WEEK THREE UPDATE
5G TESTBED PROJECT

NADIPINENI HEMANTH KUMAR

4th June, 2020

READING ASSIGNMENT

1. Multi-threading - Completed

2. Locks - Completed

3. Timers - Completed

4. Alarms - Completed

5. Communication between threads - Completed

6. Synchronization - Completed

1. Program that triggers a message after every 10ms

```c
#include <stdio.h>
#include <time.h>
void delay(int number_of_seconds)
{
        int milli_seconds = 1000 * number_of_seconds;
        clock_t start_time = clock();
        while (clock() < start_time + milli_seconds)     ;
}
int main()
{
        int i;
        for (i = 0; i < 1000; i++) {
                delay(1/100);
                printf("10 milli-seconds have passed\n");
        }
        return 0;
}
```

2. Spawn a new thread from the main process and the thread should generate an IP Packet every 10ms

```c
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
#include <unistd.h>
#include <pthread.h>
void *Thread(void *vargp)
{
    sleep(1/100);
    printf("Creating thread every 10ms \n");
    return NULL;
}

void delay(int number_of_seconds)
{
        int milli_seconds = 1000 * number_of_seconds;
        clock_t start_time = clock();
        while (clock() < start_time + milli_seconds)     ;
}
int main()
{
        int i;
        pthread_t thread_id;
        for (i = 0; i < 1000; i++) {
                delay(1/100);
                printf("Awake\n");
            pthread_create(&thread_id, NULL, Thread, NULL);
            pthread_join(thread_id, NULL);
            printf("Slept\n");

        }

         return 0;

}
```