NCP12209: Operating Systems Laboratory

Introduction to Linux
Module 3

Errol John M. Antonio

Assistant Professor
Computer Engineering Department
University of the East – Manila Campus

University of the East
Manila Campus

Overview

- **Linux** is a Unix-like computer operating system assembled under the model of free and open source software development and distribution.

- The defining component of Linux is the **Linux kernel**, an operating system kernel first released 5 October 1991 by **Linus Torvalds**.

Overview

- Linux was originally developed as a **free operating system** for Intel x86-based personal computers.

- It is a leading operating system on servers and other big iron systems such as mainframe computers and supercomputers more than 90% of today's 500 fastest supercomputers run some variant of Linux, including the 10 fastest.

Linux vs Unix

- **Unix**
  - Dennis Ritchie, Kent Thompson (1970, Bell labs)
  - Based on C
  - 1970
  - Mac OS, Windows - Proprietary
- **Linux**
  - Linus Torvalds (1991, University of Helsinki)
  - 1991
  - Free
  - Fedora, Ubuntu, CentOS, Puppy

Basic Features

- Portable

- Open Source

- Multi-User

- Multiprogramming

- Hierarchical File System

- Shell

- Security

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Advantages

- Low Cost
- Stability
- Performance
- Network Friendliness
- Flexibility
- Compatibility
- Choice
- Fast and Easy Installation

Advantages

- Full Use of Hard Disk

- Multi-Tasking

- Security

- Open Source

Linux Distribution (Operating System) Names

- Linux Distribution (Operating System) Names A few popular names:
  - Redhat Enterprise Linux
  - Fedora Linux
  - Debian Linux
  - Suse Enterprise Linux
  - Ubuntu Linux
  - Kali Linux
  - Puppy Linux

Reference:

Tutorials Point. (n.d.) Python Data Structure.
https://www.tutorialspoint.com/python_data_structure/