

## **LAB 03**

**Course: CT-353-Operating Systems**

**Department: BCIT (Specialisation in Data Science)**

**Instructor's Name: Muhammad Muhashir Khan**

**Student Name: Maryam Ashraff (DT-22050)**



## THREADS

```
#include <stdio.h>
#include <stdlib.h>
#include <pthread.h>

void *print_message_function(void *ptr);

int main() {
    pthread_t thread1, thread2;
    char *message1 = "Thread 1";
    char *message2 = "Thread 2";
    int iret1, iret2;

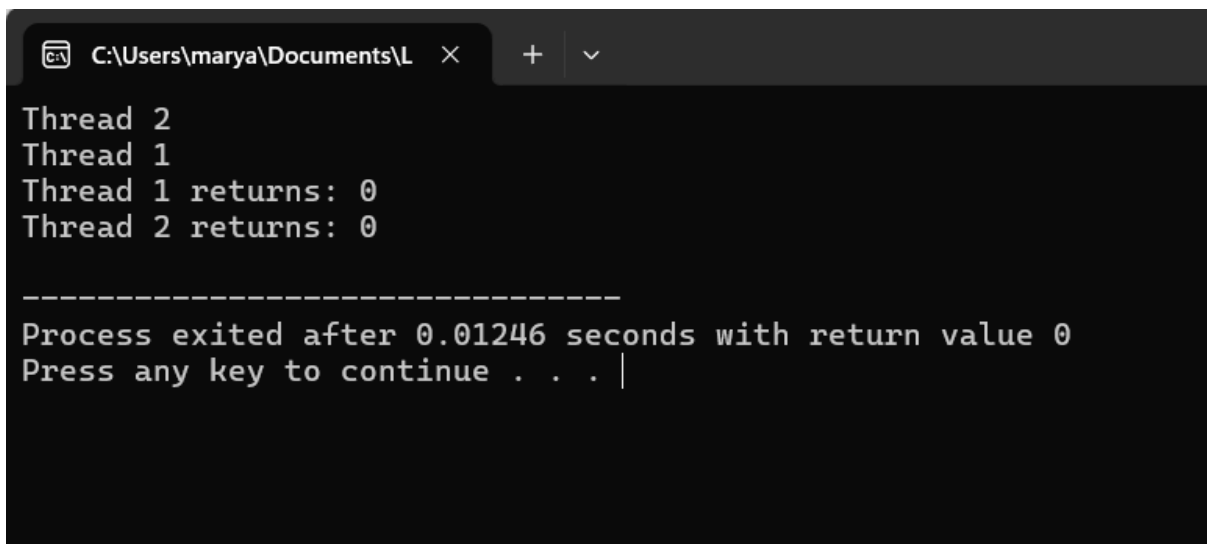
    /* Create independent threads each of which will execute function */
    iret1 = pthread_create(&thread1, NULL, print_message_function, (void*) message1);
    iret2 = pthread_create(&thread2, NULL, print_message_function, (void*) message2);

    /* Wait till threads complete before main continues. Unless we */
    /* wait we run the risk of executing an exit which will terminate */
    /* the process and all threads before the threads have completed. */
    pthread_join(thread1, NULL);
    pthread_join(thread2, NULL);

    printf("Thread 1 returns: %d\n", iret1);
    printf("Thread 2 returns: %d\n", iret2);

    exit(0);
}

void *print_message_function(void *ptr) {
    char *message;
    message = (char *) ptr;
    printf("%s\n", message);
    return NULL;
}
```



```
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Thread 2
Thread 1
Thread 1 returns: 0
Thread 2 returns: 0

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Process exited after 0.01246 seconds with return value 0
Press any key to continue . . . |
```