



Indian Institute of Information Technology, Vadodara  
International Campus Diu  
**Operating Systems Lab**  
**( CS363 )**  
Assignment 3 (System Calls using C)

Date: 23/09/2024

Submit by: 23/09/2024

1. Write a C program to create the process using fork() and display the parent and child process ID using getpid() and getppid() system calls, respectively.
2. Write a C program to demonstrate the execl() system call for
  1. display the content of directory(command: ls)
  2. display the process tree (command: pstree).
3. Write a C program to demonstrate the zombie process creation and prevention using wait and sleep system calls.
4. Write a C program to create the multiple processes using fork() and display the process IDs and their parent process IDs in hierarchy.
5. Write a C program to create a parent-child relationship between two processes.  
The child process prints:  
A) Its own PID  
B) It's parent PID

The parent process prints:

C) It's own PID

D) It's child PID

Make use of wait() to print the above statements in order of

C A B D

Other than these you can print any other statements if require.

**Best wishes**