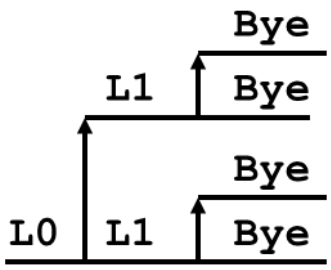
OS: LAB ASSIGNMENT -1

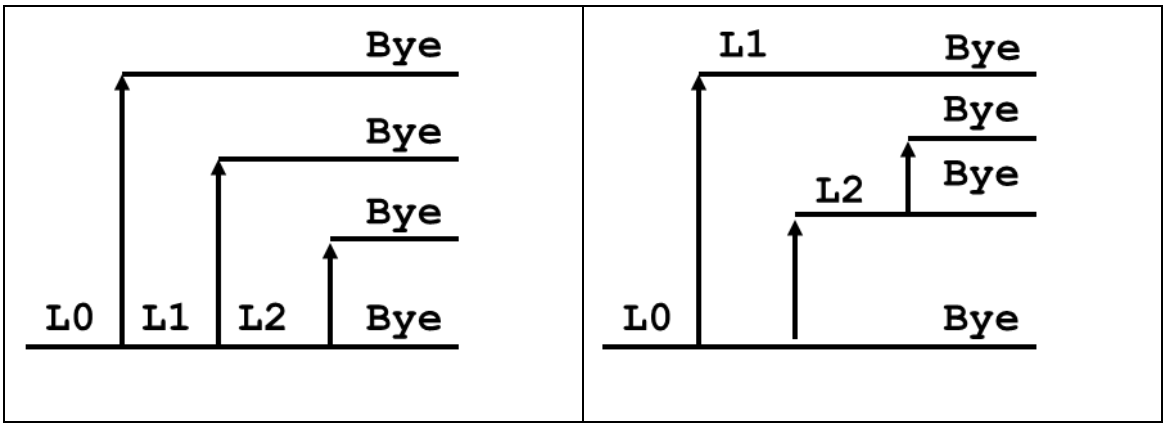
Process

1. The Sample example below has been explained during theory class.




```
void fork2()
{
    printf("L0\n");
    fork();
    printf("L1\n");
    fork();
    printf("Bye\n");
}
```

Now create 2 programs to depict the below diagrams and print L0, L1, L2 and Bye appropriately and observe the behaviour of the parent and child processes



2. Write a C program that initializes a global integer to 2 and then creates a child process. Print the process id and value of the integer in the parent process and child process. Let the child process change of the integer to 9 and exit. The parent process has to wait for the child process to exit. After the child process exits, print the value of the integer in the parent process. Observe and understand the outputs. (Suggested System calls – fork, wait, getpid)

3. Write a C program to create a zombie process and print to show the process is in zombie [defunct] state. (Suggested System calls – fork, sleep, ps)

4. Write a C program to create an orphan process and print to show the said process is an orphan. (Suggested System calls – fork, sleep, ps, getppid)

5. Write a C program to print all the processes running on the linux machine currently with the full format listing. (Hint: Check “man ps”)

(**Note**: Practice the example programs discussed and given during the theory class)