#include <iostream>

#include<stdio.h>

#include<string.h>

#include<conio.h>

#include<cstdlib>

#include<fstream>

using namespace std;

char b[3][3]={{'.','.','.'},{'.','.','.'},{'.','.','.'}};

void name\_assgn();

void score(char[],int,int);

void display();

int islocationempty(int);

int isempty();

//void final();

int insertval(int);

int str1[10],str2[10];

void replaceval(int,int);

char name1[30],name2[30];

int iswinner(int);

void file(int);

int FLAG = 1;

int IW = 0;

#define WINDOWS 1

void clrscr()

{

system("cls");

}

int main()

{

int i=0;

int f=0;

name\_assgn();

for(;;)

{

display();

if(isempty()){

int val = insertval(FLAG);

int locempt = islocationempty(val);

if(locempt == 1){

replaceval(val,FLAG);

display();

IW = iswinner(FLAG);

if(IW){

if(FLAG){

cout<<"check out the file included for the results";

//score(name1,1,i++);

f = 1;

file(f);

}

else{

cout<<"check out the file included for the results";

//score(name2,1,i++);

f=0;

file(f);

}

getch();

break;

}

}

else if(locempt == -1){

cout<<"Carefully insert number : ";

getch();

break;

}

else{

cout<<"Carefully insert number : ";

getch();

continue;

}

}

else{

if(IW == 0){

cout<<"Match Draw.";

getch();

break;

}

}

if(FLAG)FLAG = 0;

else FLAG = 1;

}

clrscr();

//final();

getch();

return 0;

}

void display()

{

int i,j,k=1;

clrscr();

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

cout<<k++<<"\t";

}

cout<<endl;

}

cout<<endl;

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

cout<<b[i][j]<<"\t";

}

cout<<endl;

}

cout<<endl;

}

int islocationempty(int n)

{

int i,j,fg = 0;

if(n >= 1 && n <= 9){

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

if(i\*3 + j == n-1)

{

if(b[i][j]=='.'){

fg = 1;

break;

}

}

}

if(fg)break;

}

return fg;

}else{

return -1;

}

}

/\*void score(char name[30],int l,int i)

{

if(strcmp(name,name1)==0)

{

str1[i-1] = l;

str2[i-1] = 0;

}

else if(strcmp(name,name2)==0)

{

str2[i-1] = l;

str1[i-1] = 0;

}

}\*/

/\*void final()

{

int sum1 = 0,sum2 = 0,i;

for(i=0;i<5;i++)

sum1+=str1[i];

for(i=0;i<5;i++)

sum2+=str2[i];

if(sum1 > sum2)

cout<<"the final winner is "<<name1;

else if(sum1 < sum2)

cout<<"the final winner is "<<name2;

else

cout<<"the final winners are "<<name1<<" and "<<name2;

}\*/

void file(int n)

{

fstream f;

f.open("D:\\t.txt",ios::out);

if(n == 1)

{

f<<name1<<" is winner";

}

else if(f == 0)

{

f<<name2<<" is winner";

}

f.close();

}

int isempty()

{

int i,j,f=0;

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

if(b[i][j]=='.'){

f = 1;

break;

}

}

if(f)break;

}

return f;

}

void name\_assgn()

{

cout<<"enter user 1 name ";

gets(name1);

cout<<"enter user 2 name ";

gets(name2);

}

int insertval(int FLAG)

{

int x;

if(FLAG == 1){

cout<<"enter for "<<name1<<" : "<<endl;

cout<<"Enter Location : ";

fflush(stdout);

cin>>x;

}

else

{

cout<<"enter for "<<name2<<" : "<<endl;

cout<<"enter location : ";

fflush(stdout);

cin>>x;

}

return x;

}

//replaceval is uded to insert input to board.

void replaceval(int x,int y)

{

int i,j,F = 0;

for(i=0;i<3;i++)

{

for(j=0;j<3;j++)

{

if(i\*3 + j == x-1)

{

if(y == 0)

{

b[i][j]='O';

}

else

{

b[i][j]='X';

}

F = 1;

break;

}

}

if(F)break;

}

}

int iswinner(int F)

{

int flag = 0;

if(F){

if(b[0][0]=='X' && b[0][1]=='X' && b[0][2]=='X')

{flag = 1;}

else if(b[1][0]=='X' && b[1][1]=='X' && b[1][2]=='X')

{flag = 1;}

else if(b[2][0]=='X' && b[2][1]=='X' && b[2][2]=='X')

{flag = 1;}

else if(b[0][0]=='X' && b[1][0]=='X' && b[2][0]=='X')

{flag = 1;}

else if(b[0][1]=='X' && b[1][1]=='X' && b[2][1]=='X')

{flag = 1;}

else if(b[0][2]=='X' && b[1][2]=='X' && b[2][2]=='X')

{flag = 1;}

else if(b[0][0]=='X' && b[1][1]=='X' && b[2][2]=='X')

{flag = 1;}

else if(b[0][2]=='X' && b[1][1]=='X' && b[2][0]=='X')

{flag = 1;}

}

else{

if(b[0][0]=='O' && b[0][1]=='O' && b[0][2]=='O')

{flag = 1;}

else if(b[1][0]=='O' && b[1][1]=='O' && b[1][2]=='O')

{flag = 1;}

else if(b[2][0]=='O' && b[2][1]=='O' && b[2][2]=='O')

{flag = 1;}

else if(b[0][0]=='O' && b[1][0]=='O' && b[2][0]=='O')

{flag = 1;}

else if(b[0][1]=='O' && b[1][1]=='O' && b[2][1]=='0')

{flag = 1;}

else if(b[0][2]=='O' && b[1][2]=='O' && b[2][2]=='O')

{flag = 1;}

else if(b[0][0]=='O' && b[1][1]=='O' && b[2][2]=='O')

{flag = 1;}

else if(b[0][2]=='O' && b[1][1]=='O' && b[2][0]=='O')

{flag = 1;}

}

return flag;

}