

```

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

int choice;char turn='X';int j=0;

main()
{

    display();


    input();


}

void input()
{

    while(game_over())
    {
        j++;
        if(j==10)
        {
            printf("draw the match\n");
            break;
        }

        printf("\n\n\tif you are not interested in game you press 10 and you can exit:\n\n");
        printf("\t\tif you are interested in game you press 1 to 9:-\n");
        if(turn=='X')
            printf("\tplayer1 [X] turn:");
        if(turn=='O')
            printf("\tplayer2 [O] turn:");
        scanf("%d",&choice);
    }
}

```

```
switch(choice)
{
    case 1:
        if(turn=='X' && a[0][0]!='X' && a[0][0]!='O')
        {
            a[0][0]=turn;
            turn='O';
        }
        else if(turn=='O' && a[0][0]!='X' && a[0][0]!='O')
        {
            a[0][0]=turn;
            turn='X';
        }
        break;
    case 2:
        if(turn=='X' && a[0][1]!='X' && a[0][1]!='O')
        {
            a[0][1]=turn;
            turn='O';
        }
        else if(turn=='O' && a[0][1]!='X' && a[0][1]!='O')
        {
            a[0][1]=turn;
            turn='X';
        }
        break;
    case 3:
        if(turn=='X' && a[0][2]!='X' && a[0][2]!='O')
        {
            a[0][2]=turn;
            turn='O';
        }
```

```
}  
else if(turn=='O' && a[0][2]!='X' && a[0][2]!='O')  
{  
    a[0][2]=turn;  
    turn='X';  
}  
break;  
case 4:  
    if(turn=='X' && a[1][0]!='X' && a[1][0]!='O')  
    {  
a[1][0]=turn;  
        turn='O';  
    }  
    else if(turn=='O' && a[1][0]!='X' && a[1][0]!='O')  
    {  
        a[1][0]=turn;  
        turn='X';  
    }  
    break;  
case 5:  
    if(turn=='X' && a[1][1]!='X' && a[1][1]!='O')  
    {  
        a[1][1]=turn;  
        turn='O';  
    }  
    else if(turn=='O' && a[1][1]!='X' && a[1][1]!='O')  
    {  
        a[1][1]=turn;  
        turn='X';  
    }  
    break;
```

case 6:

```
if(turn=='X' && a[1][2]!='X' && a[1][2]!='O')
```

```
{
```

```
    a[1][2]=turn;
```

```
    turn='O';
```

```
}
```

```
else if(turn=='O' && a[1][2]!='X' && a[1][2]!='O')
```

```
{
```

```
    a[1][2]=turn;
```

```
    turn='X';
```

```
}
```

```
break;
```

case 7:

```
if(turn=='X' && a[2][0]!='X' && a[2][0]!='O')
```

```
{
```

```
    a[2][0]=turn;
```

```
    turn='O';
```

```
}
```

```
else if(turn=='O' && a[2][0]!='X' && a[2][0]!='O')
```

```
{
```

```
    a[2][0]=turn;
```

```
    turn='X';
```

```
}
```

```
break;
```

case 8:a[2][1]=turn;

```
if(turn=='X' && a[2][1]!='X' && a[2][1]!='O')
```

```
{
```

```
    a[2][1]=turn;
```

```
    turn='O';
```

```
}
```

```
else if(turn=='O' && a[2][1]!='X' && a[2][1]!='O')
```

```

{
    a[2][1]=turn;
    turn='X';
}
break;
case 9:
if(turn=='X' && a[2][2]!='X' && a[2][2]!='O')
{
    a[2][2]=turn;
    turn='O';
}
else if(turn=='O' && a[2][2]!='X' && a[2][2]!='O')
{
    a[2][2]=turn;
    turn='X';
}
break;
case 10: return 0;
default: printf("invalid input\n");
}

```

```

display();

```

```

}

```

```

}

```

```

void display()

```

```

{

```

```

    system("cls");

```

```

    printf("          player1st [X]:\n ");

```

```

    printf("          player2nd [O]: ");

```

```

printf("\n\n\n\n\n");

```

```

printf("        |  |\n");
printf("        %c | %c | %c\n",a[0][0],a[0][1],a[0][2]);
printf("      ____|____|____\n");
printf("        |  |\n");
printf("        %c| %c | %c\n",a[1][0],a[1][1],a[1][2]);
printf("      ____|____|____\n");
printf("        |  |\n");
printf("        %c | %c | %c\n",a[2][0],a[2][1],a[2][2]);

```

```

}

void game_over()
{
    int i;
    for(i=0;i<=2;i++)
    {
        if(a[i][0]==a[i][1] && a[i][0]==a[i][2])
        {
            if(turn=='X')
                printf("player [O] win the match\n");
            else if(turn=='O')
                printf("player [X] win the match\n");
            return 0;
        }
    }

}

for(i=0;i<=2;i++)
{
    if(a[0][i]==a[1][i] && a[0][i]==a[2][i])
    {

```

```

        if(turn=='X')
            printf("player [O] win the match\n");
        else if(turn=='O')
            printf("player [X] win the match\n");
            return 0;
    }

}

if(a[0][0]==a[1][1] && a[0][0]==a[2][2])
{
    if(turn=='O')

        printf("player [X] win the match\n");
    else
        printf("player [O] win the match\n");

    return 0;

}

else if(a[0][2]==a[1][1] && a[0][2]==a[2][0])
{
    if(turn=='X')
        printf("player [O] win the match\n");
    else
        printf("player [X] win the match\n");
    return 0;

}

return 1;

}

```