TICK TACK TOE

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SECTION: P2

COURSE: BTECH CSE(IT)

SOURCE CODE:

```c
#include<stdio.h>
#include<string.h>
char x,o;
char a[9]={'1','2','3','4','5','6','7','8','9'};
char u1[50],u2[50];
void board();
void rules();
int checkforwin();
int main()
{
    FILE *p;
    p=fopen("score.txt","a+");
    fclose(p);
    system("color 09");
    int player=1;
    int choice,score=-1;
    char symbol,re;
    char start,dec;
    int s;
    rules();
    printf("\n\nType 1 to start the game:-\nType 2 to view leader board:-\n");
    scanf("%d",&s);
```

```c
if(s==1)
{
read:
    p=fopen("score.txt","a+");
printf("\nEnter name of player1: ");
scanf("%s",u1);
fprintf(p,"\n%s",u1);
printf("Enter name of player2: ");
scanf("%s",u2);
fprintf(p,"\t%s",u2);
fclose(p);
if(!strcmp(u1,u2))
{
    printf("Enter names of different players!\n\n");
    goto read;
}
else
    decision();

system("color fc");
board();

do
{

    player=((player%2)?1:2);
    if(player==1)
    printf("%s Type any digit from 1-9 to fill your response:- ",u1);
    else
        printf("%s Type any digit from 1-9 to fill your response:- ",u2);
    scanf("%d",&choice);
```

```c
    symbol=((player==1)?x:o);
    if(choice==1 && a[0]=='1')
        a[0]=symbol;
    else if(choice==2 && a[1]=='2')
        a[1]=symbol;
    else if(choice==3 && a[2]=='3')
        a[2]=symbol;
    else if(choice==4 && a[3]=='4')
        a[3]=symbol;
    else if(choice==5 && a[4]=='5')
        a[4]=symbol;
    else if(choice==6 && a[5]=='6')
        a[5]=symbol;
    else if(choice==7 && a[6]=='7')
        a[6]=symbol;
    else if(choice==8 && a[7]=='8')
        a[7]=symbol;
    else if(choice==9 && a[8]=='9')
        a[8]=symbol;
    else
        {printf("Wrong Selection\n");player--;}

    score=checkforwin();
    player++;
    board();
}while(score == -1);

p=fopen("score.txt","a+");
if(score==1)
{
```

```c
if(player==2)
{printf("\n\nPlayer1 %s Wins!\n\n",u1);fprintf(p,"\t%s",u1);
getch();}
else
    {printf("\n\nPlayer2 %s Wins!\n\n",u2);fprintf(p,"\t%s",u2);
getch();
    }
fclose(p);
}
else
    printf("\n\nGame Draws!\n\n");fprintf(p,"\t%s","DRAW");
    getch();
}
if(s==2)
{
    int cho;
    system("cls");
    printf("\n\n");
    printf("\tLEADERBOARD\n\n");
    char c;
    p=fopen("score.txt","r");
    while((c=getc(p))!=EOF)
    {
        printf("%c",c);
    }
    fclose(p);
    printf("\n\nPress 1 to start the game:- ");
    scanf("%d",&cho);
    if(cho==1)
        goto read;
    else
```

```c
        getch();
    }
    else
    {
        printf("\n\nShould have typed 1 to play the game!\nHope to see you back soon!\n\n");
        getch();
    }
}
int checkforwin()
{
    if(a[0]==a[1] && a[1]==a[2])
        return 1;
    else if(a[3]==a[4] && a[4]==a[5])
        return 1;
    else if(a[6]==a[7] && a[7]==a[8])
        return 1;
    else if(a[0]==a[3] && a[3]==a[6])
        return 1;
    else if(a[1]==a[4] && a[4]==a[7])
        return 1;
    else if(a[2]==a[5] && a[5]==a[8])
        return 1;
    else if(a[0]==a[4] && a[4]==a[8])
        return 1;
    else if(a[2]==a[4] && a[4]==a[6])
        return 1;
    else if(a[0]!='1' && a[1]!='2' && a[2]!='3' && a[3]!='4' && a[4]!='5' && a[5]!='6' && a[6]!='7' &&
a[7]!='8' && a[8]!='9')
        return 0;
    else
        return -1;
```

```c
}

void board()
{
    int i;

    system("cls");
    printf("\tTic-Tac-Toe\n\n");
        printf("\n\n");
        printf("%s:- (%c)\n%s:-  (%c)\n\n\n",u1,x,u2,o);


        printf(" %c | %c | %c\n",a[0],a[1],a[2]);
        printf("   |   |   \n");
        printf("----|----|----\n");
        printf("   |   |   \n");
        printf(" %c | %c | %c\n",a[3],a[4],a[5]);
        printf("   |   |   \n");
        printf("----|----|----\n");
        printf(" %c | %c | %c\n",a[6],a[7],a[8]);
        printf("   |   |   \n");
    }
void rules()
{
    char link;
    printf("\tTic-Tac-Toe\n\n");
    printf("Welcome to the most played 2D game and a sort of fun using X and O\n\n");
    printf("Rules:-\n");
    printf("\n1:Each player will be entering the number to put respective X or O in the desired position");
    printf("\n2:Player who gets a combination of 3 same characters either diagonal or horizontally or \n  vertically will be declared as the winner");
    printf("\n\nEnjoy the game! Be a Winner!\n\n");
```

```c
        printf("For more clarifications press Y else type any other character:- ");

    scanf("%c",&link);

    if(link=='y' || link=='Y')

    {

        system("start http://www.wikihow.com/Play-Tic-Tac-Toe");

    }


}
int decision()
{

    char dec;
        deci:
        printf("\n\nPlayer1 %s choose the X or 0:",u1);

        dec=getchar();

        scanf("%c",&dec);

        {

            if(dec=='X' || dec=='x')

            {

                x='X';

                o='0';

            }

            else if(dec=='0')

            {

                x='0';

                o='X';

            }

            else

            {

                printf("Please enter either X or 0 only \n\n");

                goto deci;

            }
```

```
        }

    }
```

OUTPUT:

```
        Tic-Tac-Toe

Welcome to the most played 2D game and a sort of fun using X and O

Rules:-

1:Each player will be entering the number to put respective X or O in the desired position
2:Player who gets a combination of 3 same characters either diagonal or horizontally or
  vertically will be declared as the winner

Enjoy the game! Be a Winner!

For more clarifications press Y else type any other character:- d


Type 1 to start the game:-
Type 2 to view leader board:-
1

Enter name of player1: sowmya
Enter name of player2: sandhya


Player1 sowmya choose the X or O:x
sh: 1: color: not found
```

```
Player1 sowmya choose the X or O:x
sh: 1: color: not found
sh: 1: cls: not found
        Tic-Tac-Toe


sowmya:- (X)
sandhya:-  (O)


  1 |  2 | 3
    |    |
----|----|----
    |    |
  4 |  5 | 6
    |    |
----|----|----
  7 |  8 | 9
    |    |
sowmya Type any digit from 1-9 to fill your response:- 1
sh: 1: cls: not found
        Tic-Tac-Toe


sowmya:- (X)
```

```
sowmya:- (X)
sandhya:-  (0)


  X |  2 | 3
    |    |
----|----|----
    |    |
  4 |  5 | 6
    |    |
----|----|----
  7 |  8 | 9
    |    |
sandhya Type any digit from 1-9 to fill your response:- 3
sh: 1: cls: not found
        Tic-Tac-Toe



sowmya:- (X)
sandhya:-  (0)


  X |  2 | 0
    |    |
----|----|----
```

```
  X |  2 | 0
    |    |
----|----|----
    |    |
  4 |  5 | 6
    |    |
----|----|----
  7 |  8 | 9
    |    |
sowmya Type any digit from 1-9 to fill your response:- 5
sh: 1: cls: not found
        Tic-Tac-Toe



sowmya:- (X)
sandhya:-  (0)


  X |  2 | 0
    |    |
----|----|----
    |    |
  4 |  X | 6
    |    |
----|----|----
  7 |  8 | 9
    |    |
```

```
----|----|----
 7 |  8 | 9
    |    |
sandhya Type any digit from 1-9 to fill your response:- 6
sh: 1: cls: not found
        Tic-Tac-Toe



sowmya:- (X)
sandhya:-  (0)


  X |  2 | 0
    |    |
----|----|----
    |    |
  4 |  X | 0
    |    |
----|----|----
 7 |  8 | 9
    |    |
sowmya Type any digit from 1-9 to fill your response:- 9
sh: 1: cls: not found
        Tic-Tac-Toe
```

```
sowmya:- (X)
sandhya:-  (0)


  X |  2 | 0
    |    |
----|----|----
    |    |
  4 |  X | 0
    |    |
----|----|----
 7 |  8 | X
    |    |


Player1 sowmya Wins!



Should have typed 1 to play the game!
Hope to see you back soon!
```