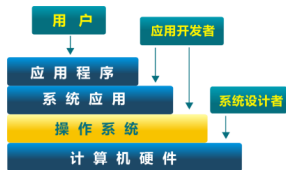# 第 2 讲：OS Architecture & Structure
第一节：Overview
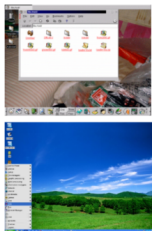
陈渝

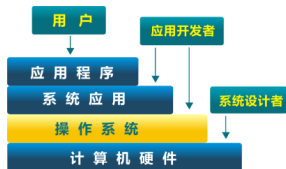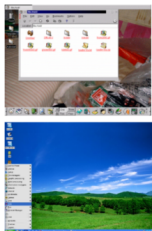清华大学计算机系

yuchen@tsinghua.edu.cn
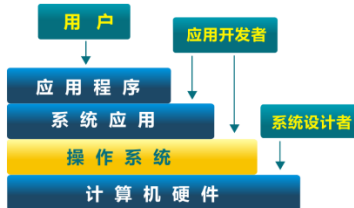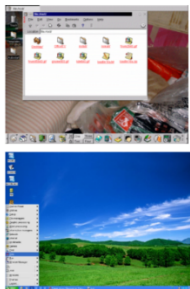
2020 年 2 月 23 日

Why OS Architecture & Structure ?
- for user/developer
  - should be convenient to use, easy to learn, reliable, and fast，etc.
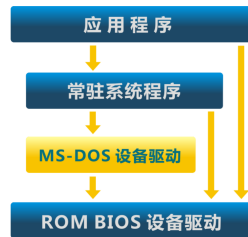
Why OS Architecture & Structure ?
- for user/developer
  - should be convenient to use, easy to learn, reliable, and fast，etc.
- for system architect/developer
  - should be easy to design, implement, and maintain
  - flexible, reliable, error-free, and efficient

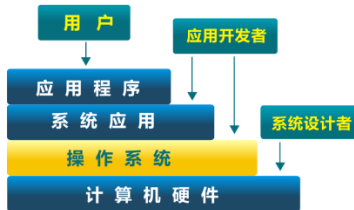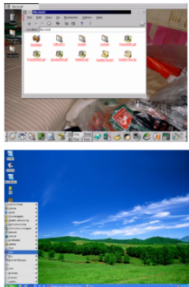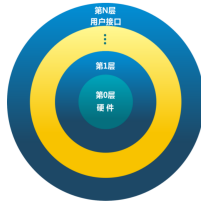OS Structure

- Simple kernel

| 用 户 |
| 应用开发者 |
| 应 用 程 序 |
| 系 统 应 用 |
| 系统设计者 |
| 操 作 系 统 |
| 计 算 机 硬 件 |

| 应 用 程 序 |
| 常 驻 系 统 程 序 |
| MS-DOS 设备驱动 |
| ROM BIOS 设备驱动 |

OS Structure

- Monolithic kernel

OS Structure

- Micro kernel
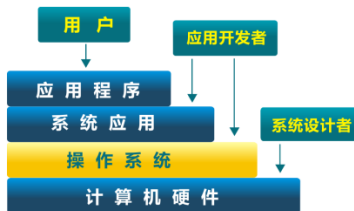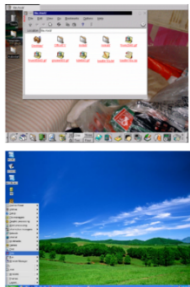
OS Structure
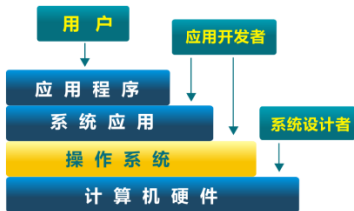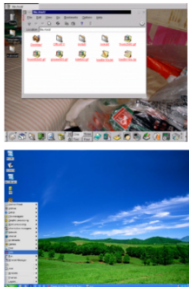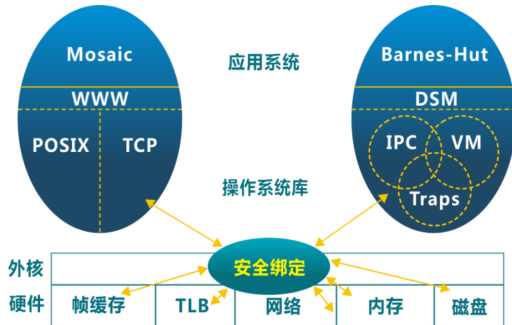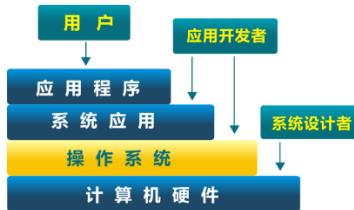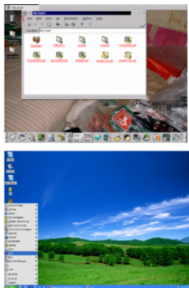
- Exokernel

OS Structure

- VMM, etc...