Task 1 – Resources

This includes links of video tutorials for basics of Python, Image Processing and Socket Programming.

A. Python:

Numbers: https://docs.python.org/3/tutorial/introduction.html#numbers

Data-types: https://realpython.com/python-data-types/

Strings: https://docs.python.org/3/tutorial/introduction.html#strings

Lists: https://docs.python.org/3/tutorial/introduction.html#lists

Control Flow Tools: https://docs.python.org/3/tutorial/controlflow.html#more-control-flow-tools

Tuples and Sequences: https://docs.python.org/3/tutorial/datastructures.html#tuples-and-sequences

Dictionaries: https://docs.python.org/3/tutorial/datastructures.html#dictionaries

Looping Techniques: https://docs.python.org/3/tutorial/datastructures.html#looping-techniques

Find out more links here: https://docs.python.org/3/tutorial/#the-python-tutorial

B. Image Processing:

Find out links here: image_processing_basics

(Note: All the sample code examples provided are based on Python 2)

C. Socket Programming:

1. Python Network Programming:

   YouTube Playlist: Learn about Network Programming using Python. If you are new to network programming we suggest you to start with this playlist which covers basics of network programming and it also covers several important Python's Socket APIs.

2. Socket Programming Basics in C:

   YouTube Playlist: This playlist will teach you some of the commonly used POSIX C Socket APIs.

3. Beej's Guide to Network Programming Using Internet Sockets:

    a. Course Website

    b. PDF of course website: If you want to have a deeper understanding about Network Programming concepts go through this 100 page long book. This book uses C Socket APIs.

4. Stanford's Introduction to Computer Networking:

    MOOC's URL: This is a self-paced introductory course on computer networking, specifically the Internet. It focuses on explaining how the Internet works, ranging from how bits are modulated on wires and in wireless to application-level protocols like BitTorrent and HTTP. It also explains the principles of how to design networks and network protocols. Students gain experience reading and understanding RFCs (Internet protocol specifications) as statements of what a system should do. The course grounds many of the concepts in current practice and recent developments, such as net neutrality and DNS security.

... Best Wishes ! ...