Shayan
DT-22037

OS LAB 03

Question 1: Implement the above code and paste the screen shot of the output.

Solution:

```c
#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;

    iret1 = pthread_create(&thread1, NULL, print_message_function, (void *)message1);
    iret2 = pthread_create(&thread2, NULL, print_message_function, (void *)message2);

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

```
Thread 1
Thread 2
Thread 1 returns: 0
Thread 2 returns: 0
PS C:\Users\DELL\Desktop\OS>
```

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Question 2: Describe the following line of code:

iret1 = pthread_create(&thread1, NULL, print_message_function, (void*) message1);

Solution:

This line **creates a new thread (thread1)** that executes the print_message_function() with message1 as its argument. The return value iret1 indicates whether the thread was successfully created.