

Day - 1

- **Session 1: Understanding the Block Drivers**
 - Understanding a Generic Hard Disk
 - Request Queue Ecosystem
 - Kernel APIs & Data Structures
 - Creating a RAM Block Device
 - Partitioning a Block Device
- **Exercises**
 - Experiments with a RAM-based Block driver
 - Creating Partitions and formatting them
- **Session 2: File System Design & Implementation**
 - Hardware File System & Formatting
 - File System Design & Challenges
 - Virtual File System & its Role
- **Exercises**
 - Designing a custom File System
 - Application to Format the custom File System

Day - 2

- **Session 3: Filesystem Implementation Continue**
 - Kernel File System
 - The 5 Operation Sets
 - Coding for the bunch of System Calls
- **Exercises**
 - Mounting the custom File System
 - Mounting the custom File System
- **Session 4: Filesystem in Action**
 - Modifications, Enhancements, Feature Additions
- **Exercises**
 - Experiments with fundamental File System operations triggered by cd, touch, mkdir, cp, rm,
 - Add the feature of (efficient) renaming of files