Group C-19:--- Kaustubh Shrikant Kabra SE COMP-1 20

Program:---

#include<iostream>

using namespace std;

struct node

{

int seatc,seatr;

string status;

struct node \*next ,\*prev;

}\*head[10],\*last[10];

class ticket

{

public:

ticket()

{

for(int i=1 ; i<=10 ; i++)

{

head[i]=last[i]=NULL;

struct node\* temp;

for(int j=1 ; j<=7 ; j++)

{

temp=create\_node(i,j);

if(head[i]==last[i] && head[i]==NULL)

{

head[i]=last[i]=temp;

head[i]->next=last[i]->next=NULL;

head[i]->prev=last[i]->prev=NULL;

}

else //Insertion at beginning

{

temp->next=head[i];

head[i]->prev=temp;

head[i]=temp;

head[i]->prev=last[i];

last[i]->next=head[i];

}

}

}

}

node\* create\_node(int x,int y)

{

struct node\*temp;

temp=new(struct node);

if(temp==NULL)

{

cout<<"\nMemory not allocated";

return 0;

}

else

{

temp->seatr=x;

temp->seatc=y;

temp->status="A";

temp->next=NULL;

temp->prev=NULL;

return temp;

}

}

void book()

{

int x,y;

cout<<"\nEnter row and column";

cin>>x>>y;

struct node\* temp;

temp=head[x];

for(int i=1 ; i<=7 ; i++)

{

if(temp->seatc==y)

{

if(temp->status=="A")

{

temp->status="B";

}

else

{

cout<<"\nSORRY !! Already booked!!";

}

}

temp=temp->next;

}

display();

}

void cancel(){

int x,y;

cout<<"\nEnter row and column to cancel booking : ";

cin>>x>>y;

struct node\* temp;

temp=head[x];

for(int i=1 ; i<=7 ; i++)

{

if(temp->seatc==y)

{

if(temp->status=="B")

{

temp->status="A"

}

else

{

cout<<"\nSORRY !! Already unbooked!!";

}

}

temp=temp->next;

}

display();

}

void display()

{

struct node\* temp;

for(int j=1 ; j<=10 ; j++)

{

temp=head[j];

for(int i=1 ; i<=7 ; i++)

{

cout<<temp->seatr<<","<<temp->seatc<<temp->status<<"\t";

temp=temp->next;

}

cout<<"\n";

}

}

};

int main()

{

ticket t;

int ch;

t.display();

do{

cout<<"\n1.Book Ticket \n2.Cancel Booking \n3.EXIT";

cout<<"\n Enter Your Choice:";

cin>>ch;

switch(ch)

{

case 1:t.book();break;

case 2:t.cancel();break;

}

}while(ch!=3);

return 0;

}

Output:---

1,7A 1,6A 1,5A 1,4A 1,3A 1,2A 1,1A

2,7A 2,6A 2,5A 2,4A 2,3A 2,2A 2,1A

3,7A 3,6A 3,5A 3,4A 3,3A 3,2A 3,1A

4,7A 4,6A 4,5A 4,4A 4,3A 4,2A 4,1A

5,7A 5,6A 5,5A 5,4A 5,3A 5,2A 5,1A

6,7A 6,6A 6,5A 6,4A 6,3A 6,2A 6,1A

7,7A 7,6A 7,5A 7,4A 7,3A 7,2A 7,1A

8,7A 8,6A 8,5A 8,4A 8,3A 8,2A 8,1A

9,7A 9,6A 9,5A 9,4A 9,3A 9,2A 9,1A

10,7A 10,6A 10,5A 10,4A 10,3A 10,2A 10,1A

1.Book Ticket

2.Cancel Booking

3.EXIT

Enter Your Choice:--1

Enter row and column:--5

4

1,7A 1,6A 1,5A 1,4A 1,3A 1,2A 1,1A

2,7A 2,6A 2,5A 2,4A 2,3A 2,2A 2,1A

3,7A 3,6A 3,5A 3,4A 3,3A 3,2A 3,1A

4,7A 4,6A 4,5A 4,4A 4,3A 4,2A 4,1A

5,7A 5,6A 5,5A 5,4B 5,3A 5,2A 5,1A

6,7A 6,6A 6,5A 6,4A 6,3A 6,2A 6,1A

7,7A 7,6A 7,5A 7,4A 7,3A 7,2A 7,1A

8,7A 8,6A 8,5A 8,4A 8,3A 8,2A 8,1A

9,7A 9,6A 9,5A 9,4A 9,3A 9,2A 9,1A

10,7A 10,6A 10,5A 10,4A 10,3A 10,2A 10,1A

1.Book Ticket

2.Cancel Booking

3.EXIT

Enter Your Choice:--1

Enter row and column:--5

4

SORRY !! Already booked!!1,7A 1,6A 1,5A 1,4A 1,3A 1,2A 1,1A

2,7A 2,6A 2,5A 2,4A 2,3A 2,2A 2,1A

3,7A 3,6A 3,5A 3,4A 3,3A 3,2A 3,1A

4,7A 4,6A 4,5A 4,4A 4,3A 4,2A 4,1A

5,7A 5,6A 5,5A 5,4B 5,3A 5,2A 5,1A

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7,7A 7,6A 7,5A 7,4A 7,3A 7,2A 7,1A

8,7A 8,6A 8,5A 8,4A 8,3A 8,2A 8,1A

9,7A 9,6A 9,5A 9,4A 9,3A 9,2A 9,1A

10,7A 10,6A 10,5A 10,4A 10,3A 10,2A 10,1A

1.Book Ticket

2.Cancel Booking

3.EXIT

Enter Your Choice:--2

Enter row and column to cancel booking:-- 5

4

1,7A 1,6A 1,5A 1,4A 1,3A 1,2A 1,1A

2,7A 2,6A 2,5A 2,4A 2,3A 2,2A 2,1A

3,7A 3,6A 3,5A 3,4A 3,3A 3,2A 3,1A

4,7A 4,6A 4,5A 4,4A 4,3A 4,2A 4,1A

5,7A 5,6A 5,5A 5,4A 5,3A 5,2A 5,1A

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9,7A 9,6A 9,5A 9,4A 9,3A 9,2A 9,1A

10,7A 10,6A 10,5A 10,4A 10,3A 10,2A 10,1A

1.Book Ticket

2.Cancel Booking

3.EXIT

Enter Your Choice:--1

Enter row and column:--5

4

1,7A 1,6A 1,5A 1,4A 1,3A 1,2A 1,1A

2,7A 2,6A 2,5A 2,4A 2,3A 2,2A 2,1A

3,7A 3,6A 3,5A 3,4A 3,3A 3,2A 3,1A

4,7A 4,6A 4,5A 4,4A 4,3A 4,2A 4,1A

5,7A 5,6A 5,5A 5,4B 5,3A 5,2A 5,1A

6,7A 6,6A 6,5A 6,4A 6,3A 6,2A 6,1A

7,7A 7,6A 7,5A 7,4A 7,3A 7,2A 7,1A

8,7A 8,6A 8,5A 8,4A 8,3A 8,2A 8,1A

9,7A 9,6A 9,5A 9,4A 9,3A 9,2A 9,1A

10,7A 10,6A 10,5A 10,4A 10,3A 10,2A 10,1A

1.Book Ticket

2.Cancel Booking

3.EXIT

Enter Your Choice:--3