CSCI 611 – Python Lab#1

PYTHON Set-up & Tutorial

GOALS:

- Setup your Python development environment (Python 3.8)
- Familiarize with Python basics
- Write your first 2 Python programs

TASKS:

1. Choose your Python development environment (e.g., download the **Anaconda** distribution per the *Anaconda Environment* slide-deck, or access on **`ecc-linux`**, or **Google Colaboratory**, or **repl.it)**.
2. Work through the SciPy Lecture Notes, up through Section 1.2.4.9.
3. Complete Exercise 1.2.4.10.**a** – *Fibonacci sequence*, and Exercise 1.2.4.10.**b** – *Quicksort* (recursive).
    a. The user should enter a positive integer value for `n` at runtime. For example, n set to 10 would return the sequence: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34. Your program should prompt for input, and return a friendly error message if the user enters a non-positive integer.
    b. You may hardcode a list of arbitrary numbers into your program. Your program must then implement a recursive Quicksort algorithm to sort the list of numbers into ascending order. (see .pdf example).

DELIVERABLES:

- ***xy***`Lab1a.py` - Python *Fibonacci* source file, where **`xy`** are your initials.
- ***xy***`Lab1b.py` - Python *QuickSort* source file, where **`xy`** are your initials.
- Your code must include general header documentation with:
    - your name, course #, date
    - indication of sources/guidance/assistance you received
    - environment developed & tested in
- Screenshot A of *Fibonacci* runtime test (jpg), with user setting `n` to any value between 20-30.
- Screenshot B of *Quicksort* runtime test (jpg), with user random ordered list with no less than 10 arbitrary values.
- SUBMIT these four files on Blackboard, under **Python Lab#1** submission link.