

Assignment 5: First programming assignment

Start the assignment *before* class and bring any questions and your work-in-progress to class. The instructor will answer questions and provide assistance as needed. When finished, you'll turn it in using subversion (`svn`), which you'll learn how to use during the next class. The due date is Sept 22.

1. Create a new python module file `hw5.py`. Add the following functions to the file.
2. Write a function called `readFasta` that accepts one argument: the name of a fasta format file (`fn`) containing one or more sequences. The function should read the file and return a dictionary where the keys are the fasta headers and the values are the corresponding sequences from file `fn` converted to strings. Make sure that you don't include any new lines or other whitespace characters in the sequences in the dictionary.

For example, if a file `file.fa` looks like:

```
>one
atctac
>two
gggaccttg
>three
gacattac
```

Then `hw5.readFasta(f)` returns

```
{ 'one' : 'atctac',
  'two' : 'gggaccttg',
  'three': 'gacattac' }
```

3. Write a function called `findString` that accepts two arguments: a string (`target`) and another string (`query`) and then returns a list of all indices in `target` where `query` appears. If `target` does not contain `query`, return an empty list.

For example,

```
findString('attaggtttattgg', 'gg')
```

returns:

```
[4, 12]
```

