Operating Systems - Architecture
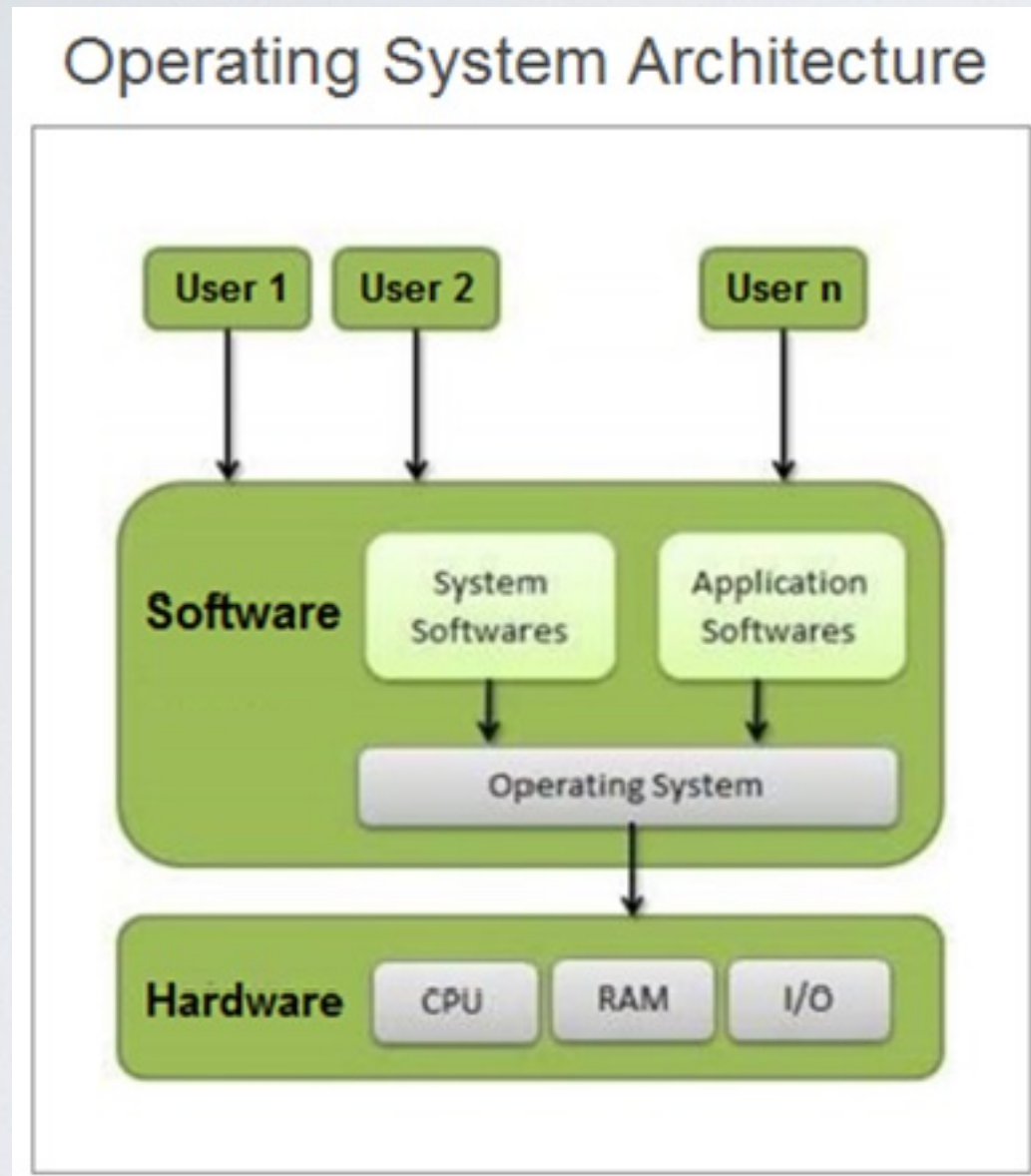
Operating System Architecture

User 1 User 2 ... User n
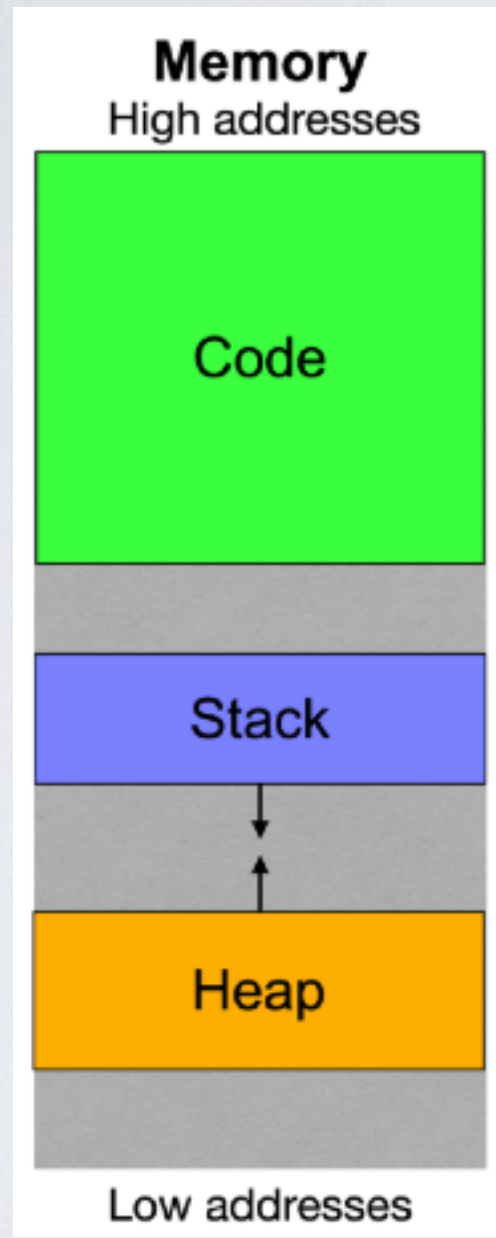
Software
- System Softwares
- Application Softwares

Operating System

Hardware — CPU, RAM, I/O

Learn CS

Ring 3
Ring 2
Ring 1
Ring 0
Kernel
Device drivers
Device drivers
Applications

Least privileged
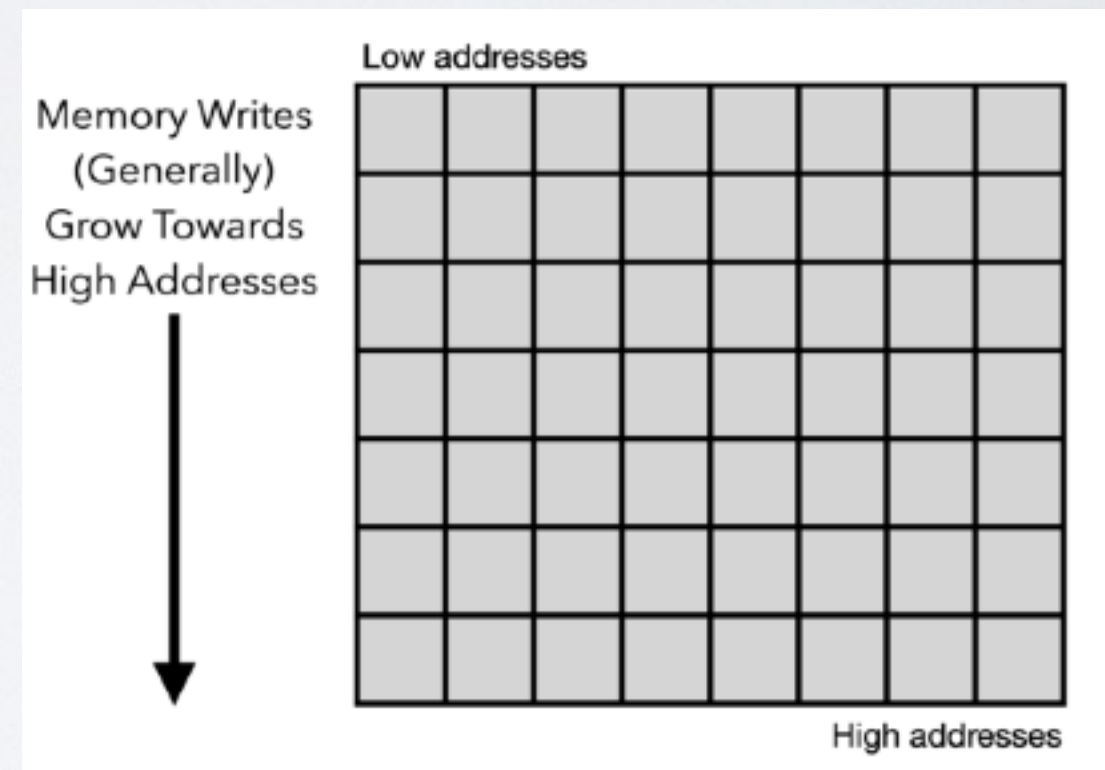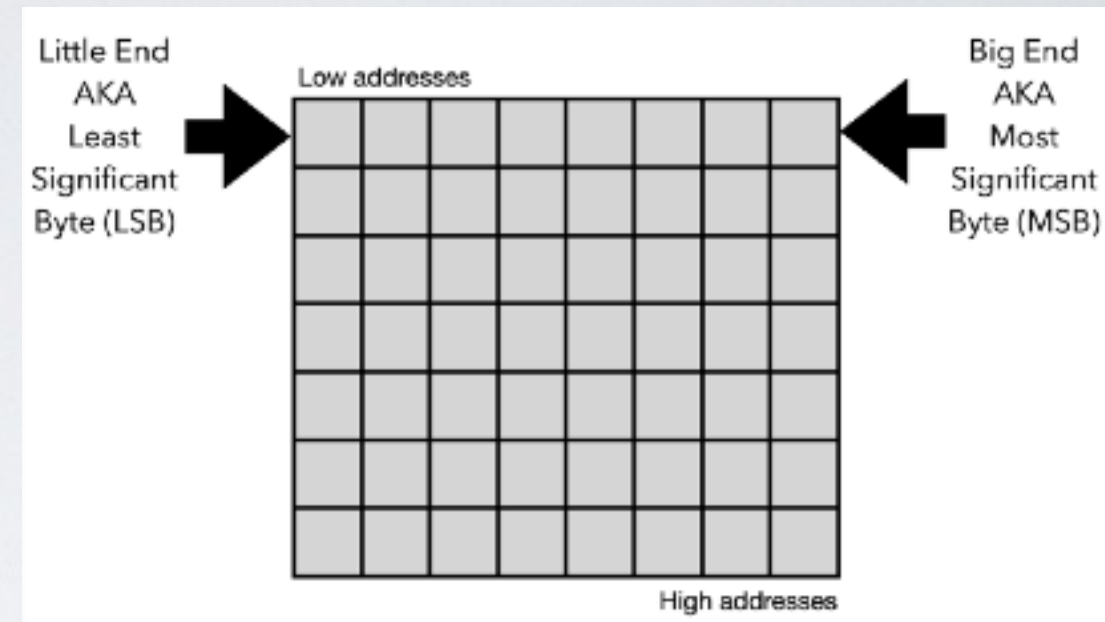
Most privileged
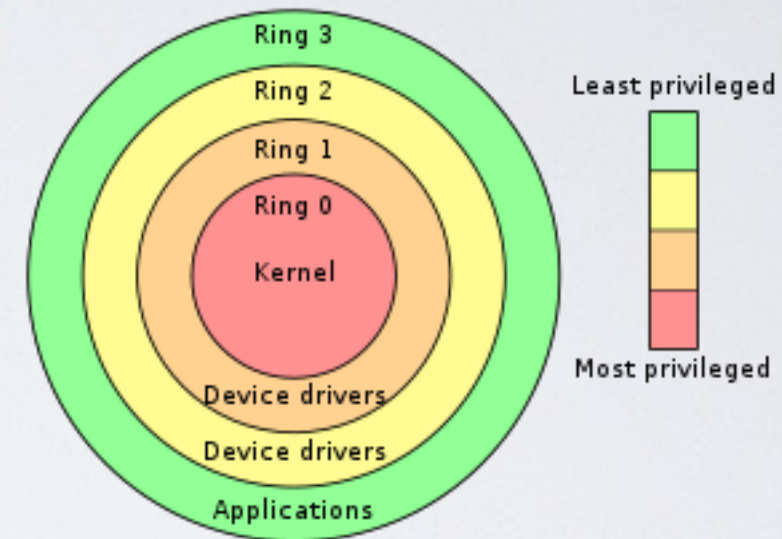
Wikipedia

- Ring 0 - Kernel
- Ring 3 - Userspace
- Ring -X: False rings, e.g Ring -1 Hypervisor

Operating Systems - Program Memory

Stack Memory, Vuln1001, ost2.fyi, 2022

Heap Memory, Vuln1001, ost2.fyi, 2022