

COMP41680 Lab 4

Writing Python Scripts

Complete the three tasks below by writing Python scripts in a text editor and running the scripts from the terminal/command line. The required input files are available in *lab04-data.zip* on the module Moodle page.

1. Write a Python script *overlap.py* which reads in two text files containing numbers (one number per line), and finds the numbers which are overlapping (i.e. the intersection of numbers present in both files). The two input files should be specified as command line arguments.

Example usage:

```
> python overlap.py numbers1.txt numbers2.txt
Overlap is set([2, 4, 5, 6, 9, 15, 16, 19, 26])
```

2. Write a Python script *select.py* which reads in a text file, line by line, and only displays the specified lines. The input filename and one or more line numbers should be specified as command line arguments.

Example usage:

```
> python select.py names.txt 1 3 12
Lucas
Abigail
Michael

> python select.py names.txt 6 14
Lily
Zoe
```

3. Modify the script *select.py* to add exception handling for the cases where: (1) the specified text file does not exist, (2) an invalid number is specified.

Example usage:

```
> python select.py missing.txt 1 3 10 14
Unable to read from file: [Errno 2] No such file or directory:
'missing.txt'

> python select.py names.txt 4 9 a
Invalid line number specified: invalid literal for int() with
base 10: 'a'
```