

Assignment 2

January 25, 2020

1 Assignment 2

1.1 Problem 1

The code in the first cell below is one of the examples of conditional execution templates we went over in class. Your task is to use the code to build an equivalent function. In this function, the logical variables, which are set in the example, become parameters of the function. Name your function “ex1”. Place your code in the code cell below the cell containing the original code. There are three commands I have already placed in that cell, where you will write. These commands serve to test the function you construct. Note that your function is void

```
[3]: # Do not write in this cell
```

```
cond1 = True
cond2 = True
cond3 = True
if cond1:
    print("Point A")
elif cond2:
    print("Point B")
elif cond3:
    print("Point C")
else:
    print("Point D")
print("Point E")
```

Point A

Point E

```
[15]: # Place your code here.
```

```
def ex1(cond1, cond2, cond3):
    if(cond1):
        return "Point A"
    elif(cond2):
        return "Point B"
    elif(cond3):
        return "Point C"
```

```

    else:
        return("Point D")
print("point E")

# Here are the three test commands
print(ex1(True,True,True))
print(ex1(False,False,False))
print(ex1(False,True,False))

```

```

point E
Point A
Point D
Point B

```

CASE No.1 point E will be printed firstly because a function ‘print(“point E”)’ doesn’t belong to the function ‘ex1’. point A will be printed secondly since parameter cond1 is True. point D will be printed on the next row since none of cond1, cond2, cond3 are true. point B will be printed since cond1 parameter is False but cond2 is True.

```

[17]: def ex1(cond1, cond2, cond3):
        if(cond1):
            return "Point A"
        elif(cond2):
            return "Point B"
        elif(cond3):
            return "Point C"
        else:
            return("Point D")
        return("point E")

# Here are the three test commands
print(ex1(True,True,True))
print(ex1(False,False,False))
print(ex1(False,True,False))

```

```

Point A
Point D
Point B

```

[0]: CASE No.2
Although this time `return("point E")` is added to the function, it will **not** be printed out since it doesn't belong to anywhere.
From the first and second shells, point E is printed out because `print("point E")` function belongs to Python program without affecting from conditions.
That's why it is important to have a proper indentation in front of each code.

1.2 Problem 2

Following the example we did in class, use the actual information in the syllabus for this class to write a function `gcf(ng)`. The parameter `ng` is a numerical grade between 0 and 100. Your function should be fruitful and return a letter grade. In the cell below, I have placed three commands to test your function.

```
[24]: # Place your code here.
def gcf(ng):
    if ng >= 95:
        return("A")
    elif ng >= 90 and ng < 95:
        return("A-")
    elif ng >= 86 and ng < 90:
        return("B+")
    elif ng >= 83 and ng < 86:
        return("B")
    elif ng >= 80 and ng < 83:
        return("B-")
    elif ng >= 76 and ng < 80:
        return("C+")
    elif ng >= 73 and ng < 76:
        return("C")
    elif ng >= 70 and ng < 73:
        return("C-")
    elif ng >= 65 and ng < 70:
        return("D+")
    elif ng >= 60 and ng < 65:
        return("D")
    else :
        return("F")

print(gcf(93))
print(gcf(86))
print(gcf(59))
```

A-
B+
F

[0]: