Institute of Computer Technology

B. Tech. Computer Science and Engineering

Sub : ESFP – I (2CSE102)

Project - 8

Objectives: An (Hospital MS) Hospital management system takes following input.

1) Patient'sName
2) Age
3) Doctor's Name
4) Room Type
5) Room Number
6) Disease diagnosed
7) Case Type
8) No of person with patient
9) Contact Number
10) Address
11) Discount Offered

- Based on above inputs it will display the total bill along with following condition.

· If the customer's age is above 60, then senior citizen discount of 20% is offered on total billed amount.

· 10 % discount is offered in case of burnt cases.

· 5 % discount is offered to customer's if the total bill exceeds 10000/-

· 2 % extra discount is offered on recommendations by specific doctor.

· If, the case type is an emergency case, then visiting charges are not counted.

· **ICU is allotted as room type for serious case type.**

Output :

Patient's Name	Contact Number	Doctor's Name	Address	Age	Case Type

No of person with patient	Disease diagnosed	Room Type	Discou nt offered	Total Bill to be payed	

Algorithm :

step 1: Start
step 2: Declare variables patient_name[15],special_doctor[15],normal_doctor[15],doctor_name[15],non_emergency_diagnosis[15],emergency_diagnosis[15],diseases_diagnosed[15],

address[515],icu_room[15],normal_room[15],room_type[15],burnt_case[15],normal_case[15],case_type[15],contact_number[15],age,room_number,no_p_patient,total_bill=10000,
visiting_charge=2000,a,b,c,d,e,f,g,h.
step 3: Input-patients name.
step 4: Input-Age.

step 5: if age is between 0-60 then no discount is offered else 20% discount is offered on total bill .

step 6 : if there is specific doctor then 2% discount provided on total bill else no discount and input doctor name.

step 7 if there is emergency then ICU room is alocated with extra charge of 2000 on total bill and input room type.

step 8: Input Room number.

step 9: if there us emergency then visiting charges are not taken else taken and input diseases diagnosed.

step 10: if there is burnt case then 10% discount is provided to total bill else no discount inputcase type.

step 11: Input number of persons with patient.

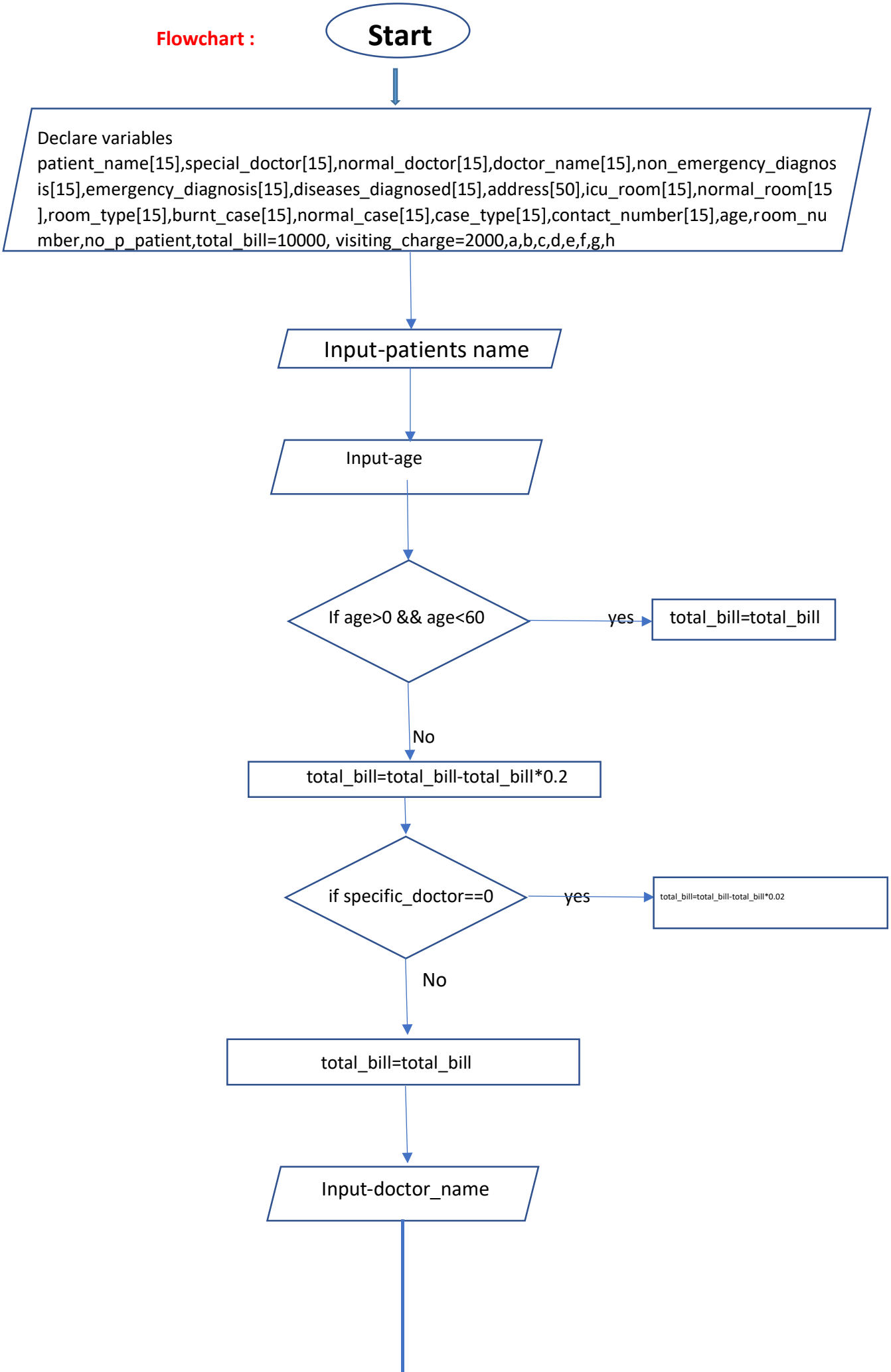
step 12: Input contact number.

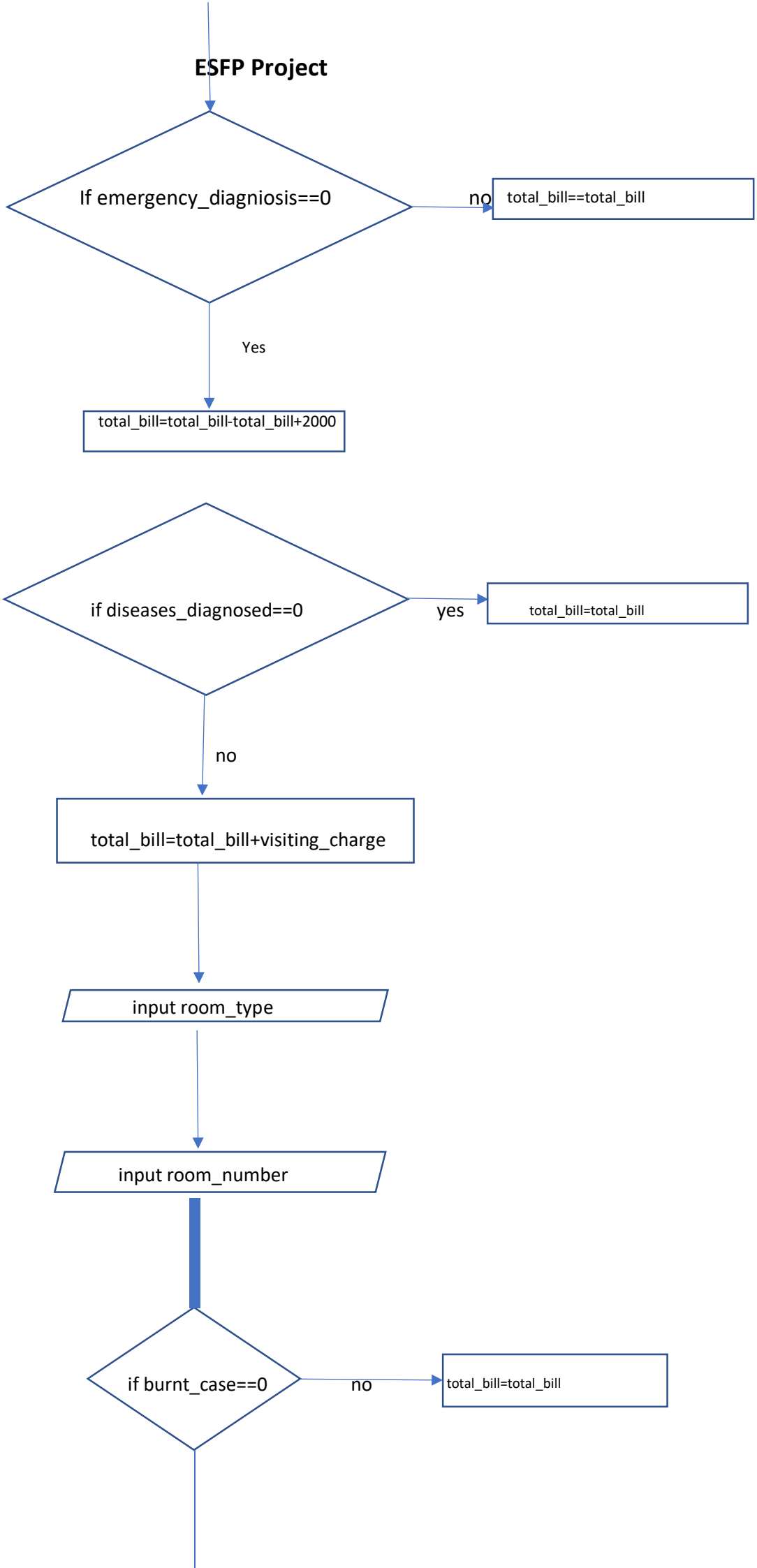
step 13: Input address

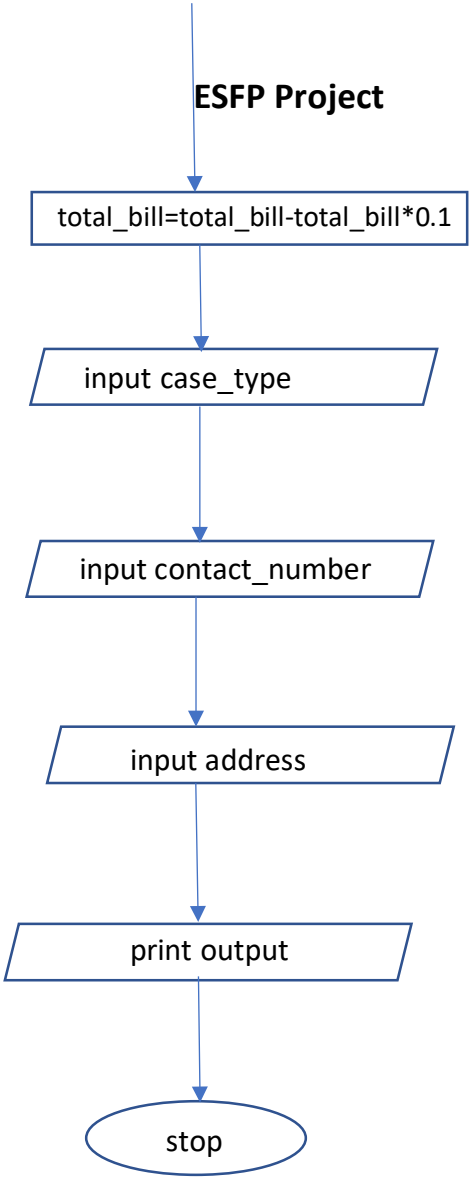
step 14: print output.

step 15: stop.

Flowchart :


Start
Declare variables patient_name[15],special_doctor[15],normal_doctor[15],doctor_name[15],non_emergency_diagnosis[15],emergency_diagnosis[15],diseases_diagnosed[15],address[50],icu_room[15],normal_room[15],room_type[15],burnt_case[15],normal_case[15],case_type[15],contact_number[15],age,room_number,no_p_patient,total_bill=10000, visiting_charge=2000,a,b,c,d,e,f,g,h
Input-patients name
Input-age
If age>0 && age<60
yes
total_bill=total_bill
No
total_bill=total_bill-total_bill*0.2
if specific_doctor==0
yes
total_bill=total_bill-total_bill*0.02
No
total_bill=total_bill
Input-doctor_name


If emergency_diagniosis==0
no
total_bill==total_bill
Yes
total_bill=total_bill-total_bill+2000
if diseases_diagnosed==0
yes
total_bill=total_bill
no
total_bill=total_bill+visiting_charge
input room_type
input room_number
if burnt_case==0
no
total_bill=total_bill



Code :

```
#include<stdio.h>
#include<string.h>
struct hospital{
  char
patient_name[15],special_doctor[15],normal_doctor[15],doctor_name[15],non_emergency_diagn
osis[15],emergency_diagnosis[15],diseases_diagnosed[15],address[515],icu_room[15],normal_roo
m[15],room_type[15],burnt_case[15],normal_case[15],case_type[15],contact_number[15];
  int age,room_number,no_p_patient;
}detail;
int main()
{
  int total_bill=10000,visiting_charge=2000;
  int a,b,c,d,e,f,g,h;
  struct hospital detail;
  printf("1) Patients Name:");
  scanf("%s",&detail.patient_name);
```

```
printf("2) Age:");
scanf("%d",&detail.age);
if(detail.age<60 && detail.age>0)
{
 total_bill=total_bill;
}
else
{
 total_bill=total_bill-total_bill*0.2;
}
printf("3) Specific Doctor(Yes Or No):");
scanf("%s",&detail.special_doctor);
a = strcmp(&detail.special_doctor,"yes");
if(a==0){
 printf("Doctor Name :");
 scanf("%s",&detail.doctor_name);
 total_bill=total_bill-total_bill*0.02;
 }
 printf("Normal Doctor(yes Or no):");
 scanf("%s",&detail.normal_doctor);
 e = strcmp(&detail.normal_doctor,"yes");
 if(e==0){
  printf("Doctor Name :");
  scanf("%s",&detail.doctor_name);
  total_bill=total_bill;
  }
printf("4) ICU room(yes Or no):");
scanf("%s",&detail.icu_room);
b = strcmp(&detail.icu_room,"yes");
if(b==0){
 printf("Room Type(ICU):");
 scanf("%s",&detail.room_type);
 total_bill=total_bill+2000;
 }
 printf(" Normal room(yes Or no):");
 scanf("%s",&detail.normal_room);
 f = strcmp(&detail.normal_room,"yes");
 if(f==0){
  printf("Room Type(Normal):");
  scanf("%s",&detail.room_type);
  total_bill=total_bill;
  }
printf("5) Room Number:");
```

```
scanf("%d",&detail.room_number);
printf("6) Emergency Diagnosis(yes Or no):");
scanf("%s",&detail.emergency_diagnosis);
c = strcmp(&detail.emergency_diagnosis,"yes");
if(c==0){
 printf("Diseases Diagnosed:");
 scanf("%s",&detail.diseases_diagnosed);
 total_bill=total_bill;
 }
 printf("Non Emergency Diagnosis(yes Or no):");
 scanf("%s",&detail.non_emergency_diagnosis);
 g = strcmp(&detail.non_emergency_diagnosis,"yes");
 if(g==0){
  printf("Diseases Diagnosed:");
  scanf("%s",&detail.diseases_diagnosed);
  total_bill=total_bill+visiting_charge;
  }
printf("7) Burnt Case(yes Or no):");
scanf("%s",&detail.burnt_case);
d = strcmp(&detail.burnt_case,"yes");
if(d==0){
 printf("Case Type(Burnt):");
 scanf("%s",&detail.case_type);
 total_bill=total_bill-total_bill*0.1;
 }
 printf("Normal case(yes Or no):");
 scanf("%s",&detail.normal_case);
 h = strcmp(&detail.normal_case,"yes");
 if(h==0){
  printf("Case Type(Normal):");
  scanf("%s",&detail.case_type);
  total_bill=total_bill;
  }
printf("8) No Of Person With Patient:");
scanf("%d",&detail.no_p_patient);
printf("9) Contact Number:");
scanf("%s",&detail.contact_number);
printf("10) Address:");
scanf("%s",&detail.address);
```

```
 printf("----------------------------------------Output(BILL)----------------------------------------
\n");

 printf("Patients\tContact\t\tDoctor\t\tAddress\t\tAge\tCase\n");
 printf("Name\t\tNumber\t\tName\t\t\t\t\tType");
 printf("\n%s",detail.patient_name);
 printf("\t\t%d",detail.contact_number);
 printf("\t%s",detail.doctor_name);
 printf("\t\t%s",detail.address);
 printf("\t%d",detail.age);
 printf("\t%s\n\n",detail.case_type);
 printf("No. Of person\tDiseases\tRoom Type\tTotal Bill To\n");
 printf("with patient\tDiagnosed\t\t\tbe payed\n");
 printf("\n%d",detail.no_p_patient);
 printf("\t\t%s",detail.diseases_diagnosed);
 printf("\t\t%s",detail.room_type);
 printf("\t\t%d",total_bill);
}
```

Output :

```
1) Patients Name:riya
2) Age:12
3) Specific Doctor(Yes Or No):yes
Doctor Name :Dr.himanshu
Normal Doctor(yes Or no):no
4) ICU room(yes Or no):yes
Room Type(ICU):ICU
 Normal room(yes Or no):no
5) Room Number:123
6) Emergency Diagnosis(yes Or no):no
Non Emergency Diagnosis(yes Or no):yes
Diseases Diagnosed:fever
7) Burnt Case(yes Or no):no
Normal case(yes Or no):yes
Case Type(Normal):normal
8) No Of Person With Patient:2
9) Contact Number:9874678
10) Address:Ahemdabad
----------------------------------------Output(BILL)----------------------------------
Patients        Contact         Doctor          Address         Age     Case
Name            Number          Name                                    Type
riya            9874678 Dr.himanshu             Ahemdabad       12      normal

No. Of person   Diseases        Room Type       Total Bill To
with patient    Diagnosed                       be payed

2               fever           ICU             13799
```