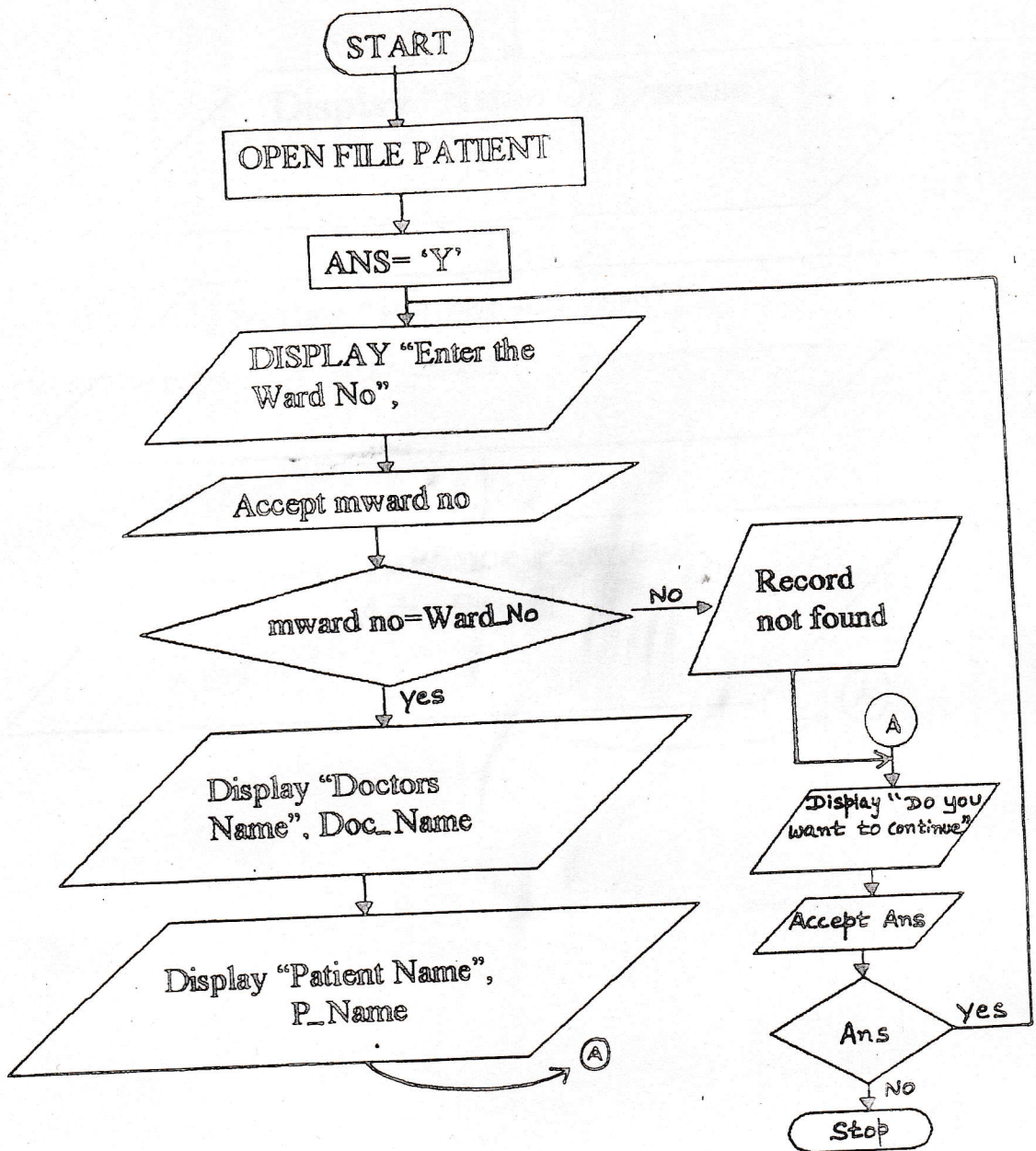
//*****\\
```

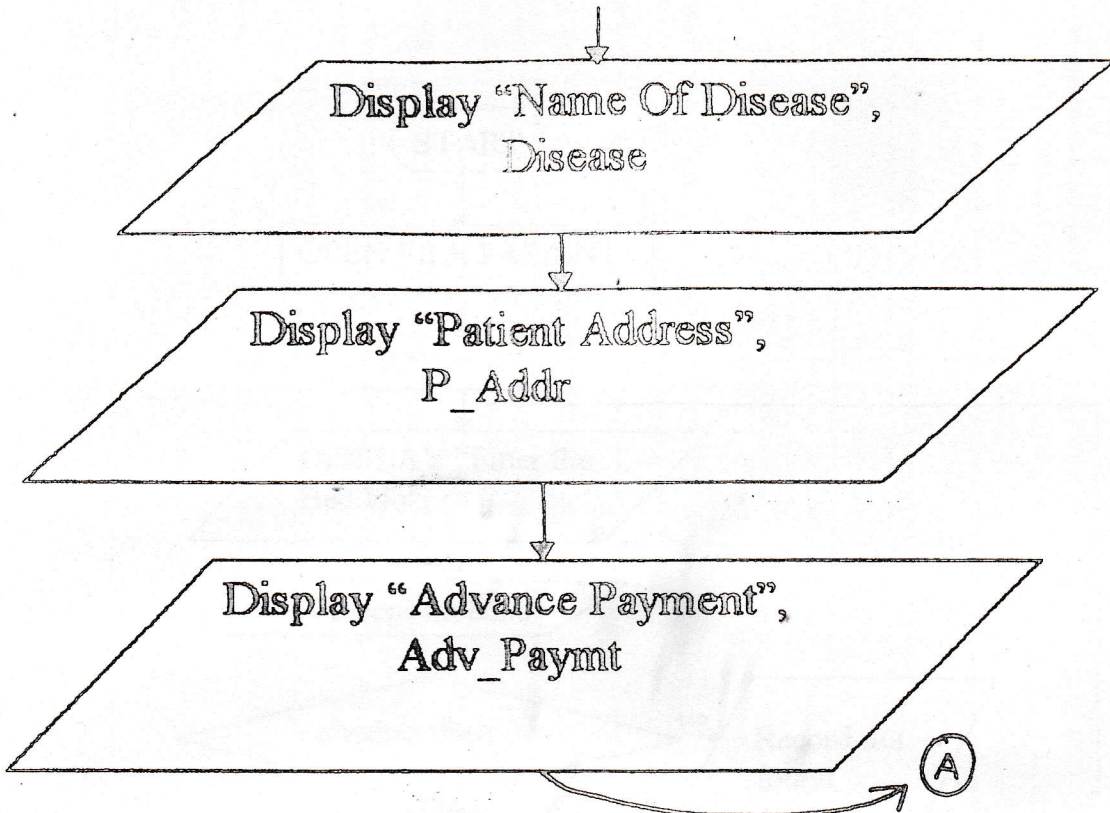
FLOW CHART

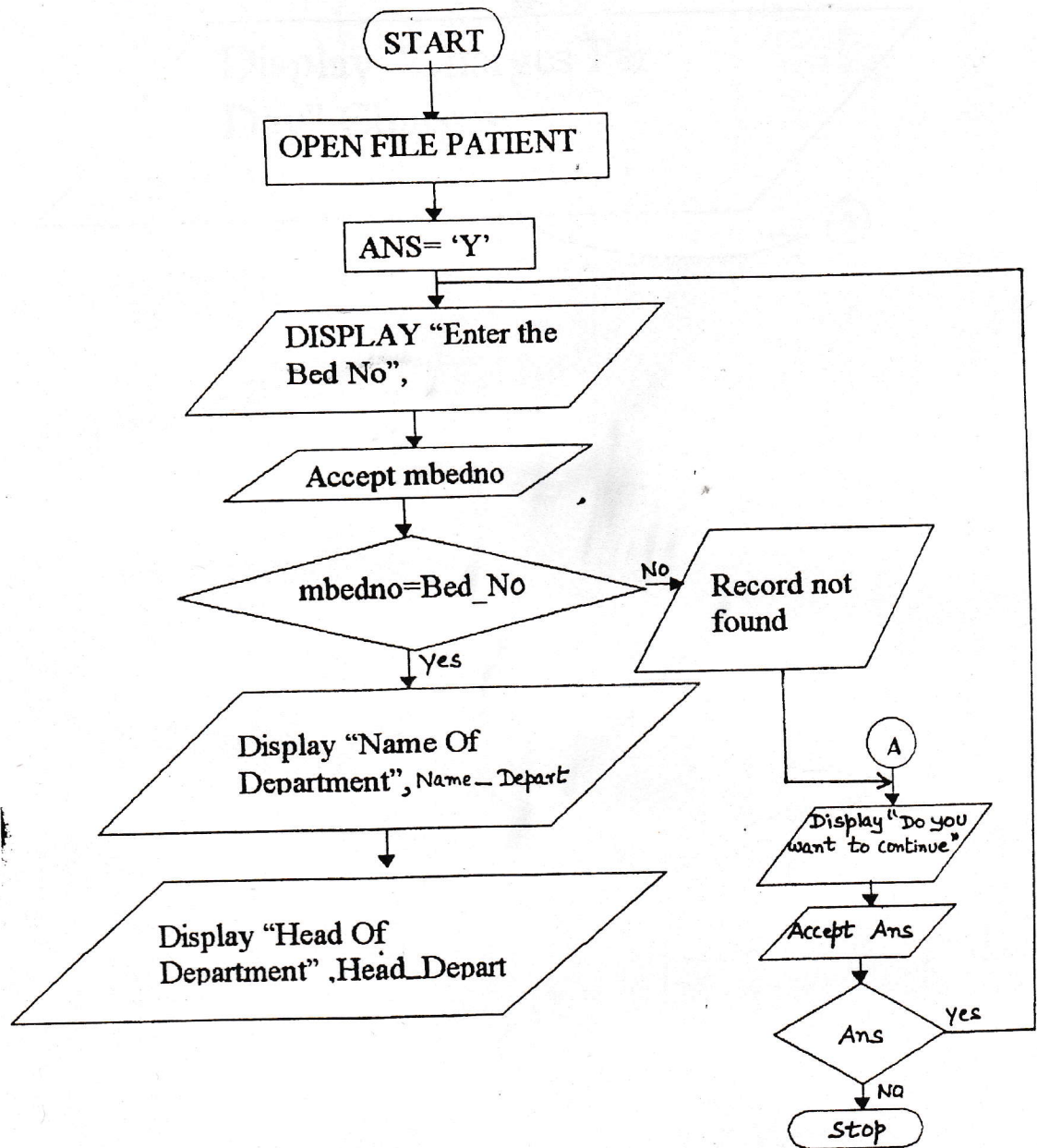


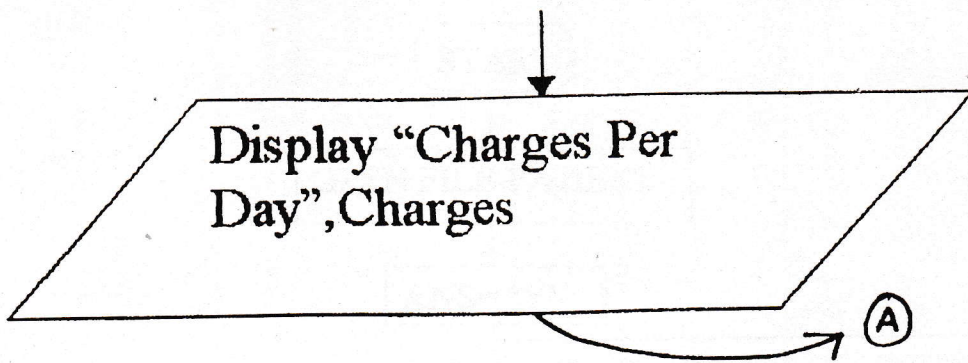


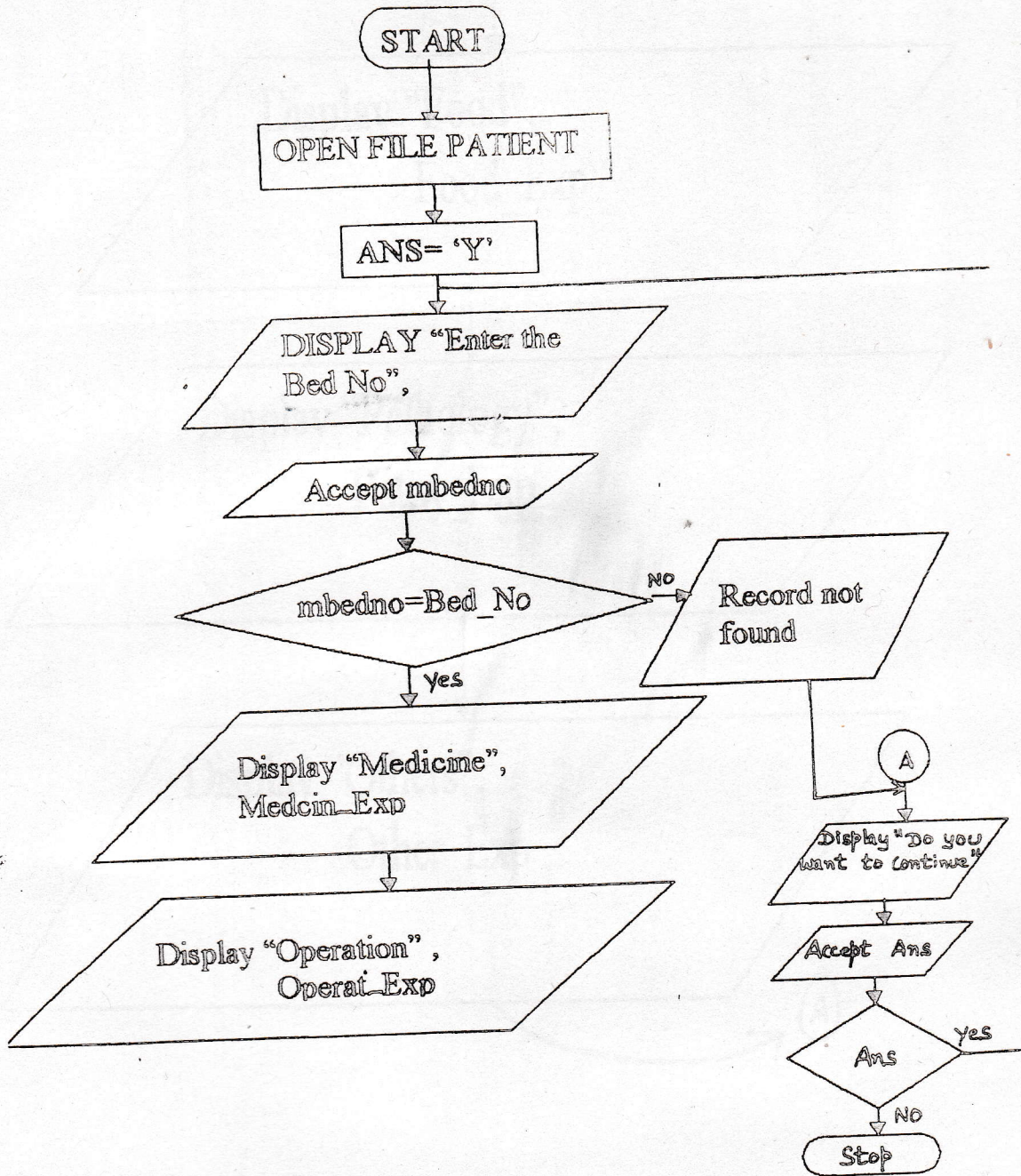


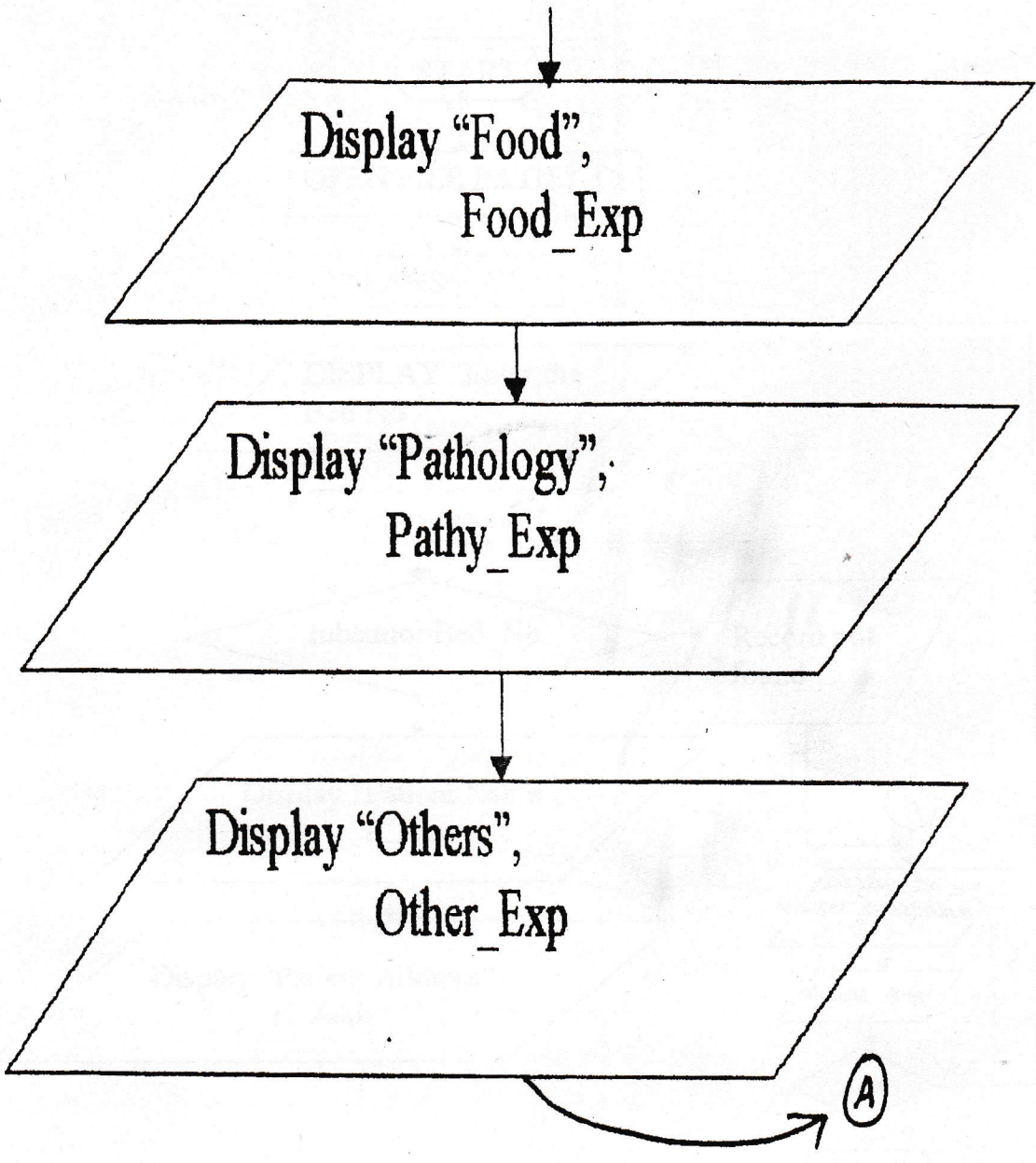


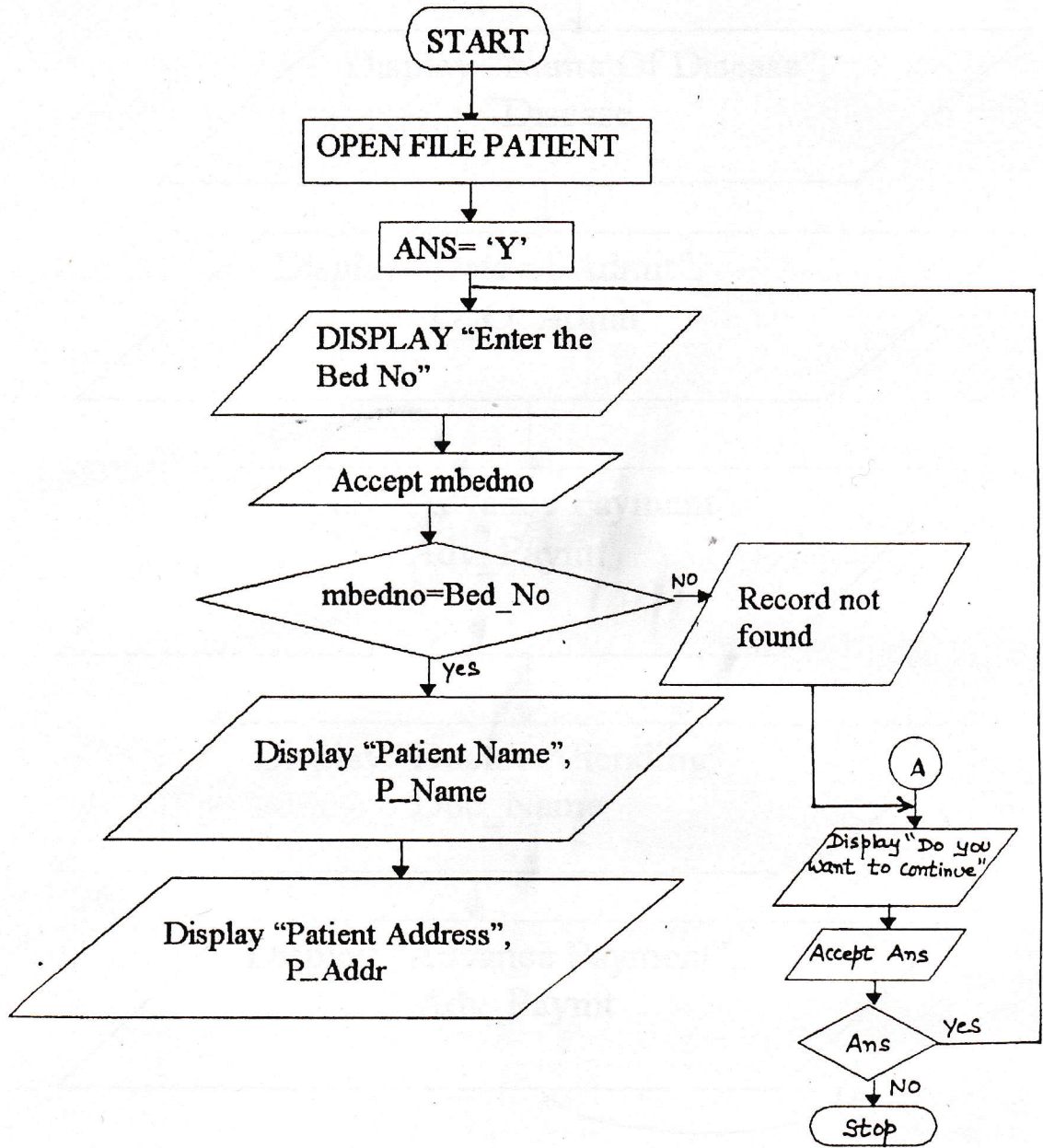


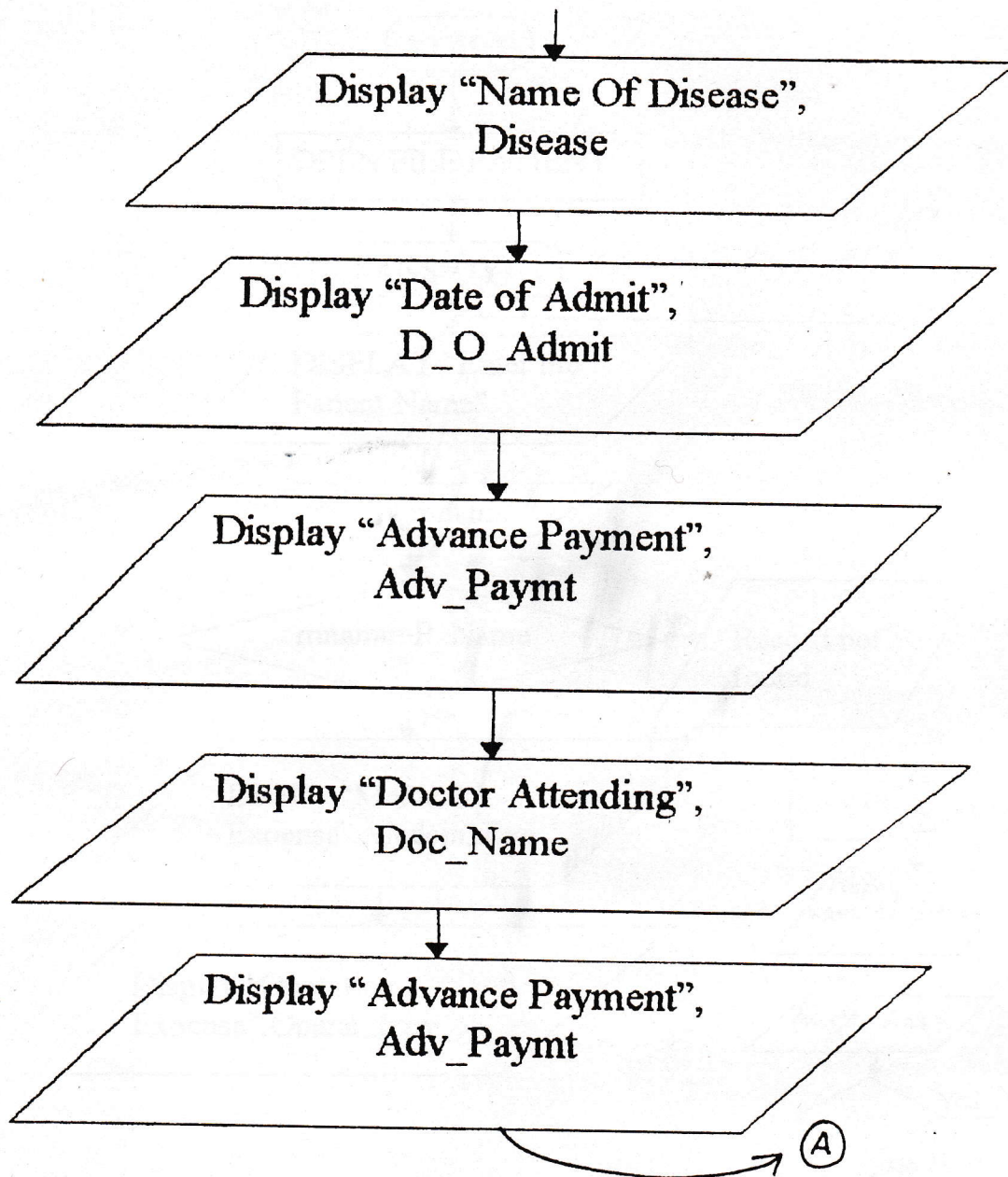


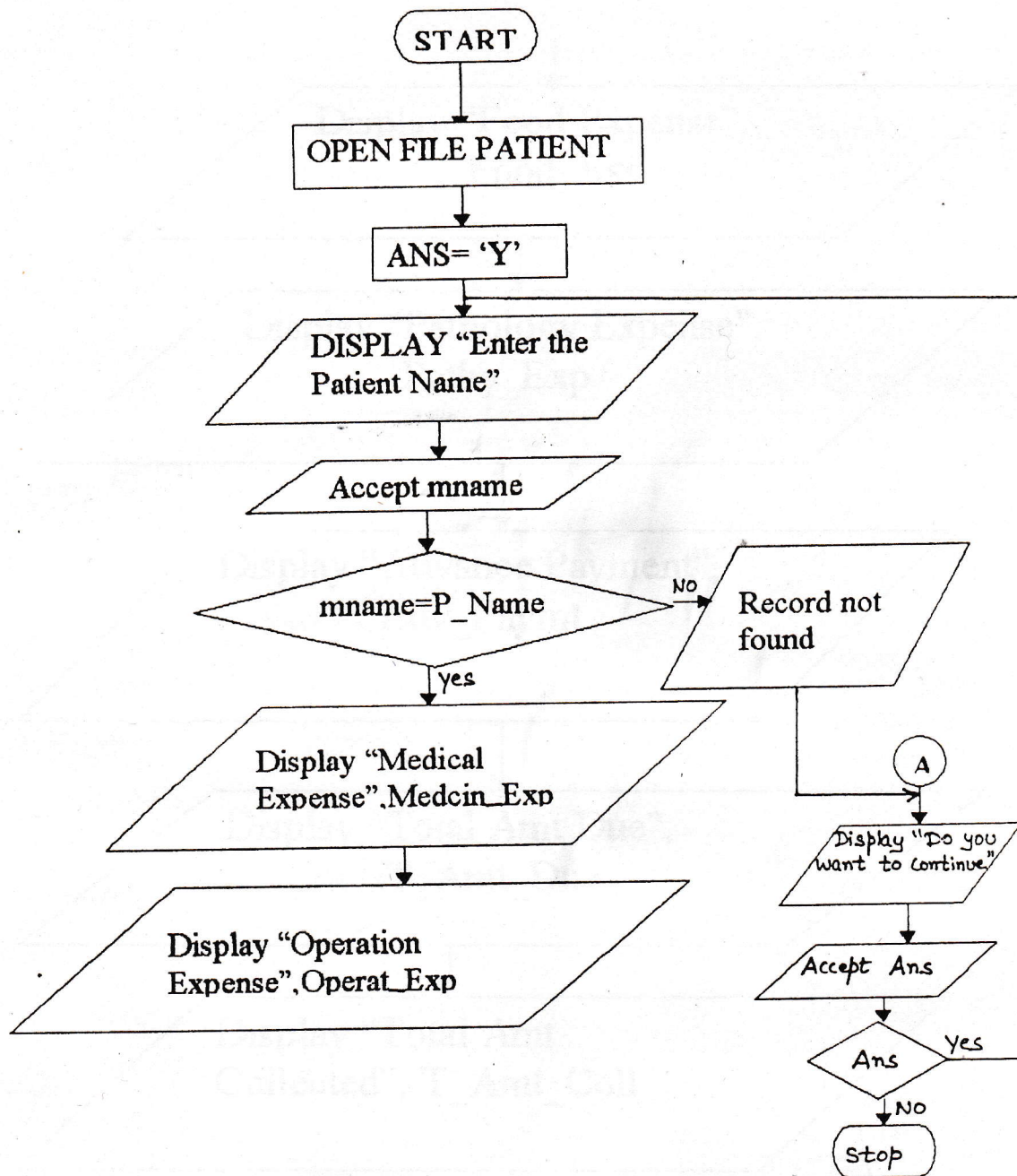


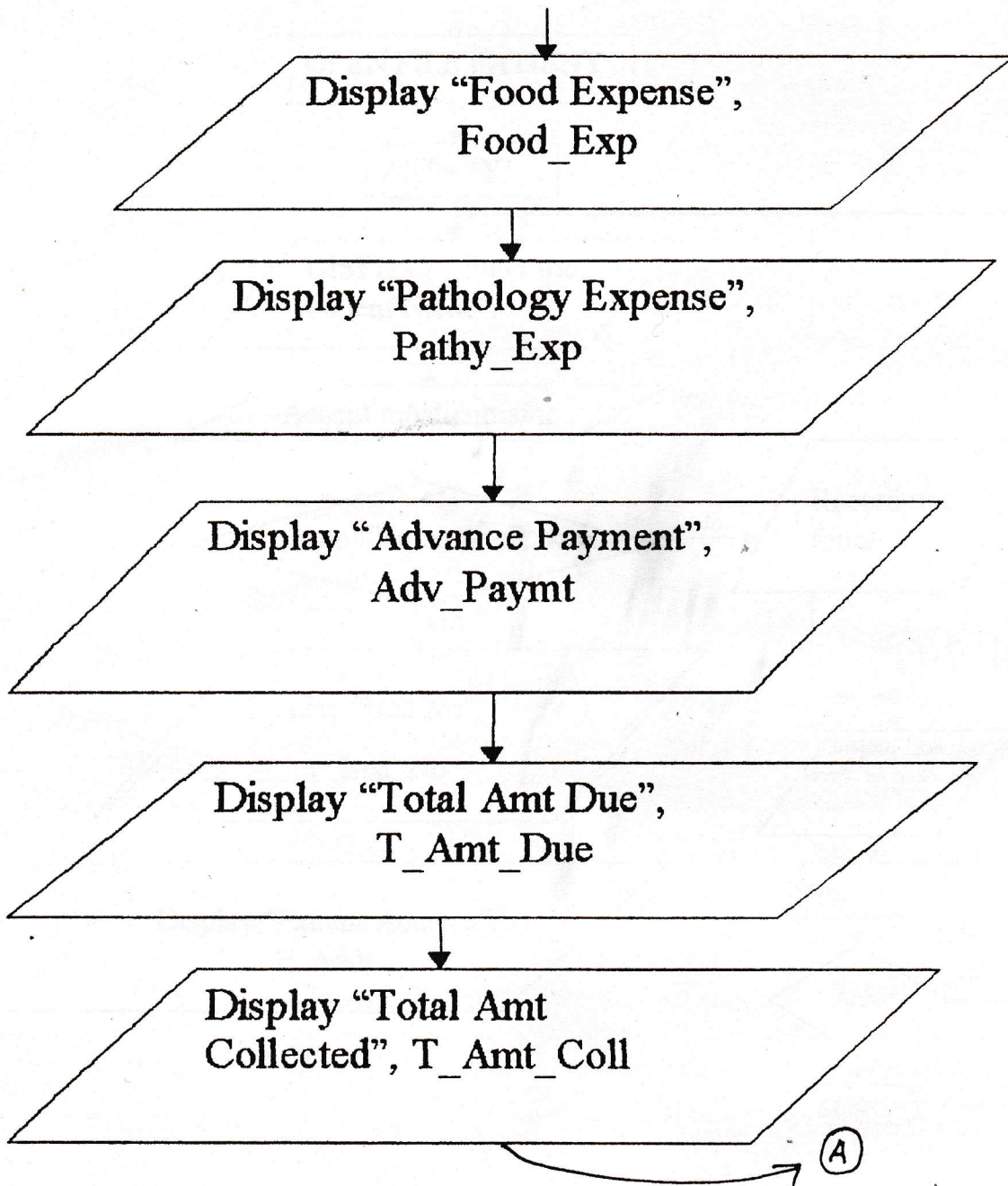


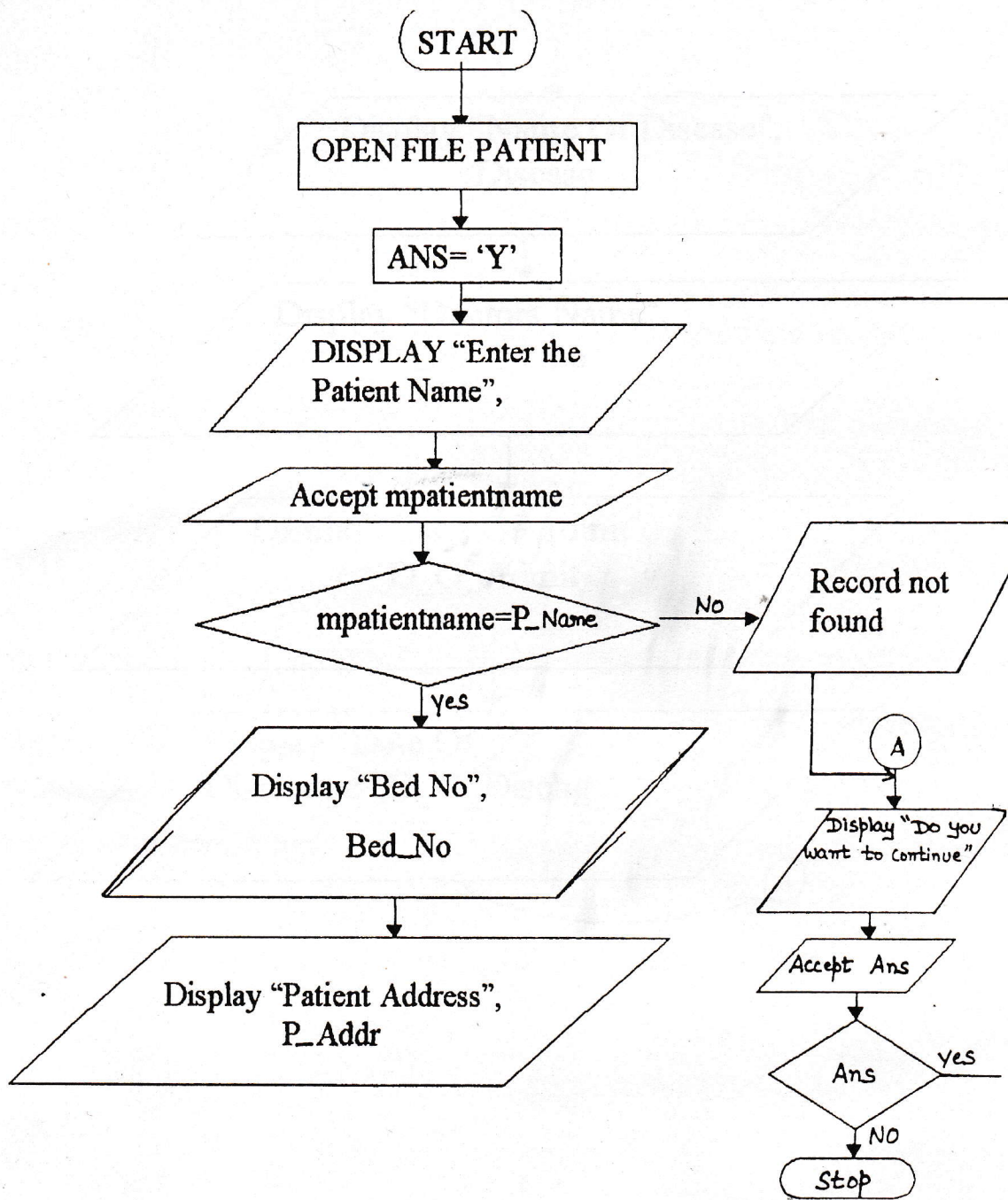


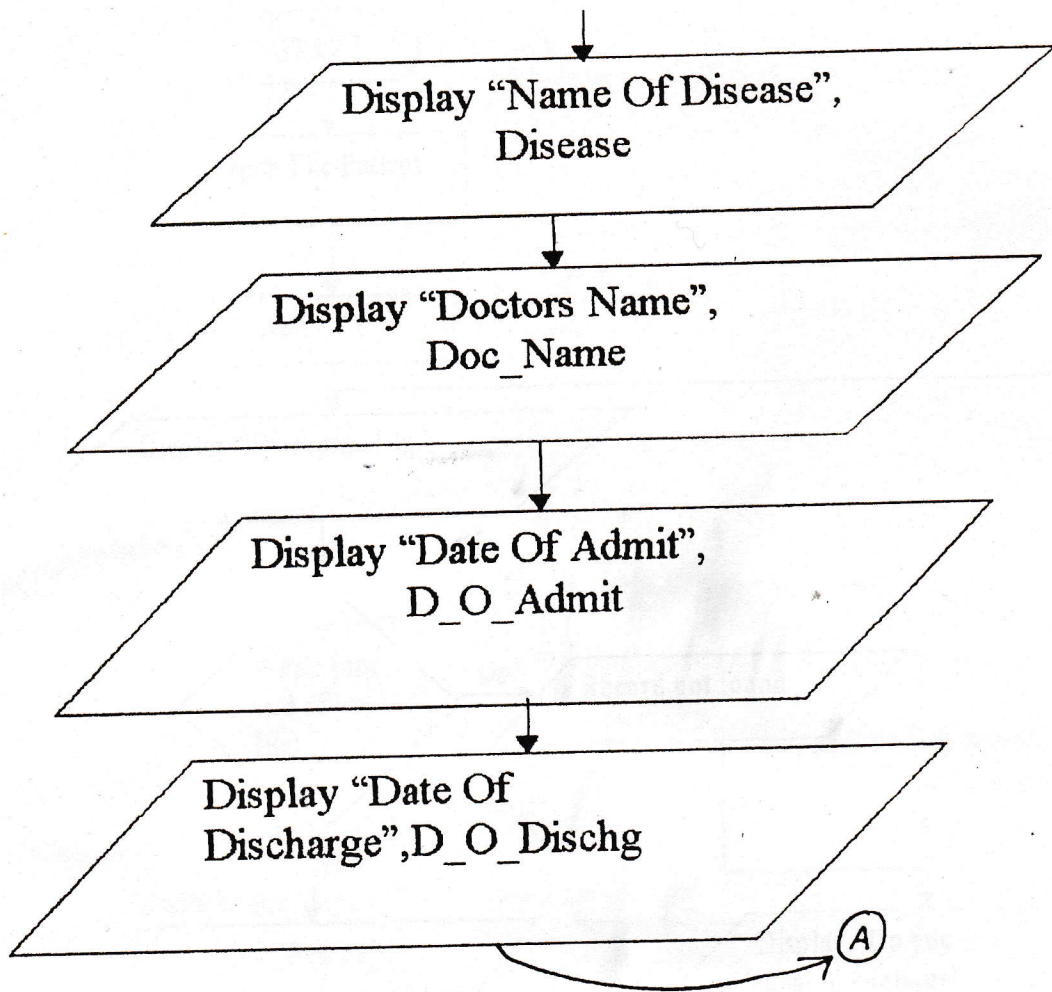


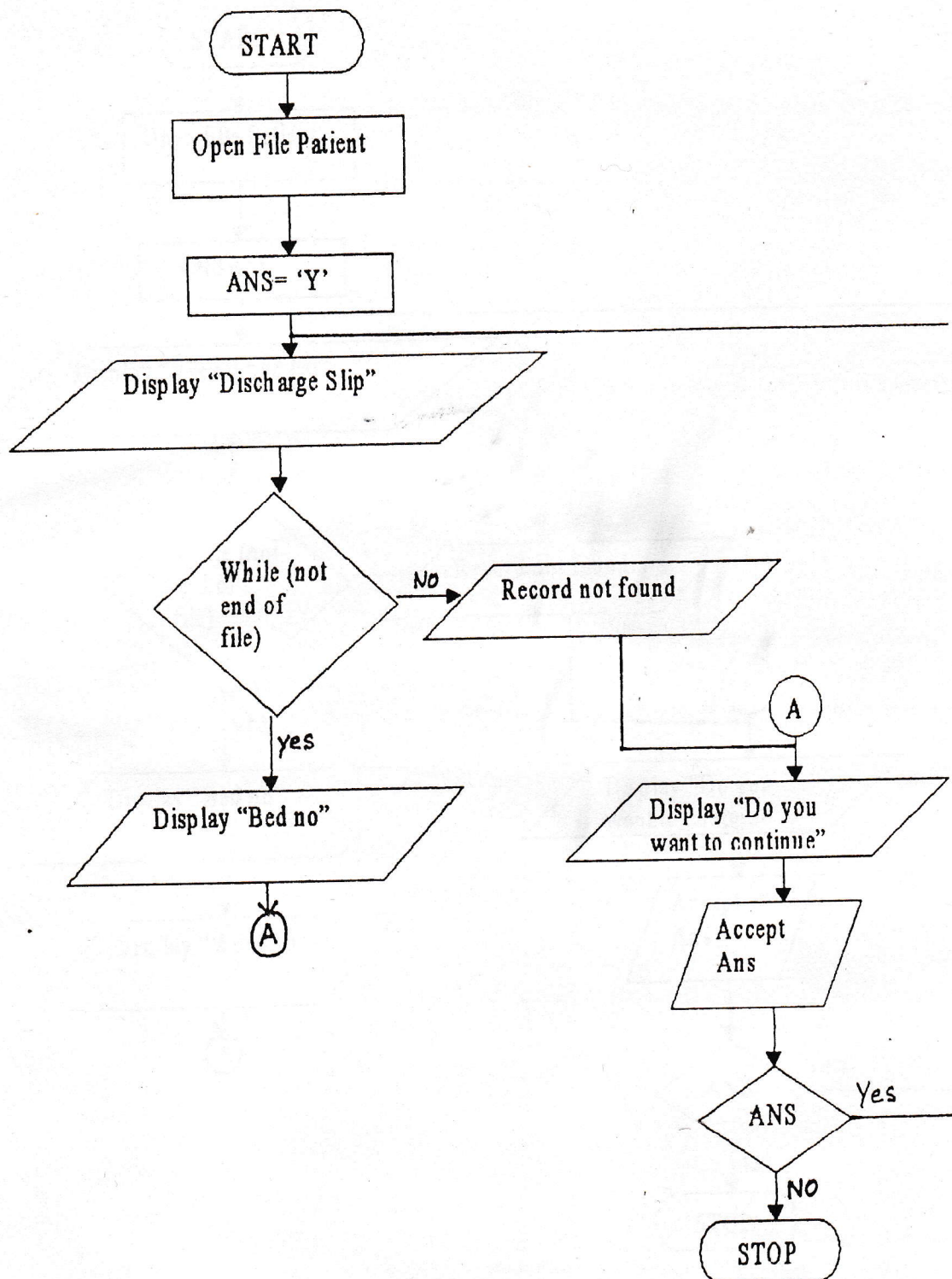


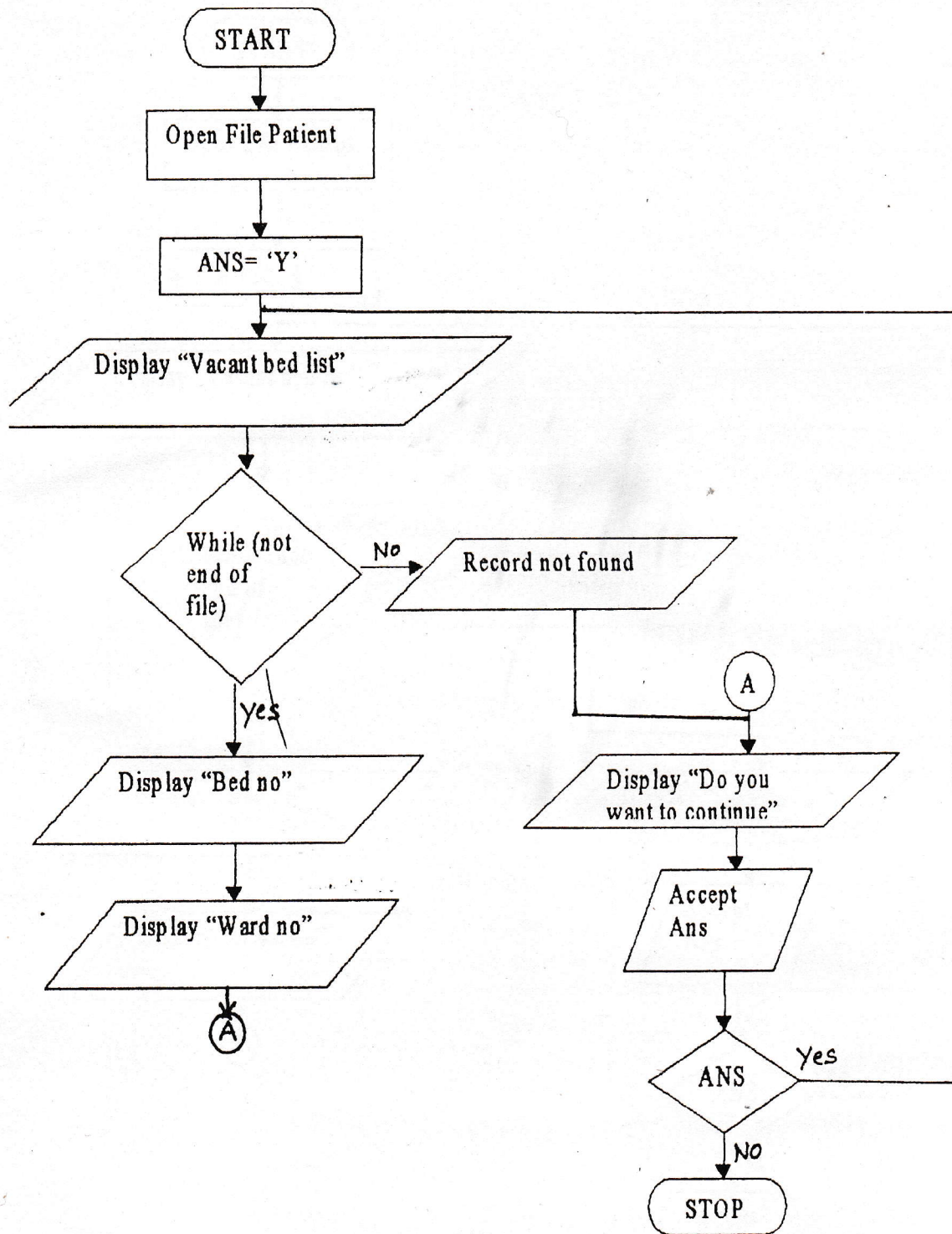


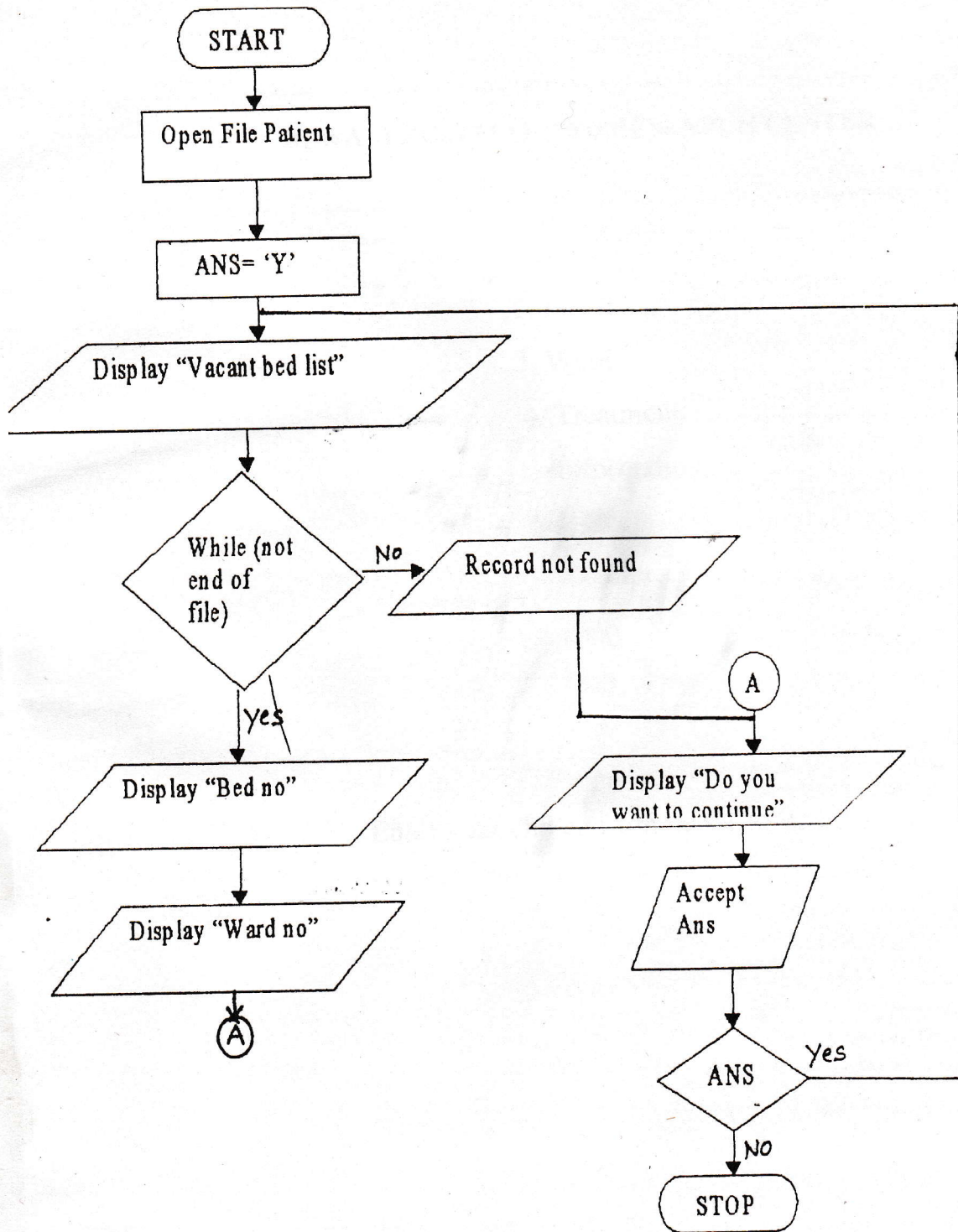












DEWANI HOSPITAL AND RESEARCH CENTER

1. Patient
2. Doctor.
3. Ward .
4. Treatment.
5. Information.
6. Bill.
7. Receipt.
8. Help.
9. Quit.

Enter your choice from no's 1 to 9. :

DEWANI HOSPITAL & RESEARCH CENTRE .

PATIENT'S ENTRY .

Registration No. : 2 Admission Date : 25/9/2000
Patient's Name : RUPESH
F/H Name : NARESH
Sex (F/M) : M Age :30
Address : REST HOUSE
Disease : EYE
Doctor's Code : 1
Doctor's Name : NARESH
Specialist : EYE
Ward Type. : 4 Bed No. : 6
Deposit Amount : Rs.200

Do You Want To Continue (y/n)? N

DEWANI HOSPITAL & RESEARCH CENTRE.

DOCTOR'S INFORMATION.

Date	:	25/9/2000
Doctor's Code	:	1
Doctor's Name	:	NARESH
Age	:	40
Address	:	T. T. Nagar, Bhopal - 462 003
Specialist	:	EYE

DEWANI HOSPITAL & RESEARCH CENTRE .

PATIENT'S BILL .

Bill No. : 2

Registration No. : 2 Date : 25/9/2000

Patient's Name : RUPESH

Ward Type : 4

Bed No. : 6 Total No. Of Days : 2

Particulars Charges

Ward Charges : Rs. 100

Doctor Fees : Rs. 450

Other Charges : Rs. 100

Total : Rs. 650

Deposit : Rs. 200

Net Amount To Pay : Rs. 450

DEWANI HOSPITAL & RESEARCH CENTER

E-7 HIG-454, Arera Colony Bhopal-462016.

Reg_no. : 2

Date : 25/9/2000

Received with thanks from RUPESH concessional the sum of Rupees 250 only by cash payment . Rs. 250

Cheques are subject to Realization.

For Dewani Hospital & Research Centre.

THANKS FOR USING
THIS SOFTWARE

