```
# include <iostream>
# include <iomanip>
# include <string>
using namespace std;

const int col=20;//You can make the seats smaller or bigger
const int row=15;//you can make the row smaller or bigger

void input1(double [][col], int  );  //Problem 1
void input2(char [][col], int );//Problem 2
void input3(char [][col],double [][col], int&);//Problem 3
void input4(char [][col],double[][col], int, double&);//Problem 4
void input5(char [][col],int);//Problem 5
void input6(char [][col],double [][col],int);//Problem 6
void input7(char [][col],double [][col],double&);//Problem 7


int main()
{
        int counter;// counts how many avaliable seats for function input 3 problem
3
        double totals=0;// counts the total profit for function input 4 problem 4
and reduce a profit for input 7 problem 7
        char yesno;//for the while loop of main
        do
        {


        double  audi[row][col];//The arrays price of the rows and collums for the
audition
        char    graphaudi[row][col];  // the arrays that display row and colums
audition
        char choice ; //choices in main

        cout<<"1 Enter Price Per Row, Defualt is 10 if press nothing \n"
                <<"2 Display Available Seats\n"
                <<"3 Purchase a Seat\n"
                <<"4 Display Total Tickets\n"
                <<"5 Display number of available seats\n"
                <<"6 Display Total Sales\n"
                <<"7 Return a Ticket\n";
                cin>>choice;


        switch(choice)
        {
                case '1':
                                input1(audi,row);
```

```
                        break;
                case '2':
                        input2(graphaudi,row);
                        break;
                case '3':
                        input3(graphaudi,audi,counter);

                        break;
                case '4':
                        input4(graphaudi,audi,row,totals);
                        break;
                case '5':
                        input5(graphaudi,row);
                        break;
                case '6':
                        input6(graphaudi,audi,row);
                        break;
                case '7':input7(graphaudi,audi,totals);
                        break;
                default: cout<< "Invalid Input\n";
        }
        cout<<"Do you want to continue? Y for YES , N for NO"<<endl;
        cin>>yesno;
}while(yesno=='y'||'Y');
cout<<"Goodbye end of program"<<endl;
return 0;
}


void  input1 (double inpaudi[][col], int frow)
{
        double total=0;
        cout<<"Enter The Price For the Seats\n";
        for(int a=0; a<frow; a++)
        {
                cout<<"Enter Seats for row "<< a+1<<endl;
                for(int b=0; b<col; b++)
                {
                        inpaudi[a][b]=10;
                        cout<<"Seat #: "<< b+1<<endl<<"$";
                        cin>>inpaudi[a][b];
                }

        }
}

void input2(char inp2grapaudi[][col],int frow)
{
```

```
        for(int c=0; c<frow; c++)
        {
                for(int d=0; d<col; d++)
                {
                        if(inp2grapaudi[c][d]=='*')
                                inp2grapaudi[c][d]='*';
                        else
                                inp2grapaudi[c][d]='#';
                }
        }

        for(int e=0; e<frow; e++)
        {
                cout<<"Row "<<e+1<<setw(1);
                for(int f=0; f<frow; f++)
                        cout<<inp2grapaudi[e][f]<<setw(1);
                cout<<endl;
        }


}

void input3(char inp3graphaudi[][col],double inp3audi[][col],int &count)
{
        int prow, pseat;
        char choices;
        cout<<"What seat you want to purchase"<<endl;
        cout<<"What row"<<endl;
        cin>>prow;
        cout<<"What seat"<<endl;
        cin>>pseat;
        if(inp3graphaudi[prow][pseat]=='*')
                cout<<"Its Taken Sorry";
        else if (inp3graphaudi[prow][pseat]=='#')
        {

                cout<<"Its available do you want to purchase Y for yes and N for
no\n";
                cin>>choices;
                if (choices=='y'||'Y')
                {
                        inp3graphaudi[prow][pseat]='*';
                        if (!isdigit(inp3audi[prow][pseat]))//if the user did not
press 1, then default number for what you purchase will be 10
                        {
                                inp3audi[prow][pseat]=10;

                        }
```

```
                        cout<< "price $" << inp3audi[prow][pseat]<<endl;
                        count++;
                }
                else if (choices=='n'||'N')
                {
                        cout<<"Come back again, bakck to menu"<<endl;
                }
        }

}

void input4(char inp4graphaudi[][col], double inp4audi[][col],int rrow, double
&total)
{
        for(int g=0; g<rrow;g++)
        {
                for(int h=0; h<col; h++)
                        if(inp4graphaudi[g][h]=='*')
                                total+=inp4audi[g][h];
        }
        cout<<"Total: $"<<total<<endl;
}

void input5(char inp5graphaudi[][col],int arow)
{
        char inp5choice;
        int coun=0;
        cout<<"Press 1 For how many seats in each row\nPress 2 for total of
avaliable seats\n";
        cin>>inp5choice;
        switch(inp5choice)
        {
                case '1':
                        for(int k=0; k<arow; k++)
                        {
                                cout<<"row "<<k+1<<endl;
                                int coun2=0;

                                for(int l=0; l<col; l++)
                                        if (inp5graphaudi[k][l]=='#')
                                        {
                                        coun2++ ;
                                        }
                                cout<<"Available: "<<coun2<<endl;
                        }
                                break;
                case '2':
```

```
                for(int i=0; i<arow; i++)
        {
                        for(int j=0; j<col; i++)
                                if (inp5graphaudi[i][j]=='#')
                        {
                                coun++;
                        }

        }
                        cout<<"Total of avaliavle seates :"<<coun<<endl;
                        break;
                                default:
                                        cout<<"Wrong input validation back to
menu"<<endl;
        }

}

void input6(char inp6graphaudi[][col], double inp6audi[][col], int inp6row)
{
        double tsales=0;

        for(int n=0; n<inp6row; n++)
        {
                for( int m=0; m<col; m++)
                {
                        if(inp6graphaudi[n][m]=='*')
                                tsales+=inp6audi[n][m];
                }

        }
                cout<<"Total Profit $:" <<tsales<<endl;

}

void input7(char inp6graphaudi[][col], double inp6audi[][col], double &inp6total)
{
        int inp6row, inp6col;
        cout<<"enter Row to delete"<<endl;
        cin>>inp6row;
        cout<<"enter Colum to delete"<<endl;
        cin>>inp6col;

        if(inp6graphaudi[inp6row][inp6col]=='*')
        {
                inp6graphaudi[inp6row][inp6col] ='#';
                inp6total-=inp6audi[inp6row][inp6col];
        }
```

```
        else
                cout<<"sorry invalid, it is already available"<<endl;

}
```