

COMP-311 Computer Networks – Section B

Programming Assignment # 1

Due Date: **20th May 2022**

Write a client/server application using Python to implement the following number conversions. You have to write number conversion functions yourself:

1. **A Binary number to a Decimal number** and a **Decimal number to a Binary**:
2. **A Binary number to an Octal number** and an **Octal number to a Binary**:
3. **A Binary number to a Hexa-decimal number** and a **Hexa-decimal number to a Binary**:
 - a) The client gives an input (binary, octal, decimal, or hexadecimal number) and sends this number to the server through TCP socket.
 - b) The server prompts for the conversion and the client needs to select the option to convert into the requested number.
 - c) The server converts the received number into an equivalent requested number and sends it back to the client.
 - d) The client then displays the result to the user. And asks users if they want to send another number for conversion. If Yes, repeat all steps else terminate.
 - e) Make sure you are applying the relevant validation checks.
 - f) Code should be well documented.

You can form a group of two students to implement this assignment.