

GNBF5010 Tutorial 1 - Exercises for Lecture 1 &2

Please name your scripts as qXX_XXXXX.py, where the qxx is the question number and XXXXX is the last five digits of your student ID. Then submit your scripts to [this](#) folder.

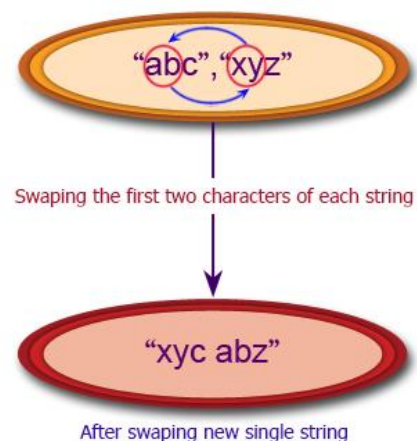
1. Indentation

The following code contains several nested if-else statements. Unfortunately, it was written without proper alignment and indentation. Rewrite the code and use the proper conventions of alignment and indentation.

```
if score >= A_score:
print('Your grade is A.')
else:
if score >= B_score:
print('Your grade is B.')
else:
if score >= C_score:
print('Your grade is C.')
else:
if score >= D_score:
print('Your grade is D.')
else:
print('Your grade is F.')
```

2. String

Write a Python program to get a single string from two given strings, separated by a space and swap the first two characters of each string. For example, str1 = "abc", str2 = "xyz", then print "xyc abz".



3. Input function and if-else

The area of a rectangle is the rectangle's length times its width. Write a program that asks for the length and width of two rectangles. The program should tell the user which rectangle has the greater area, or if the areas are the same.

4. **for loop**

Write a program that asks the user to enter the starting number (integer), ending number (integer, inclusive) and the word "even" or "odd". Then generate a customized printout based on their input. Here's a sample running of the program:

```
Starting number: 5
Ending number: 14
Print even or odd numbers? even
6
8
10
12
14
```

5. **while-loop**

Write a simple "shopping cart" program that asks the user for a series of product prices. Compute sales tax (7%) on each price and print out the new price to the user. Next, ask the user if they want to enter another price - if they do, repeat the process. If not, show the total amount spent in addition to total tax due, and end the program. Here's some sample output:

```
Enter an item price: 1
Tax on this item is 0.07; new price is 1.07
Would you like to enter another value? Type 'q' to quit; otherwise continue:

Enter an item price: 2
Tax on this item is 0.14; new price is 2.14
Would you like to enter another value? Type 'q' to quit; otherwise continue:

Enter an item price: 3
Tax on this item is 0.21; new price is 3.21
Would you like to enter another value? Type 'q' to quit; otherwise continue: q

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Total amount due: 6.42
```