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#include <stdio.h>
#include <conio.h>
#include <windows.h>
#include <stdlib.h>
#include <ctype.h> //built-in functions that are useful for testing and mapping characters

char square[10] = {'0','1','2','3','4','5','6','7','8','9'};
int checkWin();
void drawBoard();

int main()
{
    int player = 1,i,choice;
    char mark; // X, O
    char response;
    do
    {
        do
        {
            drawBoard();
            player = (player % 2) ? 1 : 2;
            printf("Player %d, enter the choice: ",player);
            scanf("%d",&choice);
            mark = (player == 1) ? 'X' : 'O';
            if(choice == 1 && square[1] == '1')
                square[1] = mark;
            else if(choice == 2 && square[2] == '2')
                square[2] = mark;
        }
        while(response != 'y' && response != 'Y');
    }
    while(checkWin() != 1);
}
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else if(choice == 3 && square[3] =='3')
    square[3] = mark;
else if(choice == 4 && square[4] =='4')
    square[4] = mark;
else if(choice == 5 && square[5] =='5')
    square[5] = mark;
else if(choice == 6 && square[6] =='6')
    square[6] = mark;
else if(choice == 7 && square[7] =='7')
    square[7] = mark;
else if(choice == 8 && square[8] =='8')
    square[8] = mark;
else if(choice == 9 && square[9] =='9')
    square[9] = mark;
else
{
    printf("Invalid Option !");
    player--;
    getch();
}
i = checkWin();
player++;
}while(i == -1);
drawBoard();
if(i==1)
{
    printf("\n\n==>PLAYER %d WON!!!",--player);
}

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else
{
    printf("\n\n==>GAME DRAW!!");

}

printf("\nWould you like to play again? (Y/N): ");
scanf("%c");
scanf("%c",&response);
response = toupper(response);

}while(response == 'Y');

printf("Thanks for Playing!");

getch();
return 0;
}

int checkWin()
{
//Rows
if(square[1] == square[2] && square[2] == square[3])
    return 1;
else if(square[4] == square[5] && square[5] == square[6])
    return 1;
else if(square[7] == square[8] && square[8] == square[9])
    return 1;
//Columns
else if(square[1] == square[4] && square[4] == square[7])
    return 1;

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        else if(square[2] == square[5] && square[5] == square[8])
            return 1;

        else if(square[3] == square[6] && square[6] == square[9])
            return 1;

        //Diagonals

        else if(square[1] == square[5] && square[5] == square[9])
            return 1;

        else if(square[3] == square[5] && square[5] == square[7])
            return 1;

        else if(square[1] != '1' && square[2] != '2' && square[3] != '3' && square[4] != '4' &&
square[5] != '5' && square[6] != '6' && square[7] != '7' && square[8] != '8' && square[9] != '9')
            return 0;

        else
            return -1;
    }

}

void drawBoard()
{
    system("cls");
    printf("\n\n\t Tic Tac Toe \n\n");
    printf("Player1 (X) - Player2 (O)\n\n");
    printf("    |    |\n");
    printf(" %c | %c | %c \n",square[1],square[2],square[3]);
    printf("_____|_____|_____\n");
    printf("    |    |\n");
    printf(" %c | %c | %c \n",square[4],square[5],square[6]);
    printf("_____|_____|_____\n");
    printf("    |    |\n");
}

```

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printf(" %c | %c | %c \n",square[7],square[8],square[9]);
printf("   |   \n");
}

}
```