

UNIT V – CASE STUDY– SUMMARY



Linux

2

- History of Linux File System was explored
- Design Principles
 - ▣ The goals and design principles kept in mind for the design of Linux OS was detailed
- Process Management
 - ▣ Discussed Process creation and termination, Process context, Scheduling and Synchronization methodologies
- Memory Management
 - ▣ Four memory Zones, buddy- heap algorithm, slab allocation and virtual memory concepts were discussed

Linux

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□ File Systems

- ▣ Ext3 File system
- ▣ Basic file operations
- ▣ Journaling
- ▣ Block allocation

Windows

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- History and design principles were discussed
- Architecture and system components
 - ▣ Kernel objects – Dispatcher objects and control objects
- Scheduling
 - ▣ 32-level priority scheduling
 - ▣ Usage of different scheduling queues
 - ▣ Kernel – trap handling mechanism
- Windows Executive – VM Manager, Object Manager, Process Manager, LPC facility, I/O Manager, Security Reference Manager, Plug-and-Play Manager, Power Manager

Windows

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□ File Systems

- ▣ NTFS Layout, architecture, Master file table, B+ Tree
- ▣ File system recovery and security
- ▣ Fault tolerance
 - Volume set, Mirror Set and bad blocks
- ▣ File system compression

Mobile OS

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- Android architecture

- ▣ Four layers – Linux kernel, Libraries and Android Runtime, Application Framework and Application layer
- ▣ Android Virtual Machine vs Dalvik Virtual Machine

- iOS architecture

- ▣ Four layers – Core OS, Core Services, Media Layer, Cocoa Touch Layer
- ▣ Discussed the pros and cons