Mini Project

1   code in c language

```c
#include<stdio.h>
#include <conio.h>

char square[10] = { 'o', '1', '2', '3', '4', '5', '6', '7', '8', '9' };

int checkwin();
void board();
void win(int i,int player);
int playersel(int player);
int choicesel(int choice,int player);
int marksel(int player);
int main()
{
    int player, i, choice;
    player=playersel(player);
    char mark;
    do
    {
        board();
        player = (player % 2) ? 1 : 2;
        choice=choicesel(choice,player);

        mark=marksel(player);

        if (choice == 1 && square[1] == '1')
            square[1] = mark;

        else if (choice == 2 && square[2] == '2')
            square[2] = mark;

        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;
```

```c
            else if (choice == 8 && square[8] == '8')
                square[8] = mark;

            else if (choice == 9 && square[9] == '9')
                square[9] = mark;

            else
            {
                printf("Invalid move ");

                player--;
                getch();
            }
            i = checkwin();

            player++;
        }while (i == - 1);

        board();

        win(i, player);

        getch();

        return 0;
}
int checkwin()
{
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;

else if (square[1] == square[4] && square[4] == square[7])
        return 1;

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

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

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

```c
        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 win(int i,int player){

        if (i == 1)
                printf("\aPlayer %d win ", --player);
        else
                printf("game over");
}


void board()
{
        system("cls");
        printf("\n\n\tTic Tac Toe\n\n");

        printf("Player 1 (X)  -   Player 2 (O)\n\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");

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

        printf("     |     |     \n\n");
}
int playersel(int player){
        printf("enter player attempt no.");
        scanf("%d",&player);
        player = (player % 2) ? 1 : 2;
        return player;
}
int choicesel(int choice,int player){
```
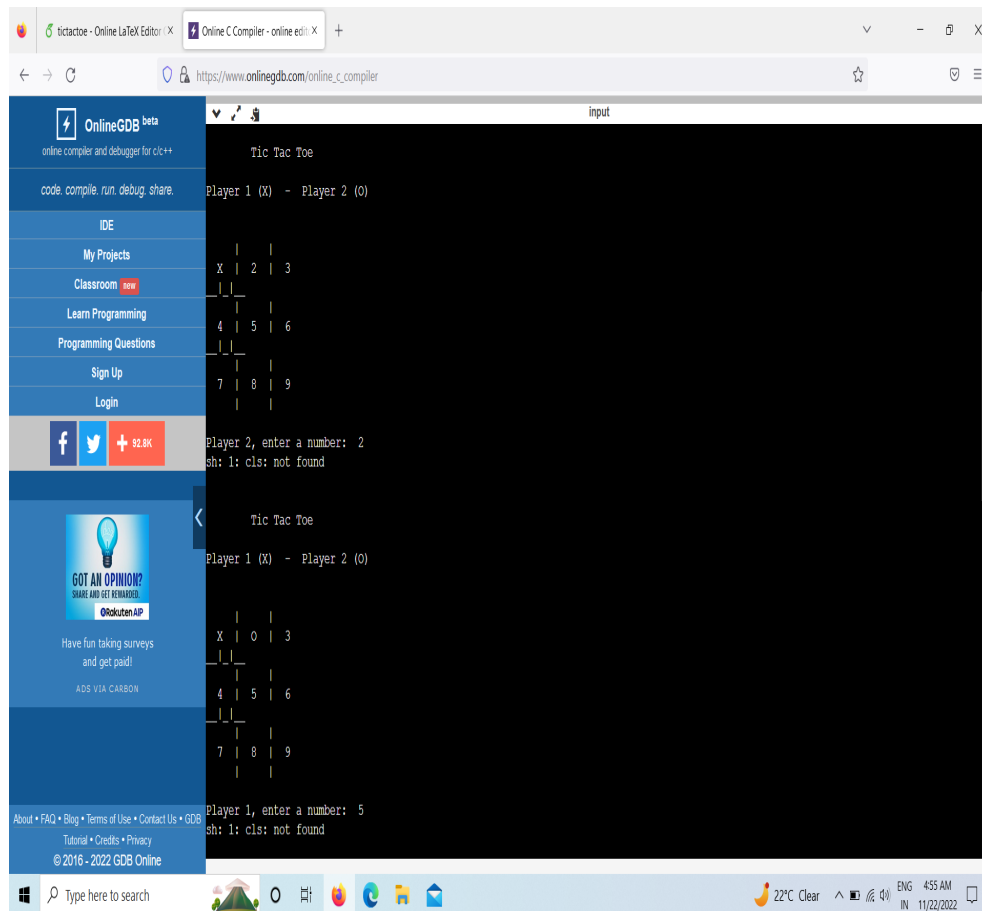
3

Figure 1: c code output

```
printf("Player %d, enter a number:   ", player);
        scanf("%d", &choice);
        return choice;
}
int marksel(int player){
int mark = (player == 1) ? 'X' : 'O';
return mark;
}
```

Figure 2: c code output 2

Figure 3: c code output 3

Figure 4: c code output 4