

## 1) Implement the above code and paste the screen shot of the output.

```
#include <stdio.h>

#include <stdlib.h>

#include <pthread.h>

void *print_message(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,(void*)message1);

    iret2= pthread_create(&thread2,NULL,print_message,(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(void *ptr){

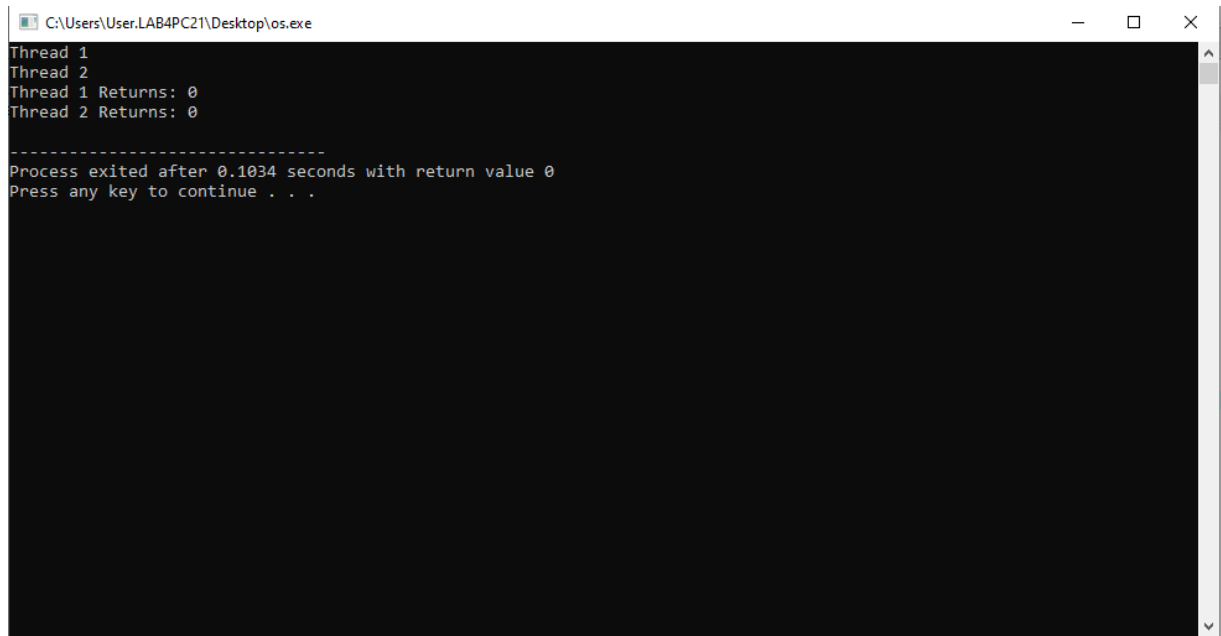
    char* message;

    message = (char*)ptr;


    printf("%s\n",message);

}
```

## **OUTPUT:**



```
C:\Users\User.LAB4PC21\Desktop\os.exe
Thread 1
Thread 2
Thread 1 Returns: 0
Thread 2 Returns: 0
-----
Process exited after 0.1034 seconds with return value 0
Press any key to continue . . .
```

## **2) Describe the following line of code:**

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

The line of code `iret1 = pthread_create( &thread1, NULL, print_message_function, (void*) message1);` creates a new thread in a C program using the POSIX Threads (pthreads) library. It initializes a thread identified by `thread1` and sets it to execute the function `print_message_function`, passing `message1` (cast to a `void*`) as an argument. The second argument is `NULL`, indicating that default thread attributes are used. The return value of `pthread_create` is stored in `iret1` to check for successful thread creation (a return value of 0 indicates success).