#include<stdio.h>

#include<stdlib.h>

#include<string.h>

struct node

{

char room\_num[10];

char name[30];

char phone\_number[15];

char national\_id[20];

char day[10];

int bill;

struct node \*next;

}\*head = NULL;

int total\_room\_As = 5;

int total\_room\_Ad = 5;

int total\_room\_Av = 5;

int total\_room\_Af =5;

int total\_room\_A = 20;

int total\_room\_N\_A = 20;

int total\_room\_NAs = 5;

int total\_room\_NAd = 5;

int total\_room\_NAv = 5;

int total\_room\_NAf =5;

int total\_room = 40;

void book\_room()

{

FILE \*fp, \*f;

int i, a, b, temp, choice, num, room\_num;

char room[]=".txt";

struct node \*new\_node, \*current;

while(1)

{

system("pause");

system("cls");

new\_node = (struct node\*)malloc(sizeof(struct node));

new\_node->next = NULL;

printf("Enter your choice what you want to do:\n\n");

printf("1 for searching empty room and see the room types\n");

printf("2 for room booking\n");

printf("3 for searching customer details\n");

printf("4 for food service\n");

printf("5 for billing system\n");

printf("6 for check out\n");

printf("7 for exit the system\n");

printf("\nEnter : ");

scanf("%d", &choice);

if (choice==2)

{

printf("Here is our room types: \n");

room\_type();

room\_information();

printf("Enter the room no : ");

scanf(" %[^\n]", new\_node->room\_num);

strcat(new\_node->room\_num, room);

f = fopen(new\_node->room\_num, "r");

if(f!= NULL)

{

printf("Sorry! This room is already booked!!\n\n");

}

else

{

fp = fopen(new\_node->room\_num, "w");

printf("Confirm your room number: ");

scanf("%d", &room\_num);

printf("Enter your name : ");

getchar();

fprintf(fp, "Name : ");

fprintf(fp, gets(new\_node->name));

fprintf(fp, "\n");

fprintf(fp, "Mobile : ");

printf("Enter your mobile no : ");

fprintf(fp, gets(new\_node->phone\_number));

fprintf(fp, "\n");

fprintf(fp, "National Id : ");

printf("Enter national id no : ");

fprintf(fp, gets(new\_node->national\_id));

fprintf(fp, "\n");

printf("How many days you want to stay here : ");

fprintf(fp, "Day : ");

fprintf(fp, gets(new\_node->day));

fprintf(fp, "\n");

fclose(fp);

if(head == NULL)

{

head = new\_node;

current = new\_node;

}

else

{

current->next = new\_node;

current = new\_node;

}

printf("\nThanks for staying us, Your room is booked successfully :-)\n");

}

}

else if (choice==1)

{

empty\_room();

room\_type();

}

else if (choice==3)

{

information();

}

else if (choice==4)

{

food\_service();

}

else if (choice==5)

{

billing();

}

else if (choice==6)

{

check\_out();

}

else if (choice==7)

{

break;

}

else

{

printf("Wrong choice. Please insert a correct value\n\n\n");

}

}

}

void empty\_room()

{

int n,m;

printf("\nChoose Your Room Type\n\n1 For AC\n2 For Non AC\n");

printf("\nEnter: ");

scanf("%d",&n);

if(n==1)

{

printf("\n\nWe Have %d Single AC Room left\n",total\_room\_As);

printf("We Have %d Double AC Room left\n",total\_room\_Ad);

printf("We Have %d Family AC Room left\n", total\_room\_Af);

printf("We Have %d VIP AC Room left\n",total\_room\_Av);

}

else if(n==2)

{

printf("\n\nWe Have %d Single NON AC Room left\n",total\_room\_NAs);

printf("We Have %d Double NON AC Room left\n",total\_room\_NAd);

printf("We Have %d Family NON AC Room left\n", total\_room\_NAf);

printf("We Have %d VIP NON AC Room left\n",total\_room\_NAv);

}

else

{

printf("Wrong choice! Try again.\n");

empty\_room();

}

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

}

void room\_type()

{

printf("\nRoom type Feature Cost per day\n\

---------- ------- -------------\n\

Single room Non-AC , 1 Bed 500 TK\n\

Single room AC, 1 Bed 800 TK\n\

Double room Non-AC , 2 Bed 1000 TK\n\

Double room AC, 2 Bed 1500 TK\n\

Family room Non-AC, 3 Bed, TV 2000 TK\n\

Family room AC, 3 Bed, TV 2500 TK\n\

VIP room AC, 1 Bed, TV, Internet 3000 TK\n\n\n\

");

system("pause");

system("cls");

}

void room\_information()

{

if (total\_room==0)

{

printf("Sorry! your all is already booked. There have no more empty room.\n\n");

book\_room();

}

total\_room--;

int n,m;

printf("\nChoose Your Room Type\n\n1 For AC\n2 For Non AC\n");

printf("\nEnter: ");

scanf("%d",&n);

if(n==1)

{

if (total\_room\_A==0)

{

printf("Sorry! your all AC is already booked. There have no more empty room.\n\n");

book\_room();

}

total\_room\_A--;

printf("\nChoose Your Room Capasity\n\n1 For Single\n2 For Double\n3 For VIP\n4 For Family\n");

printf("\nEnter: ");

scanf("%d",&m);

if(m==1)

{

if (total\_room\_As==0)

{

printf("Sorry! your all this types of room is already booked. There have no more empty room.\n\n");

book\_room();

}

total\_room\_As--;

}

else if(m==2)

{

if (total\_room\_Ad==0)

{

printf("Sorry! your all this types of room is already booked. There have no more empty room.\n\n");

book\_room();

}

total\_room\_Ad--;

}

else if(m==3)

{

if (total\_room\_Av)

{

printf("Sorry! your all this types of room is already booked. There have no more empty room.\n\n");

book\_room();

}

total\_room\_Av--;

}

else if (n==4)

{

if (total\_room\_Af==0)

{

printf("Sorry! your all this types of room is already booked. There have no more empty room.\n\n");

book\_room();

}

total\_room\_Af--;

}

else

{

printf("Wrong choice! Try again.\n");

room\_information();

}

}

else if(n==2)

{

if (total\_room\_N\_A==0)

{

printf("Sorry! your all Non AC room is already booked. There have no more empty room.\n\n");

book\_room();

}

total\_room\_N\_A--;

printf("\nChoose Your Room Capasity\n\n1 For Single\n2 For Double\n3 For VIP\n4 For Family\n");

printf("\nEnter: ");

scanf("%d",&m);

if(m==1)

{

if (total\_room\_NAs==0)

{

printf("Sorry! your all this types of room is already booked. There have no more empty room.\n\n");

book\_room();

}

total\_room\_NAs--;

}

else if(m==2)

{

if (total\_room\_NAd==0)

{

printf("Sorry! your all this types of room is already booked. There have no more empty room.\n\n");

book\_room();

}

total\_room\_NAd--;

}

else if(m==3)

{

if (total\_room\_NAv==0)

{

printf("Sorry! your all this types of room is already booked. There have no more empty room.\n\n");

book\_room();

}

total\_room\_NAv--;

}

else if (m==4)

{

if (total\_room\_NAf==0)

{

printf("Sorry! your all this types of room is already booked. There have no more empty room.\n\n");

book\_room();

}

total\_room\_NAf--;

}

else

{

printf("Wrong choice! Try again.\n");

room\_information();

}

}

else

{

printf("Wrong choice! Try again.\n");

room\_information();

}

printf("\n");

}

void food\_service()

{

int room\_num, food\_choice, temp, sum=0;

printf("Enter the room number : ");

scanf("%d", &room\_num);

printf("\nWhat do you want!\n\n\

1 for Breakfast\n\

2 for Lunch or Dinner\n\

3 for Snacks\n\

4 for Beverage\n\nSelect: ");

scanf("%d", &food\_choice);

if (food\_choice==1)

{

printf("\n Food price\n\

------ -------\n\

1.Juice, Bread 150 TK\n\

butter and jam\n\

Coffee or Tea\n\n");

printf("2.Parata 100 TK\n\

Mixed Vegetable\n\

1 Egg\n\

Tea or coffee\n\n");

printf("3.French Toast Menu 150 TK\n");

printf("\n\nIf done, press '0'\n\nSelect those number which item you may want!\n");

while(1)

{

printf("Select: ");

scanf("%d", &temp);

if (temp==0)

{

printf("Thank You. Your Total bill is : %d TK\n\n", sum);

return sum;

sum=0;

break;

}

else

{

if (temp==1)

sum=sum+150;

else if (temp==2)

sum=sum+100;

else if (temp==3)

sum=sum+150;

else

printf("Wrong choice!\n");

}

}

}

else if (food\_choice==2)

{

printf("\n Food price\n\

------ -------\n\

1.Steamed Rice 170 TK\n\

Thick Daal\n\

Chicken\n\n\

2.Pulao Korma & Roast 150 TK\n\n\

3.Beef Tehari 120 TK\n\n\

4. Luchi/Parata & Chicken 80 TK\n\n\

");

printf("\n\nIf done, press '0'\n\nSelect those number which item you may want!\n");

while(1)

{

printf("Select: ");

scanf("%d", &temp);

if (temp==0)

{

printf("Thank You. Your Total bill is : %d TK\n\n", sum);

return sum;

sum=0;

break;

}

else

{

if (temp==1)

sum=sum+170;

else if (temp==2)

sum=sum+150;

else if (temp==3)

sum=sum+120;

else if (temp==4)

sum=sum+80;

else

printf("Wrong choice!\n");

}

}

}

else if (food\_choice==3)

{

printf("\n Food price\n\

------ -------\n\

1.Noodles 80 TK\n\

2.Beef Samosa 2 Pcs 30 TK\n\

3.Spring roll 2 Pcs 70 TK\n\

4.Vegetable Singara 2 Pcs 30 TK\n\

5.Kabab Roll 60 TK\n\

");

printf("\n\nIf done, press '0'\n\nSelect those number which item you may want!\n");

while(1)

{

printf("Select: ");

scanf("%d", &temp);

if (temp==0)

{

printf("Thank You. Your Total bill is : %d TK\n\n", sum);

return sum;

sum=0;

break;

}

else

{

if (temp==1)

sum=sum+80;

else if (temp==2)

sum=sum+30;

else if (temp==3)

sum=sum+70;

else if (temp==4)

sum=sum+30;

else if (temp==5)

sum=sum+60;

else

printf("Wrong choice!\n");

}

}

}

else if (food\_choice==4)

{

printf("\n Food price\n\

------ -------\n\

1.Tea 15 TK\n\

2.Coffee 70 TK\n\

3.Soft Drinks 30 TK\n\

4.Bottled Mineral Water 20 TK\n\

");

printf("\n\nIf done, press '0'\n\nSelect those number which item you may want!\n");

while(1)

{

printf("Select: ");

scanf("%d", &temp);

if (temp==0)

{

printf("Thank You. Your Total bill is : %d TK\n\n", sum);

return sum;

sum=0;

break;

}

else

{

if (temp==1)

sum=sum+15;

else if (temp==2)

sum=sum+70;

else if (temp==3)

sum=sum+30;

else if (temp==4)

sum=sum+20;

else

printf("Wrong choice!\n");

}

}

}

else

{

printf("Wrong choice! please enter a correct choice.\n");

}

}

void billing()

{

struct node \*c;

c=head;

char r\_n[100];

int rs,f,t=0;

printf("Enter your room number: ");

scanf("%s", r\_n);

printf("Enter total bill of room service:");

scanf("%d",&rs);

t+=rs;

printf("Enter total bill of food:");

scanf("%d",&f);

t+=f;

while(c!=NULL)

{

if(strcmp(r\_n,c->room\_num)==0)

{

c->bill=t;

break;

}

else

{

c=c->next;

}

}

printf("Total Bill is: %d\n",t);

}

void check\_out()

{

struct node \*c,\*t1,\*t2;

char rn[100];

t1=head;

c=t1->next;

t2=c->next;

printf("Enter Room Number:");

scanf("%s",rn);

while(c!=NULL)

{

if(strcmp(rn,c->room\_num)==0)

{

break;

}

else

{

t1=t1->next;

c=c->next;

t2=t2->next;

}

}

if(c->next=NULL)

{

t1->next=NULL;

}

else

{

t1->next=t2;

}

printf("Check Out is successful");

}

void information()

{

FILE \*fp;

struct node \*current;

char ch, name[20], ex[5] = ".txt";

system("cls");

current = head;

printf("Enter the room number : ");

scanf(" %[^\n]", name);

strcat(name,ex);

fp = fopen(name,"r");

if(fp==NULL)

{

printf("Sorry! This room is free. There have no any person.\n");

return EXIT\_FAILURE;

}

else

{

printf("\n");

while(1)

{

ch = fgetc(fp);

if(ch==EOF)

{

break;

}

putchar(ch);

}

fclose(fp);

printf("\n");

}

printf("\n");

}

int main()

{

printf(" Our Hotel Management System\n\

<--------------------------->\n\n\n\

Book your room in here, stay with us and get the best services.\n\n\n");

book\_room();

return 0;

}