

```

1  \TIK-TAC-TOK/
2  #include<stdio.h>
3  #include<string.h>
4  main()
5  {
6  char choice1,choice2;
7  int p1,p2,i,j,position,move=1,x=0,y=0,count=0,c=1,d=0,a[8],k=0,flag=1;
8  for(i=0;i<9;i++)
9  a[i]=3;
10 printf("Welcome to play TIC-TAC-TOE world\n");
11 printf("for reference to players\n");
12 printf(" _____\n");
13 printf("|a[0]|a[1]|a[2]|\n");
14 printf("|_|_|_| \n");
15 printf("|a[3]|a[4]|a[5]|\n");
16 printf("|_|_|_| \n");
17 printf("|a[6]|a[7]|a[8]|\n");
18 printf("|_|_|_| \n");
19 while(flag==1)
20 {
21 printf("Enter X or O for Player1\n");
22 scanf("%c",&choice1);
23 if(choice1=='X' || choice1=='x' || choice1=='O' || choice1=='o')
24 {
25     flag=0;
26 }
27 else
28 {
29     flag=1;
30     printf("Invalid choice\n");
31 }
32 }
33
34 if(choice1=='X' || choice1=='x')
35 {
36 choice2='O';
37 }
38 else
39 {
40 choice2='X';
41 }
42
43 printf("Player2 choice is %c\n",choice2);
44 if(choice1=='X' || choice1=='x')
45 {
46 p1=1;
47 p2=0;
48 }
49 else
50 {
51 p1=0;
52 p2=1;
53 }
54 while(move<3)
55 {
56     count=0;
57     if(move==1)
58     {
59         printf("Player1 Enter the position\n");
60         scanf("%d",&position);
61
62         if(a[position]==3)
63         {
64             a[position]=p1;
65             k=0;
66             for(i=0;i<3;i++)
67             {
68                 for(j=0;j<3;j++)
69                 {
70                     if(a[k]==3)
71                         printf("\t-");
72                     if(a[k]==1)
73                         printf("\tX");
74                     if(a[k]==0)
75                         printf("\tO");
76                     k++;
77                 }
78                 printf("\n");
79             }
80
81             if((a[0]==p1&&a[1]==p1&&a[2]==p1) || (a[3]==p1&&a[4]==p1&&a[5]==p1) || (a[6]==p1&&a[7]==p1&&a[8]==p1) ||
(a[0]==p1&&a[3]==p1&&a[6]==p1) || (a[1]==p1&&a[4]==p1&&a[7]==p1) || (a[2]==p1&&a[5]==p1&&a[8]==p1) ||
(a[2]==p1&&a[4]==p1&&a[6]==p1))
82             {
83                 printf("Player1 wins\n");
84                 x=1;
85                 printf("Thank you for playing this game\n");
86                 move=3;

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87         break;
88     }
89     else
90     {
91         move=2;
92     }
93 }
94 else
95 {
96     printf("This place is not empty.Please give another position\n");
97     move=1;
98 }
99
100 }
101 for(i=0;i<9;i++)
102 {
103
104     if(a[i]==3)
105         count++;
106 }
107 if(count==0)
108 {
109     move=3;
110     break;
111 }
112 if(move==2)
113 {
114     printf("Player2 Enter position\n");
115     scanf("%d",&position);
116
117     if(a[position]==3)
118     {
119         a[position]=p2;
120         k=0;
121         for(i=0;i<3;i++)
122         {
123             for(j=0;j<3;j++)
124             {
125                 if(a[k]==3)
126                     printf("\t-");
127                 else if(a[k]==1)
128                     printf("\tX");
129                 else
130                     printf("\t0");
131                 k++;
132             }
133             printf("\n");
134         }
135
136         if((a[0]==p2&&a[1]==p2&&a[2]==p2)|| (a[3]==p2&&a[4]==p2&&a[5]==p2)|| (a[6]==p2&&a[7]==p2&&a[8]==p2)||
(a[0]==p2&&a[3]==p2&&a[6]==p2)|| (a[1]==p2&&a[4]==p2&&a[7]==p2)|| (a[2]==p2&&a[5]==p2&&a[8]==p2)|| (a[0]==p2&&a[4]==p2&&a[8]==p2)||
(a[2]==p2&&a[4]==p2&&a[6]==p2))
        {
137             printf("Player2 wins\n");
138             y=1;
139             printf("Thank you for playing this game\n");
140             move=3;
141             break;
142         }
143     else
144     {
145         move=1;
146     }
147 }
148 else
149 {
150     printf("This place is not empty.Please give another position\n");
151
152     move=2;
153 }
154 }
155 }
156
157 }
158 }
159 if(x!=1&&y!=1)
160 {
161     printf("Draw Match\n");
162     printf("Thank you for playing this game\n");
163 }
164 }

```