National Textile University

Department of Computer Science

Name

Gulam Rasool

Reg No:

23-NTU-CS-FL-1159

Semester:

5th
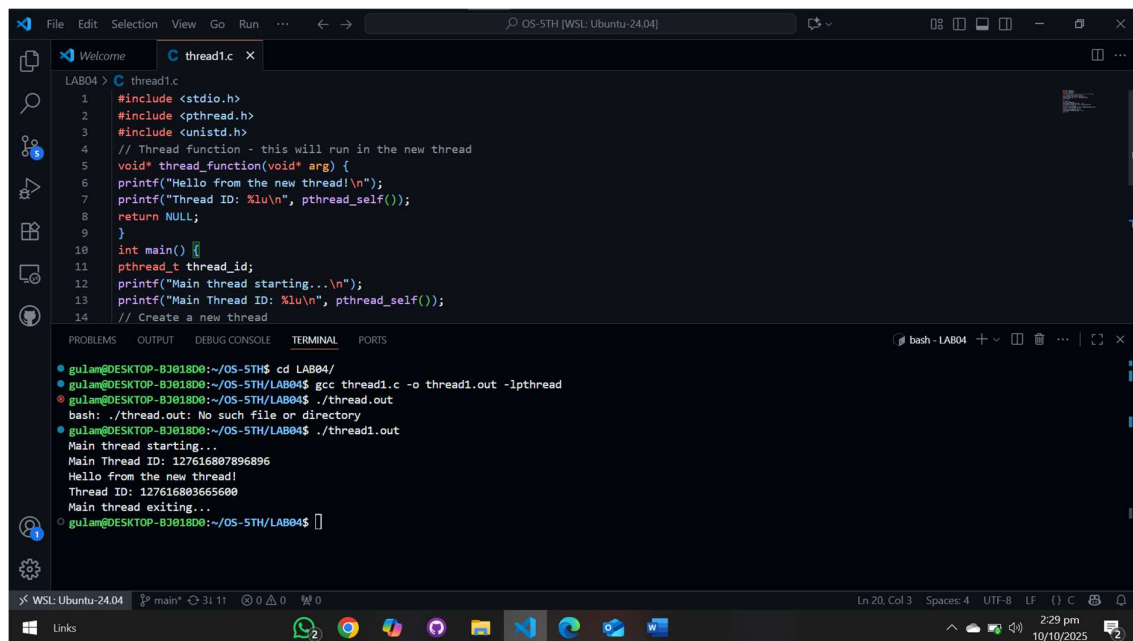
Lab:

04-Class_Task

Submitted to:

Sir Nasir Mehmood

LAB04-CLASS_TASK

3. C Programs with Threads

Program 1: Creating a Simple Thread

Program 2: Passing Arguments to Threads


```c
#include <stdio.h>
#include <pthread.h>
void* print_number(void* arg) {
    // We know that we've passed an integer pointer
    int num = *(int*)arg; // Cast void* back to int*
    printf("Thread received number: %d\n", num);
    printf("Square: %d\n", num * num);
    return NULL;
}
int main() {
    pthread_t thread_id;
    int number = 42;
    printf("Creating thread with argument: %d\n", number);
    // Pass address of 'number' to thread
    pthread_create(&thread_id, NULL, print_number, &number);
    pthread_join(thread_id, NULL);
    printf("Main thread done.\n");
    return 0;
}
```

```
gulam@DESKTOP-BJ018D0:~/OS-5TH/LAB04$ ./thread2.out
Creating thread with argument: 42
Thread received number: 42
Square: 1764
Main thread done.
gulam@DESKTOP-BJ018D0:~/OS-5TH/LAB04$
```