

# COL331 Operating System : Assignment - 4

Param Khakhar - 2018CS10362

24 March 2021

## Introduction

The following is a writeup for the Assignment-4, Operating System (COL331). There are two sections corresponding to part A and part B, and each section contains the answers of the respective tasks in the path.

## Part A

### Task - 1: Output of t1

After printing "Executing t1", the program terminates with the string printed "Execution of 't1' complete".

### Task - 2: MACROS Description

There are generic MACROS defined depending on the number of arguments which are called in the original syscall depending on the number of arguments. SYSCALL0 only takes the syscall number as the argument, SYSCALL1 takes the syscall number along with other argument, SYSCALL2 takes syscall number and two other arguments, and SYSCALL3 takes syscall number and three other arguments. All the arguments are pushed onto the stack with the syscall number at the top, along with the other arguments from top to bottom, in the same order in which the syscall is called.

### Task - 3: Waiting Function

The function

```
int process_wait (tid_t child_tid);
```

is where the kernel waits for a process to terminate. On using an infinite loop in the function the following message is printed:

”System calls not implemented”

#### **Task - 4:**