Assignment 4a

1. Implement chef process as given in the assignment 4 description. Everytime a resource is prepared by the chef (when semaphore is signalled for the particular resource) write to a log file what item was prepared, and at what time and by what thread. (You may give the time in nanoseconds or microseconds relative to the time the chef process has started).

   Smaple output

Sl. No:	Thread number	Item	Time (micorseconds)
1	2	Maach	20
2	2	Dal	22
3	3	Dal	24

2. Add sleep to individual threads such that the resource generation doesn't take place as fast as in case 1, as the threads will not be active for some time interval after each run for the thread . Submit separate log
3. Try to add a random number generator with seed, which will determine the sleep for each thread in the beginning. Once a particular random number is decided for a thread, it will remain the same throughout the run of the program.

Optional (Not for evaluation)

4. implement a dummyProcess, which has 3 threads (you may keep an additional thread to do other coordinating activites for these threads). Each thread will catch whenever a specific resource is prepared (through wait operation for the resource semaphore) . The dummy process should also add entries to the log such that it logs the thread number, item and and time in the same log file.

5. The processes instead of updating in the file, should update the entries in a shared memory. The fourth thread in the dummyProcess should wait for user input, and when user types 'y' should generate file with the contents of shared memory and then clear the shared memory. It should also do the same operation if the shared memory becomes full