

CS 115 - Introduction to Programming in Python

Lab Guide 04

Lab Objectives: Files and Modules

1. Download the file, `education.txt` from Moodle. This file contains the columns: country name, region, male education rate (`m_ed`), and female education rate (`f_ed`). The columns in the file are tab delimited (`'\t'`)
2. Your program will do the following:
 - a. Define a module, `ed_functions.py` that contains 3 functions:
 - b. `get_levels`: takes a string containing the country data, and returns the float `m_ed` and `f_ed`.
 - c. `same_education`: takes two float education values, and returns `True` if their rounded values are the same, `False` if different.
 - d. `get_country_region` : takes a string containing the country data and returns the country and the region in the string. You should return two separate string values.
 - e. In a separate script, `Lab04_yourName.py` write a program that opens the file `education.txt` and inputs a tuple of two character strings from the user. You should then search the file using the functions defined in the module above, and to a new file, output all countries whose female and male education rates are almost the same (rounded values are the same) and whose first letter is between the starting and ending characters, inclusive. The name of the output file must be `<char1>to<char2>_equal_ed.txt`.

Sample Run:

Enter start and end characters:CM

CtoM_equal_ed.txt

```
Cape.Verde Africa
El.Salvador      America
Kuwait          Asia
Indonesia       Asia
Dominican.Republic America
Hong.Kong       Asia
Jamaica         America
Chile America
Greece          Europe
Croatia         Europe
Georgia        Asia
```