

# Operating Systems

## Assignment 2

### (10 Points) Review Questions :

- Individual task
- **Due:** 3 Nov. (one night before if you submit by email)

Chapter 2 review questions (Starting at page 94):

No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24.

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### (10 Points) Programming Task:

- Group task, The instructor should review within the lab
- **Due:** 10 Nov. (email submission is not allowed)

Linux OS has a light weight debugger named “strace”. It allows a programmer / user to quickly find out how a program is interacting with the OS. It does this by monitoring system calls and signals.

“strace” Good for when you don't have source code or don't want to be bothered to really go through it. Also, useful for your own code if you don't feel like opening up GDB, but are just interested in understanding external interaction.

### **Requirements:**

a. You are asked to apply “strace” to the executable file resulted from the programming task in [Assignment 1.B](#). As following:

1. “cd” to the folder where “task\_1” executable file **exists**. For example

```
sallam@ubuntu:/$ cd /home/task_1/bin/debug
```

2. Run the “strace” command as following:

```
sallam@ubuntu:~$ strace ./task_1
```

b. Copy the results into a text file, then write a report to list all the system calls appeared in the results with a short description (max two lines) for each system call.