

CSC241 - Assignment 2

Reading: Chapter 3

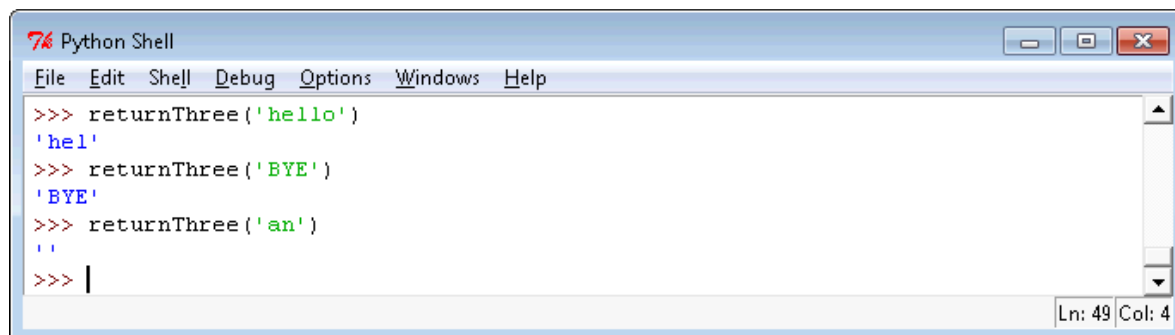
Instructions:

1. Read the **HW guidelines** posted in `d2l.depaul.edu > contents > admin`.
2. The file containing your solutions **MUST** be named **hw2.py**. In a comment, include the name(s) of any collaborators.
3. Implement your solution to each of the problems below and include them in your file.
4. To receive full credit, the **names** of files, functions and the **output** must be **exactly** as indicated here.
5. **Test your code** by downloading the file **hw2TEST.py** in the same working folder , adding the following code to `hw2.py`, and running the module `hw2.py`. Make sure to fix all errors before you submit your `hw2.py`.

```
if __name__=='__main__':  
    import doctest  
    print( doctest.testfile('hw2TEST.py') )
```

Programming Problems:

1. Implement a function `returnThree` that takes one argument, a string, and **returns** the first three characters of the string. If the string has length less than 3, then an empty string should be returned. The information below shows how you would call the function `returnThree` and what it would display for several sample parameters:

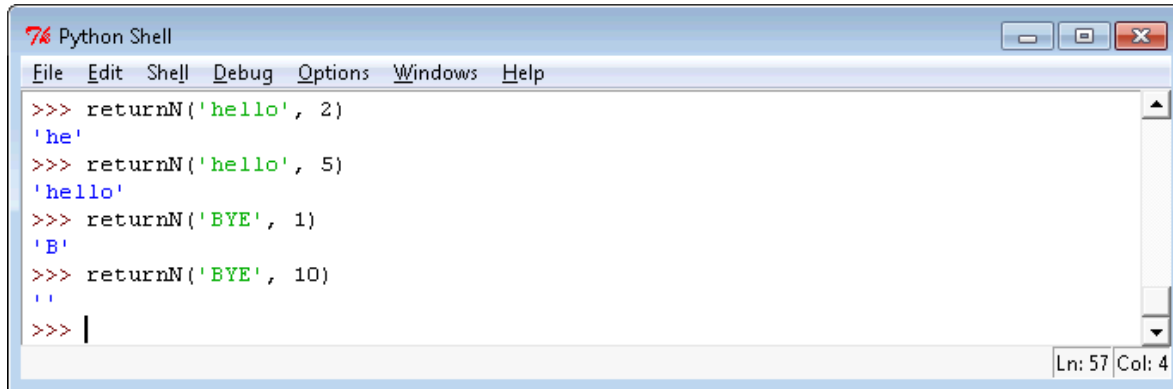


The screenshot shows a Python Shell window with a menu bar (File, Edit, Shell, Debug, Options, Windows, Help) and a command prompt. The following code is entered and executed:

```
>>> returnThree('hello')  
'hel'  
>>> returnThree('BYE')  
'BYE'  
>>> returnThree('an')  
''  
>>> |
```

The status bar at the bottom right indicates "Ln: 49 Col: 4".

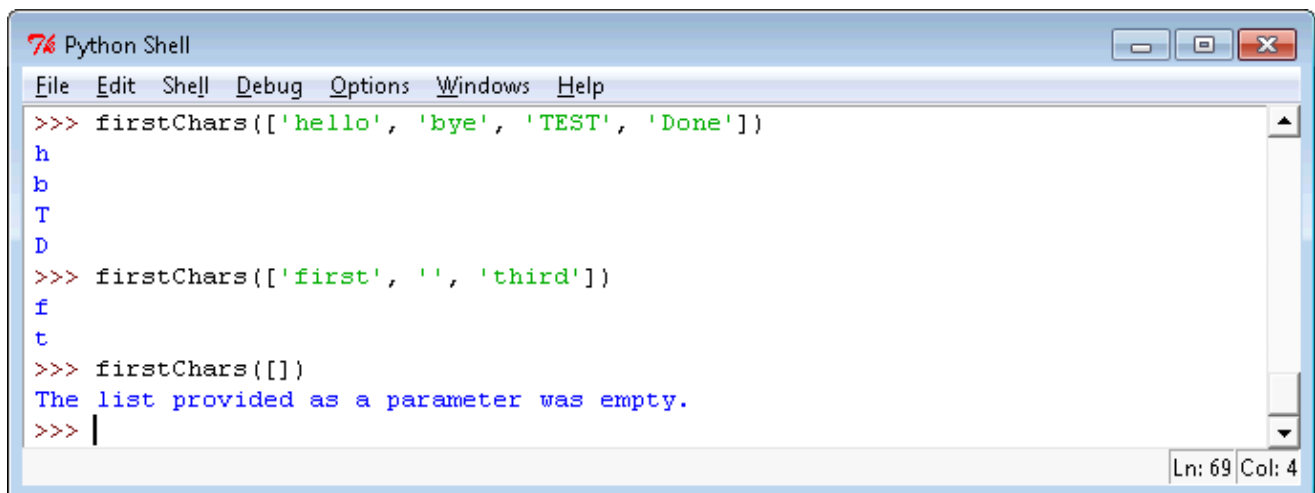
2. Implement a function `returnN` that accepts two arguments, a string `s` and an integer `n`, and returns the first `n` characters of the string `s`. If the string has length less than `n`, then an empty string should be returned. The information below shows how you would call the function `returnN` and what it would display for a few different parameters:



```
Python Shell
File Edit Shell Debug Options Windows Help
>>> returnN('hello', 2)
'he'
>>> returnN('hello', 5)
'hello'
>>> returnN('BYE', 1)
'B'
>>> returnN('BYE', 10)
''
>>> |
```

Ln: 57 Col: 4

3. Implement the function `firstChars` that takes accepts a list of strings and **prints** to the screen the first character of each string, one per line. If the list provided as a parameter is empty, the function prints a message to that effect. If any of the strings are empty, they are skipped in the display. The information below shows how you would call the function `firstChars` and what it would display for a couple of parameters:



```
Python Shell
File Edit Shell Debug Options Windows Help
>>> firstChars(['hello', 'bye', 'TEST', 'Done'])
h
b
T
D
>>> firstChars(['first', '', 'third'])
f
t
>>> firstChars([])
The list provided as a parameter was empty.
>>> |
```

Ln: 69 Col: 4

4. Implement a function `printGreater` that takes two arguments, a list of numbers and a numeric value. It **prints** the numbers in the list that are greater than the value, all on one line with a space between them. If an empty list is provided as the first parameter, the function doesn't print anything. The information below shows how you would call the function `printGreater` and what it would display for some example parameters:

```
>>> printGreater([1, -3, 12, -5, 0], 0)
1 12
>>> printGreater([2, 4, 6, 8, 10], 5)
6 8 10
>>> printGreater([-1, -2, -3], -1)
>>> printGreater([], 10)
>>> printGreater([1, 2, 3, 4, 5, 6, 7, 8], 0)
1 2 3 4 5 6 7 8
>>> |
```