

# CS1117: Exercise Sheet 7

## Week 8

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1. Open the file *debanks.txt* in a text editor. Have a look at the file to familiarise yourself with the contents (and more importantly the structure).
  - a. Without referencing your notes, try printing the line number and lyric to the screen using the `readline()` method. Use a loop.
  - b. Without referencing your notes, try printing the line number and lyric to the screen using the `read()` method.

You may need to use the `split` method. The `split` method splits a string on a certain character. An example of how to use the `split` method below.

```
myString = "Hi there! How are you?! Bye!"  
phrases = myString.split("!")           #phrases is a list
```

- c. Without referencing your notes, try printing the line number and lyric to the screen using the `readlines()` method.
  - d. Without referencing your notes, try printing the line number and lyric to the screen using a file iterator.

If you did need to refer to your notes, that's fine but then try the question again later in the week to see if you can do it without help.

2. You have been given a file *dna.txt*. Open *dna.txt* in a text editor and have a look at it. It contains DNA sequences related to several people.

It only makes sense to process this using the `read()` method (Why? If you don't understand ask a demonstrator).

Create a list that contains each person's DNA, using the `read` method to read from the file. Use a loop to print out the persons ID (starting at 0) and their associated DNA sequence. The output should look as follows:

```
0 : CCACTGCACT....  
1: GGCAGATTCC...  
2: AAAAAAAT...  
etc
```

As you will need to pull out every person's DNA from the string you will need to split the string into parts (which are saved as a list). You can do this using the split method.