CSc 120
Introduction to Computer Programming II

CODE EXAMPLES 01 🌻😊
Example 1 😞
def grid_is_square(arglist):
    length = len(arglist)
    i = 0
    for i in range(length):
        x = 0
        if arglist[i][x] == arglist[x][i]:
            return True
        elif arglist[i][x] != arglist[x][i]:
            return False
def grid_is_square(arglist):
    length = len(arglist)
    i = 0
    for i in range(length):
        x = 0
        if arglist[i][x] == arglist[x][i]:
            return True
        elif arglist[i][x] != arglist[x][i]:
            return False

if BoolExpr:
    x = True
else:
    x = False

is equivalent to:

x = BoolExpr
def grid_is_square(arglist):
    length = len(arglist)
    i = 0
    for i in range(length):
        x = 0
        return arglist[i][x] == arglist[x][i]

Simplifying out the Boolean expression makes the bug in the code easier to see
def grid_is_square(arglist):
    length = len(arglist)
    i = 0
    for i in range(length):
        x = 0
        return arglist[i][x] == arglist[x][i]

this initialization has no effect
def grid_is_square(arglist):
    length = len(arglist)
    i = 0
    for i in range(length):
        x = 0
        return arglist[i][x] == arglist[x][i]
def grid_is_square(arglist):
    length = len(arglist)
    for i in range(length):
        return arglist[i][0] == arglist[0][i]

returns on the first iteration
Example 2 😊
def concat_elements(list, startpos, stoppos):
    result = ""
    if (startpos < 0):
        startpos = 0
    if (stoppos > len(list)):
        stoppos = len(list)
    if (startpos > stoppos):
        return ''
    a = list[startpos:stoppos+1]

    result = "".join(a)

    return result
def concat_elements(list, startpos, stoppos):
    result = ""
    if (startpos < 0):
        startpos = 0
    if (stoppos > len(list)):
        stoppos = len(list)
    if (startpos > stoppos):
        return ""
    a = list[startpos:stoppos+1]
    result = ".join(a)
    return result
def concat_elements(list, startpos, stoppos):
    result = ""
    startpos = max(startpos, 0)
    stoppos = min(stoppos, len(list))
    if (startpos > stoppos):
        return ""
    a = list[startpos:stoppos+1]
    result = ".join(a)
    return result

This is not really needed
def concat_elements(list, startpos, stoppos):
    result = ""
    startpos = max(startpos, 0)
    stoppos = min(stoppos, len(list))
    a = list[startpos:stoppos+1]
    result = "".join(a)
    return result
def concat_elements(list, startpos, stoppos):
    new = ""
    for i in range (max(0, startpos),
                    min( len(list), stoppos + 1)):
        new += list [i]

    return new