UCSCx
EMBD-X413
Fall 2017

Assignment #3 – Web Server Setup & Test Page (20pts)

Overview:
You will be moving your assignment #1 into a web server on your Pi for access via a browser. To accomplish this, you will need to first install web server software and setup the web server user to access your Pi's GPIO. You will be downloading and installing Apache (Apache version 2) on your Pi. Once installed, you will have to configure the web server's user to access your Pi's GPIO. Additionally, you will be configuring and enabling your web server's CGI module for a future assignment.

Requirements:
1. Copy your Assignment #1's HTML file into your Pi.
   1.1. You can use scp (pscp from the Putty package).
   1.2. Example: pscp -r c:\users\yourusername\desktop pi@192.168.1.2:/home/pi/
2. Rename your copy of Assignment1 to Assignment 3.
   2.1. Save Python file as: assignment3-<your initials>.html.
   2.2. Rename any other supporting files by using "assignment3".
3. Web page must be dynamically created after running your python program as a HTML file.
   3.1. Your web page must have the following file name format: assignment<number>-<your initials>
   3.2. Your web page must have the .html or .htm extension. Example: assignment1-gg.html
4. Web page must contain at least 3 sensor outputs.
   4.1. Temperature, Humidity, and Pressure
5. Sensor data must be tabulated for readability (assignment #1).
   5.1. Use a side or top header column to explain your sensor data.
6. Web page must be readable using a standard popular web browser. Please double check your work BEFORE turning it in! This includes extra credit design elements.

Procedure:
First, write down your Pi's IP address. Install and configure your webserver software. Follow the instructions in the separate web server installation handout to install and configure your web server. Copy your assignment #1 into your Pi user's home directory. Rename your assignment #1 to Assignment #3. Copy your assignment #3 into your web server's website directory - /var/www/html/. Test your assignment #3 by using a separate computer's browser. You can test your page by typing in: http://<your Pi's IP address>/assignment3-<your initials>.html.

Grading:
Grading for this assignment will be based on meeting the basic requirements. You will turn in your HTML source code file by emailing it to me using the UCSC portal system.

Extra Credit:
For this assignment, you can use JavaScript AND/OR Cascading Style Sheets (aka CSS) to get extra credit. I will add 1-5 points extra for your creative efforts. To get the extra credit points, be sure to include your JavaScript and CSS files. Use the same file naming convention as your last assignments. Turn in all external additional files along with your HTML file to get your extra credit.