

# Operating Systems Lab

## Assignment # 01

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**A note of warning:** Start work on assignments as soon as they are given. Do not underestimate the demanding nature of this course. Expect the system to crash the night before your program is due. Aim to have it done the day before.

Submit the assignment on [slate](#). Do not email me assignments after due date. It will not be accepted in any case. **Students are required to submit actual content written in MS word or Pdf. Hand written/ Scanned assignments will not be accepted.**

Q1. Provide clear, concise and detailed description of the following Header files.

- i. `#include<stdio.h>`
- ii. `#include<stdlib.h>`
- iii. `#include<unistd.h>`
- iv. `#include<sys/types.h>`
- v. `#include<sys/dir.h>`
- vi. `#include<fcntl.h>`
- vii. `#include<sys/types.h>`
- viii. `#include<sys/stat.h>`

Q2. Use the following system calls in a sample C program and clarify the difference

- i. `clone()`
- ii. `fork()`
- iii. `kill()`
- iv. `execv()`
- v. `getuid()`
- vi. `geteuid()`
- vii. `getgid()`
- viii. `getegid()`
- ix. `lseek()`
- x. `stat()`
- xi. `fstat()`
- xii. `access()`
- xiii. `chmod()`
- xiv. `chown()`
- xv. `chdir()`

Q3. Provide the description, format and screen shots of the following commands.

chgrp	grep	file	awk	cmp
find	diff	comm	cut	expand
uniq	vi	vim	spell	finger
last	Log out	ps	bg	execvp
alias	unalias	xterm	xclock	dclock
fgrep	spell	ln	apropos	[ ]
fs la	control z	fdisk	ping	pgrep
aptitude	dirname	ifconfig	killall	mount
shutdown	sleep	users	umount	most