Class Activity #3

Part 1: Unix

1. Briefly describe how r/w/x permissions work in UNIX.

2. (U 5-4) Create three directories called courses, sample, and personal. Set access permissions for the sample directory so that you have all three privileges, users in your group have read access only, and other users of your system have no access privileges. What commands did you use? Include a directory listing that shows the permissions of the three directories.

3. Display a list of processes that you are running. Pick 2 of the processes and describe their attributes.

Part 2:

4. Create a file called activity3.c (and its associated header file) that contains the following 2 C functions
   a. Write a recursive function `gcd(x,y)` defined as:
      gcd(x,y) =
      x if y=0
      gcd(y, remainder(x,y) if y>0

   b. 3-2 (modified): Write a function `escape(s)` that prints string s with newlines & tabs converted to "\n" and "\t". You should not modify the string s - print the new string from inside the function. Example output:
      original string: `This	line and
      thatline`
      escape(string): `This\tline\tand\nthat\tline\n`

5. Create a C program called *yourfirstandlastname*.c that calls the two functions above at least twice each with different input.

Submission information:

1. Create a single, neatly formatted document (.txt, .doc, or .pdf) with the following:
   a. Include sample output from all commands & programs.
   b. Code listings for Part 2, **one file per page**. Each file should have a comment at the top describing the purpose of that file.
2. You may submit a hard copy or via Canvas.