

I Year II Semester
Code: 17CS211

L P C
0 3 2

CSELAB-2

- Study of Unix/Linux general purpose utility command list man, who, cat, cd, cp, ps, ls, mv, rm, mkdir, rmdir, echo, more, date, time, kill, history, chmod, chown, finger, pwd, cal, logout, shutdown.
- Study of vi editor.
- Study of Bashshell, Bournesshell and Cshell in Unix/Linux operating system.
- Study of Unix/Linux file system (tree structure).
- Study of .bashrc, /etc/bashrc and Environment variables.
- Write a C program that makes a copy of a file using standard I/O, and system calls

- Write a C program to emulate the UNIX ls-l command.

- Write a C program that illustrates how to execute two commands concurrently with a command pipe.
- Ex: -ls -l |sort

- Write a C program that illustrates two processes communicating using shared memory

- Write a C program to simulate producer and consumer problem using semaphores
- Write C program to create a thread using threads library and let it run its function.
- Write a C program to illustrate concurrent execution of threads using pthreads library. Understanding and using of commands like if config, netstat, ping, arp, telnet, ftp, finger, Trace route, who is etc. Usage of elementary socket system calls (socket(), bind(), listen(), accept(), connect(), send(), recv(), send to(), recvfrom()).
- Implementation of Connection oriented concurrent service (TCP).
- Implementation of Connection less Iterative time service (UDP).
- Implementation of Select system call.
- Implementation of getsockopt(), setsockopt() system calls.
- Implementation of getpeername() system call.
- Implementation of remote command execution using socket system calls.