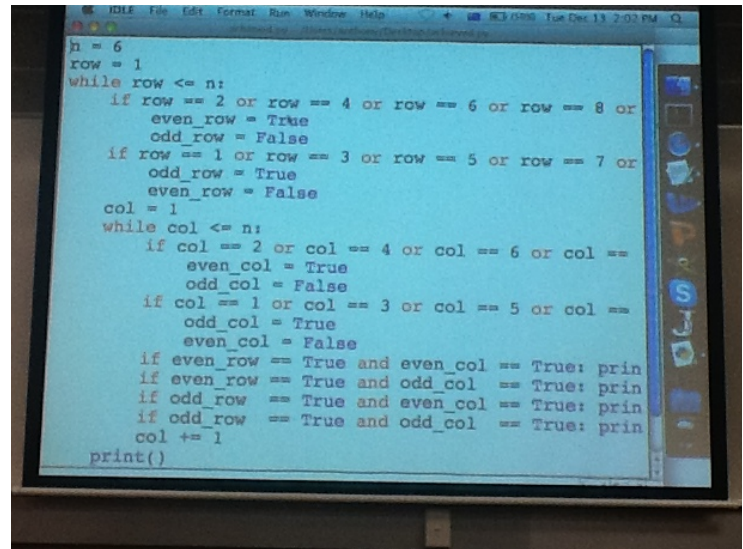


## Bonus Session

### AME Examples:

#### Achieved Example -->

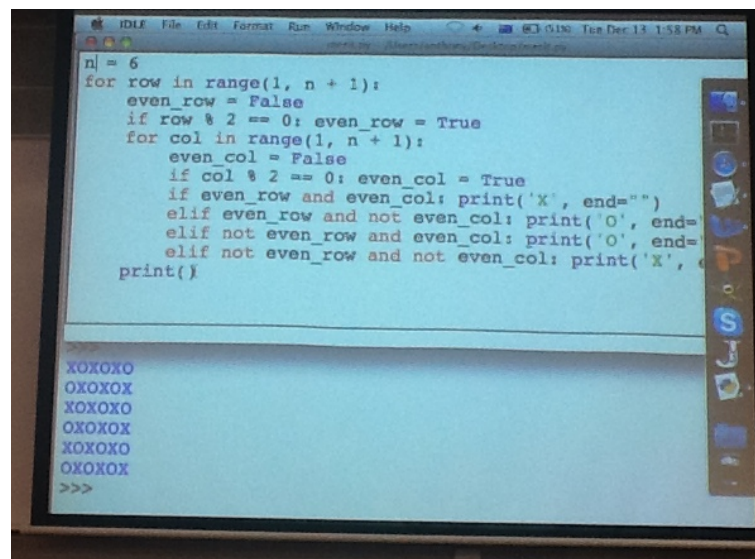
Works, has errors, messy, poor code and laborious



```
n = 6
row = 1
while row <= n:
    if row == 2 or row == 4 or row == 6 or row == 8 or
    even_row = True
    odd_row = False
    if row == 1 or row == 3 or row == 5 or row == 7 or
    odd_row = True
    even_row = False
    col = 1
    while col <= n:
        if col == 2 or col == 4 or col == 6 or col ==
        even_col = True
        odd_col = False
        if col == 1 or col == 3 or col == 5 or col ==
        odd_col = True
        even_col = False
        if even_row == True and even_col == True: prin
        if even_row == True and odd_col == True: prin
        if odd_row == True and even_col == True: prin
        if odd_row == True and odd_col == True: prin
        col += 1
    print()
```

#### Merit Example -->

Tidied up code, removed while and multiple if statements.

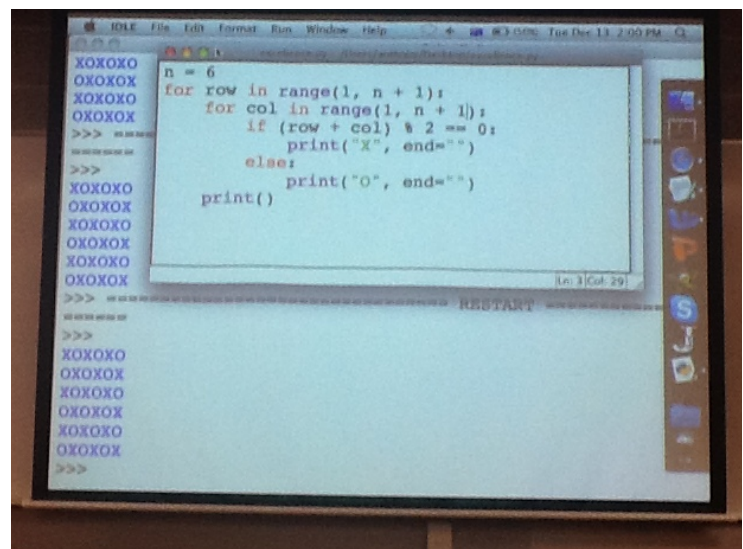


```
n = 6
for row in range(1, n + 1):
    even_row = False
    if row % 2 == 0: even_row = True
    for col in range(1, n + 1):
        even_col = False
        if col % 2 == 0: even_col = True
        if even_row and even_col: print('X', end=" ")
        elif even_row and not even_col: print('O', end=" ")
        elif not even_row and even_col: print('O', end=" ")
        elif not even_row and not even_col: print('X', end=" ")
    print()
```

```
XOXOXO
OXOXOX
XOXOXO
OXOXOX
XOXOXO
OXOXOX
>>>
```

#### Excellence Example -->

Not much can be improved. More structured and a logical solution.



```
XOXOXO
OXOXOX
XOXOXO
OXOXOX
XOXOXO
OXOXOX
>>>
```

```
n = 6
for row in range(1, n + 1):
    for col in range(1, n + 1):
        if (row + col) % 2 == 0:
            print("X", end=" ")
        else:
            print("O", end=" ")
    print()
```

```
>>> RESTART
```

```
XOXOXO
OXOXOX
XOXOXO
OXOXOX
XOXOXO
OXOXOX
>>>
```

**NOTE:**  
Cannot give students a plan that maps it out