**Assignment No.6(Cinemax implementation).**

#include <iostream>

using namespace std;

typedef struct book{

int seatno;

struct book \*next,\*prev;

};

book \*create(book \*h){

book \*head,\*p,\*q;

int seat,bookings;

cout<<endl<<"Enter number of bookings do you want to create:";

cin>>bookings;

head=h;

head=new book;

cout<<endl<<"Enter seat number:";

cin>>seat;

head->seatno=seat;

head->next=NULL;

head->prev=NULL;

q=p=head;

for(int i=0;i<bookings-1;i++){

p->next=new book;

cout<<endl<<"Enter seat number:";

cin>>seat;

p=p->next;

p->seatno=seat;

p->next=NULL;

p->prev=q;

q=p;}

return head;

}

book \*cancel(book \*h){

book \*head,\*p,\*q;

int loc;

cout<<endl<<"Enter seat in a row:";

cin>>loc;

head=p=q=h;

if(loc==1){

book \*s=head;

head=head->next;

delete s;

head->prev=NULL;

return head;}

else{

for(int i=0;i<loc-1;i++){

q=q->next;}

p=q->next;

q->next=p->next;

(p->next)->prev=q;

return head;}

}

void display(book \*h){

cout<<endl<<"seat numbers:";

int cnt=0;

while(h!=NULL){

cout<<h->seatno<<"\t";

h=h->next;

cnt++;}

cout<<endl<<"Number of vacent seats in a Row:"<<(7-cnt);

}

int main(){

struct book \*head[10],\*h;

int row,ch;

do{

cout<<endl<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*CINEMAX TICKET BOOKING SYSTEM\*\*\*\*\*\*\*\*\*\*\*\*";

cout<<endl<<"1.Create Bookings database...\n2.Display bookings.....\n3.display list after cancellation..\n4.Exit...";

cout<<endl<<"Enter your choice:";

cin>>ch;

switch(ch){

case 1:

cout<<endl<<"Create bookings:";

for(int i=0;i<10;i++){

cout<<endl<<"for Row No:"<<i<<endl;

h=head[i];

h=create(h);

head[i]=h;}

break;

case 2:

for(int i=0;i<10;i++){

cout<<endl<<"Row number "<<i;

h=head[i];

display(h);}

break;

case 3:

cout<<"Enter Row number:";

cin>>row;

h=head[row];

h=cancel(h);

head[row]=h;

break;

case 4:

break;

default:

cout<<endl<<"Worng choice:";

}

}while(ch!=4);

return 0;

}