

# Starter - Files

These tasks are designed to refresh the reading and research you have undertaken at home prior to this lesson. If you have not completed the R&R assignment then please speak to your teacher before attempting these exercises.

## Modes and encoding

You have been introduced to the various file opening modes that are used in Python. Refresh your knowledge of these concepts by attempting the below tasks.

### Task 1

Mode	Explanation
a	Append, adds to an existing file.
w	Write, overwrites a file.
r	Read, allows you to read the file.

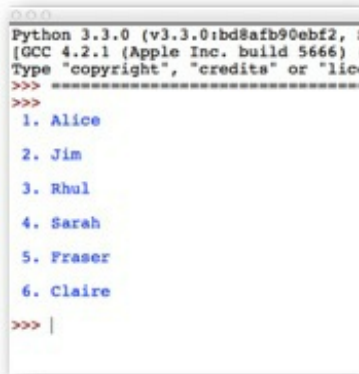
### Task 2

You must set the encoding parameter when opening a file. Identify the encoding method you should use and in the space provided explain why:

Encoding	Explanation
UTF-8	Its not platform specific so therefore no errors will arise when switching between platforms.

# Reading from a file

The screenshot below shows the result of reading in the names of students from a file and then printing them to the screen.



```
Python 3.3.0 (v3.3.0:bd8afb90ebf2, 2014-02-26)
[GCC 4.2.1 (Apple Inc. build 5666)]
Type "copyright", "credits" or "license()" for more
>>> 
1. Alice
2. Jim
3. Rhul
4. Sarah
5. Fraser
6. Claire
>>> |
```

The code for printing the students to the screen is shown below:

```
for index, student in enumerate(student_file):
    print("{0:>2}. {1}".format(index+1, student))
```

## Task 3

For the above code, explain what each of the following sections of code do:

Section	Explanation
<code>i index</code>	Is a counter so place values can be added to the print statement.
<code>{0:&gt;2}</code>	Right aligns it with a width of 2 .

## Task 4

In the above screenshot there are gaps between each student in the list. It should look like the screenshot below.

```
Python 3.3.0 (v3.3.0)
[GCC 4.2.1 (Apple Inc
Type "copyright", "cr
>>> =====
1. Alice
2. Jim
3. Rahul
4. Sarah
5. Fraser
6. Claire
>>> |
```

**Attempt** to explain why there are gaps between each student and then suggest how the above code could be improved to remove them.

- The print statement automatically adds a new line, therefore with the added line in the code plus the prints new line it creates a gap of a line.

## Exception Handling

Exception Handling is used to deal with **known errors** in a more elegant manor than crashing the program. Take a look at the following code:

```
try:
    score = int(input("Please enter your score: "))
except:
    print("Please enter an integer value only")
print(Your score was {0}".format(score))
```

## Task 5

**Identify** and **explain** (without running the code) all of the errors in this code

Error	Explanation
EOF	Missing " in last line
EOF	Missing bracket in second line.
Final print	Needs to be indented.
Value error	needs to be specified.

