

Creating Titles

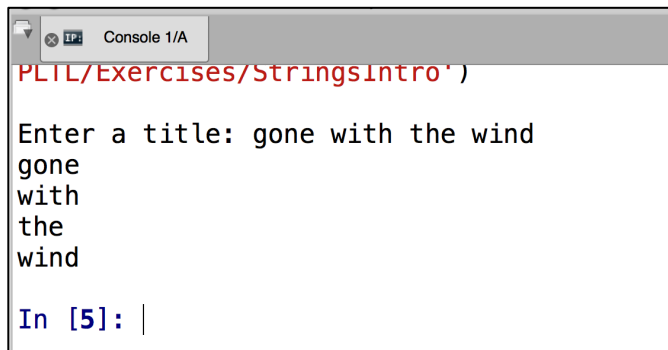
In this exercise, you will work with a partner to write a program that prompts the user for a book title and displays a version of the book title that follows certain capitalization rules for titles. Your program will use only string operations, control statements, assignment statements, input statements and print statements. ***(Like this week's CSE 231 project, you will NOT use lists!)*** Develop the program incrementally, as described below.

Version 1: To apply any capitalization rules, your program will first need to be able to isolate the words in the title. So the first version of the program will just implement the following algorithm:

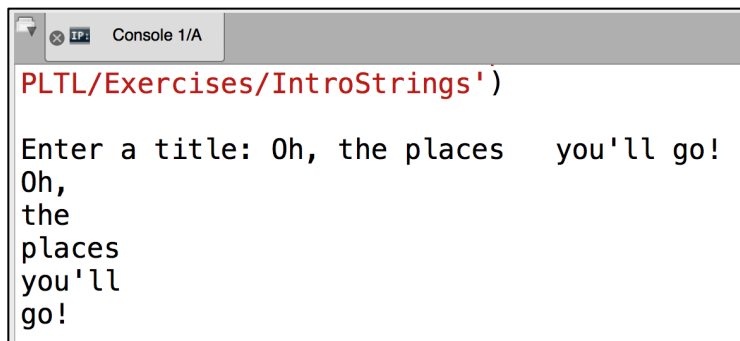
```
-- prompt the user for a book title
-- loop:
    * assign the next word of the title to a variable
    * print the value of this variable on its own line
```

You can assume that at least one space separates consecutive words in the title entered by the user. You should treat any punctuation as part of the word it is attached to.

To clarify, some sample interactions with our first program are shown below. (The first line shows the prompt printed by the input expression and the title entered for testing.)



```
PLTL/Exercises/StringsIntro')
Enter a title: gone with the wind
gone
with
the
wind
In [5]: |
```

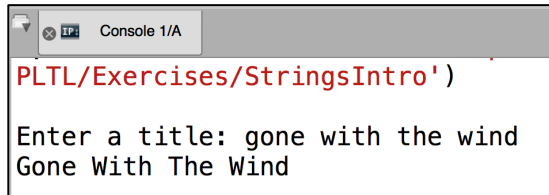


```
PLTL/Exercises/IntroStrings')
Enter a title: Oh, the places you'll go!
Oh,
the
places
you'll
go!
```

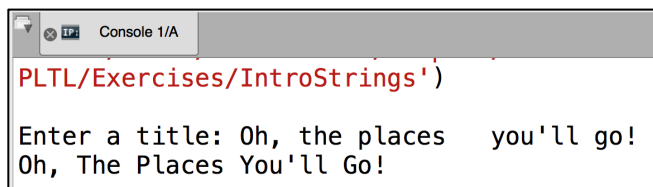
Version 2: For this version, display a title in which every word begins with a capital letter and a single space separates consecutive words. Do this by adding code to:

- * Assign the empty string to a new variable (a 'working variable')
- * On each iteration of the loop, update the working variable to include a capitalized copy of the new word and a space character, as needed
- * Print the fully capitalized title with exactly one space between words.

For example:



```
PLTL/Exercises/StringsIntro')
Enter a title: gone with the wind
Gone With The Wind
```

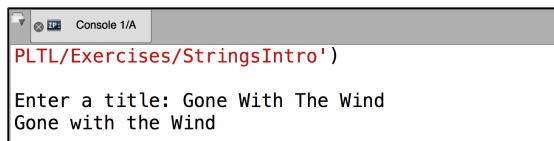


```
PLTL/Exercises/IntroStrings')
Enter a title: Oh, the places you'll go!
Oh, The Places You'll Go!
```

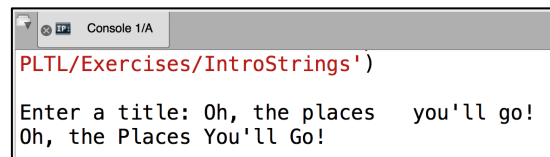
Version 3: Certain short words should be capitalized in a title only if they are the first or last word in the title. Modify your program so that it capitalizes the following short words if and only if they are first or last in the title.

Short words not to capitalize: a, an, and, the, but, for, on, at, to, from, by, with, it,

Some examples:



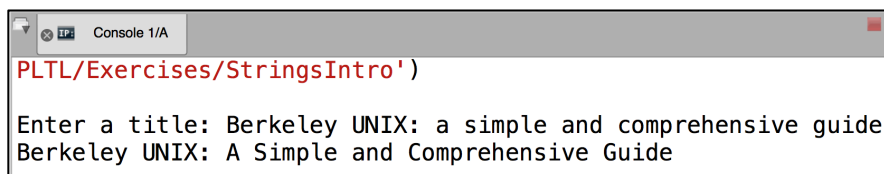
```
PLTL/Exercises/StringsIntro')
Enter a title: Gone With The Wind
Gone with the Wind
```



```
PLTL/Exercises/IntroStrings')
Enter a title: Oh, the places you'll go!
Oh, the Places You'll Go!
```

Version 4: There is an exception to the rule about short words. The first word following a colon (:) should always be capitalized. Modify your program to enforce this rule.

For example:



```
PLTL/Exercises/StringsIntro')
Enter a title: Berkeley UNIX: a simple and comprehensive guide
Berkeley UNIX: A Simple and Comprehensive Guide
```