

TIC-TAC-TOE

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CODE:

```
board=([[ '1', '1', '1'],[ '1', '1', '1'],[ '1', '1', '1']])

def check(board,user):
    for i in range(3):
        if(board[0][i]==user and board[1][i]==user and board[2][i]==user):
            return True
        if(board[i][0]==user and board[i][1]==user and board[i][2]==user):
            return True
        if(board[0][0]==user and board[1][1]==user and board[2][2]==user):
            return True
        if(board[0][2]==user and board[1][1]==user and board[2][0]==user):
            return True
    return False
```

```
def show(board):
    for b in board:
        print(b)
```

```
def full(board):
    for i in range(3):
        for j in range(3):
            if(board[i][j] == '1'):
                return False
    return True
```

```
user=0
```

```
user1=input("Enter user name:")
user2=input("Enter user name:")
```

```
while True :
```

```
    if (full(board)) :
        print("Draw")
        break
```

```
    if(user==0):
```

```
        show(board)
        print(user1 + " play")
        row=int(input("Enter row:"))
        col=int(input("Enter col:"))
```

```
        if(board[row][col]=='1'):
            board[row][col]='X'
        else:
```

```
print("Wrong!")
continue
```

```
if(check(board, 'X')):
    print(user1 + " won!")
    break
else:
    user=1
```

```
if(full(board)):
    print("Draw")
    break
```

```
if(user==1):
```

```
    show(board)
```

```
print(user2 + " play")
row=int(input("Enter row:"))
col=int(input("Enter col:"))
```

```
if(board[row][col]=='1'):
    board[row][col]='0'
else:
    print("Wrong!")
    continue
```

```
if(check(board, '0')):
    print(user2 + " won!")
    break
else:
    user=0
```

```
if full(board):
    print("Draw")
    break
```

OUTPUT:

//draw

```
Enter user name:shreya
Enter user name:sakshi
['1', '1', '1']
['1', '1', '1']
['1', '1', '1']
shreya play
Enter row:0
Enter col:0
['X', '1', '1']
['1', '1', '1']
['1', '1', '1']
sakshi play
Enter row:0
Enter col:1
['X', '0', '1']
['1', '1', '1']
['1', '1', '1']
shreya play
Enter row:1
Enter col:1
['X', '0', '1']
['1', 'X', '1']
['1', '1', '1']
sakshi play
Enter row:2
Enter col:2
['X', '0', '1']
['1', 'X', '1']
['1', '1', '0']
shreya play
Enter row:1
Enter col:2
['X', '0', '1']
['1', 'X', 'X']
['1', '1', '0']
sakshi play
Enter row:1
Enter col:0
['X', '0', '1']
['0', 'X', 'X']
['1', '1', '0']
shreya play
Enter row:0
Enter col:2
['X', '0', 'X']
['0', 'X', 'X']
['1', '1', '0']
sakshi play
Enter row:2
Enter col:0
['X', '0', 'X']
['0', 'X', 'X']
['0', '1', '0']
shreya play
Enter row:2
Enter col:1
Draw
```

//win

```
Enter user name:shreya
Enter user name:santosh
['1', '1', '1']
['1', '1', '1']
['1', '1', '1']
shreya play
Enter row:1
Enter col:1
['1', '1', '1']
['1', 'X', '1']
['1', '1', '1']
santosh play
Enter row:0
Enter col:0
['0', '1', '1']
['1', 'X', '1']
['1', '1', '1']
shreya play
Enter row:0
Enter col:1
['0', 'X', '1']
['1', 'X', '1']
['1', '1', '1']
santosh play
Enter row:1
Enter col:0
['0', 'X', '1']
['0', 'X', '1']
['1', '1', '1']
shreya play
Enter row:2
Enter col:1
shreya won!
```