

Exercises, Week 1, Day 2

Solving some of these may require methods or features that you haven't been explicitly taught about. Use `dir`, `help` and `??` to examine objects and search for useful functions.

1. At the interactive prompt, define a string like this: `strC = "abc\ndef\tghi"`. Explain what the entering the following two commands do, and why they differ:

```
>>> print strC
>>> strC
```

2. If the string `strA` is defined as `abcdefghijkl`, what does `strA[3:10:-1]` do? What does `strA[::-2]` do? Why?
3. Write a function `cleanSeq` that takes a molecular sequence, and tidies it up by trimming any flanking gaps characters `-`, removes any internal spaces and converts the sequence to upper case.
4. Create a function that censors text. Given a source text and a forbidden word, it returns the source text with the forbidden word replaced by a line or asterisks of the correct length.
5. Modify the function to take a list of forbidden words.
6. Modify the function so that it works regardless of how the forbidden word is capitalized.
7. Write a function `findMotifs` that takes a short "motif" string and a longer molecular sequence and finds all the occurrences of the first in the second.