Homework Assignment #1

Due: Monday, February 9th 11PM

Description
Create a Linux timer to run a function called `Mem_dist` every 30 seconds. The function accepts two parameters:

1. Count of number times the routine runs. Starts with 1 and increments with each run.
2. Array of numbers

The function returns the current number of items on the array. Obviously, you need to create this function.

The first time the function runs, it initializes the array with twelve values. The value is randomly determined. You can use whatever random number generator you wish.

After the first time, the function alternates among three different processes:

1. Starting with the second pass, it adds another item to the array.
2. Starting with the third pass, it sorts the items in ascending order.
3. Starting with the fourth pass, it removes a randomly chosen item from the array.

Your Linux kernel should create the timer during the initialization process. The timed function `Mem_dist` should run regardless of anything else running on the operating system. Stop the timed function after ten minutes.

Turn in

1. Your entire code, both the function and the Linux kernel that creates the timer.
2. The output from a sample run. The run must last at least four minutes.

Send your files to csi500@cs.albany.edu.