**utils.py [Task 0]**

read\_file:

* Can return more than one data structure
* Use dictionaries???
* This function MUST run flawlessly!!!

filter\_region:

* ‘data’ parameter can be tuple
* Presentation includes docstrings
* 3-digit character code = key, and country = value??? // hint
* Dictionaries encouraged but not required

**ranking.py [Task 1]**

sorted\_ranking\_data:

* create CountryValue in utils.py?
* the years can be stored in a list when reading file

**growth.py [Task 2]**

basically copy-paste task1

**drop.py [Task 3]**

Range (data structure):

* if value for a year is skipped, store the next one
* if only one year of data present, year1 = year2, but throw that out because only countries with at least two are allowed rip

**factors.py [Task 4]**

* use turtle to draw graphs
* only main will be run, all functions are to be designed by students
* graphs should match, more or less
* use turtle function ‘goto()’
* use other tasks to draw graphs
* read through how to handle missing data
* label axes!!! (turtle.write())

**Submission**

* File name should be your username.zip = hxt1965.zip
* Do not include rit\_lib or test files