Assignment K

In this assignment, you will design and build a microseconds response driver as RPi kernel module. You may want to follow the following approach.

Make sure the kernel sources and headers are installed on RPi host.

We will help you with this task. We will also provide a sample driver code `dht11_example.c` which will be posted soon. However, we have not tested this driver to make sure that it works.

Use this posted driver as an example to develop your own driver.

Your driver should be based on the code you developed for the temperature sensor assignment, which at that time was not written as a kernel module.

Note, you cannot use application-space libraries in your driver code.

Once you have developed the driver, you should compile the code using a makefile you will develop for this task.

After compilation and debugging, you should insert the driver as a module in the kernel using kernel utility commands.

Test the new driver that it works on the same setup you used during the temperature sensor assignment.

Compare the kernel module method against the previous method in terms of response time, results and accuracy.