**Lab practical - 1**

**Theory Exercises**

1. We know that an operating system is a program. Explain the main difference between an operating system and other non-operating system programs.

The main difference between operating system and other systems is that the OS is a system software that works as an interface between the user and the hardware while the application software is a program which can only perform one specific task.

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| Operating System | Application software |
| Also responsible for performing process management, task scheduling and hardware device controlling. | Performs a single specified task only. |
| Boots up when the user switches on the system and manages different applications. | Runs only when the user requests to run the application. |

1. The operating system on your computer system shares the processor (assuming there is only one processor) with many other programs. However we understand that at any given moment, the processor can only execute the instructions from one program. Explain how can the operating system and several other programs run on the same processor at the same time.
   * Time slicing for multi-process operations.
   * Interrupt handling
   * Implementation of system calls