#include <iostream>

#include<string>

using namespace std;

bool checkWin(char dis[3][3], char player) {

// Check rows and columns

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

// Check rows

if((dis[i][0] == player && dis[i][1] == player && dis[i][2] == player)||

// Check columns

(dis[0][i] == player && dis[1][i] == player && dis[2][i] == player))

return true;

if((dis[0][0] == player && dis[1][1] == player && dis[2][2] == player)||

(dis[0][2] == player && dis[1][1] == player && dis[2][0] == player))

return true;

return false;

}}

void board(char dis[3][3]){

cout << " | | " << endl;

cout <<" "<<dis[0][0]<< " | "<<dis[0][1]<<" | "<<dis[0][2]<<" " << endl;

cout << "\_\_\_|\_\_\_|\_\_\_" << endl;

cout << " | | " << endl;

cout <<" "<<dis[1][0]<< " | "<<dis[1][1]<<" | "<<dis[1][2]<<" " << endl;

cout << "\_\_\_|\_\_\_|\_\_\_" << endl;

cout << " | | " << endl;

cout <<" "<<dis[2][0]<< " | "<<dis[2][1]<<" | "<<dis[2][2]<<" " << endl;

cout << " | | " << endl;

}

int main(){cout << " WELLCOM TO THE GAME " << endl;

cout<<endl;

char dis[3][3]={{'1','2','3'},{'4','5','6'},{'7','8','9'}};

const char x='x',o='o';

char player1;

char player2;

char currentplayer =player1;

int position;

bool win= false;

cout << "Player 1 enter the position from 'x'or'y'" << endl;

cin >> player1;

while(player1!=x&&player1!=o){

cout << "please enter a letter from 'x'or 'y'" << endl;

cin >> player1;}

if(player1==x){

player2=o;

cout << "player 1 is x" << endl;

cout << "player 2 is o" << endl;

currentplayer=x;}

else if(player1==o){

player2=x;

cout << "player 1 is o" << endl;

cout << "player 2 is x" << endl;

currentplayer=o;}

cout << " Good luck" << endl;

//we use 9 turn cause there is 3 row and coloumn

for(int turn=0;turn<9;turn++){

board(dis);

//this is optional if you want we can jump code this but our program have a problem

while(true) {

cout << "Player " << (currentplayer == player1 ? "1" : "2") << ", enter position (1-9): ";

if(!(cin >> position)) { // If input fails (non-number)

cin.clear(); // Clear error flag

cin.ignore(numeric\_limits<streamsize>::max(), '\n'); // Discard bad input

cout << "Please enter a number between 1-9!\n";

continue;

}

break; // Valid input

}

while(position < 1 || position > 9) {

cout << "Invalid position. Please enter 1-9: ";

cin >> position;}

int row = (position - 1) / 3;

int col = (position - 1) % 3;

while(dis[row][col] == x || dis[row][col] == o) {

cout << "Position already taken. Choose another: ";

cin >> position;

row = (position - 1) / 3;

col = (position - 1) % 3; }

dis[row][col]=currentplayer;

if(checkWin(dis, currentplayer)) {

cout << "\n | | " << endl;

cout << " " << dis[0][0] << " | " << dis[0][1] << " | " << dis[0][2] << " " << endl;

cout << "\_\_\_|\_\_\_|\_\_\_" << endl;

cout << " " << dis[1][0] << " | " << dis[1][1] << " | " << dis[1][2] << " " << endl;

cout << "\_\_\_|\_\_\_|\_\_\_" << endl;

cout << " " << dis[2][0] << " | " << dis[2][1] << " | " << dis[2][2] << " " << endl;

cout << " | | " << endl;

cout << "CONGRATULATIONS! Player " << (currentplayer == player1 ? "1" : "2") << " (" << currentplayer << ") wins!\n";

win = true;

break;

}

currentplayer=(currentplayer==player1)? player2:player1;

}

if(!win) {

cout << "\n | | " << endl;

cout << " " << dis[0][0] << " | " << dis[0][1] << " | " << dis[0][2] << " " << endl;

cout << "\_\_\_|\_\_\_|\_\_\_" << endl;

cout << " " << dis[1][0] << " | " << dis[1][1] << " | " << dis[1][2] << " " << endl;

cout << "\_\_\_|\_\_\_|\_\_\_" << endl;

cout << " " << dis[2][0] << " | " << dis[2][1] << " | " << dis[2][2] << " " << endl;

cout << " | | " << endl;

cout << "The game is a draw!\n";

}

return 0;}