CSS-430 : Operating Systems : HW01-Questions

**Assignment Text**

Problems from TENTH edition of Operating System Concepts

* 1.14
* 1.19
* 2.3
* 2.19
* 2.20
* Choose one System from the slides in Lecture One (Eniac, System 360, Multics, Android, etc.) and describe in detail (one paragraph) its importance to the evolution of Operating Systems
* Build and compile a C and C++ application on a Linux system (do not turn in)

1.14

Question: What is the purpose of interrupts? How does an interrupt differ from a trap? Can traps be generated intentionally by a user program? If so, for what purpose?

1.19

Question: Rank the following storage systems from slowest to fastest:

a. Hard-disk drives

b. Registers

c. Optical disk

d. Main memory

e. Nonvolatile memory

f. Magnetic tapes

g. Cache

2.3

Question: What system calls have to be executed by a command interpreter or shell in order to start a new process on a UNIX system?

2.19

Question: What is the main advantage of the microkernel approach to system design? How do user programs and system services interact in a micro-kernel architecture? What are the disadvantages of using the microker-nel approach?

2.20

Question: What are the advantages of using loadable kernel modules?