Unit 3 Assignment

**ANLY:520-51 (Fall 2016)**

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# **Solutions:**

1. **Define a string s = 'colorless'. Write a Python statement that changes this to "colourless" using only the slice and concatenation operations.**
2. **We can use the slice notation to remove morphological endings on words. For example, 'dogs'[:-1] removes the last character of dogs, leaving dog. Use slice notation to remove the affixes from these words (we've inserted a hyphen to indicate the affix boundary, but omit this from your strings): dish-es, run-ning, nation-ality, un-do, pre-heat.**
3. **We saw how we can generate an IndexError by indexing beyond the end of a string. Is it possible to construct an index that goes too far to the left, before the start of the string?**
4. **We can specify a "step" size for the slice. The following returns every second character within the slice: monty[6:11:2]. It also works in the reverse direction: monty[10:5:-2] Try these for yourself, then experiment with different step values.**
5. **What happens if you ask the interpreter to evaluate monty[::-1]? Explain why this is a reasonable result.**
6. **Describe the class of strings matched by the following regular expressions.**
7. **[a-zA-Z]+**
8. **[A-Z][a-z]\***
9. **p[aeiou]{,2}t**
10. **\d+(\.\d+)?**
11. **([^aeiou][aeiou][^aeiou])\***
12. **\w+|[^\w\s]+**

**Test your answers using nltk.re\_show().**