

## “Online Training on Linux Drivers KickStarter” by Anil Pugalia

### + **Session 1: System Setup & Introduction**

- Driver Development Environment
- Introduction to Linux Drivers

### + **Session 2: The First Driver**

- Writing, Building & Using the First Driver
- Basic Debugging Techniques

### + **Session 3: Introduction to Character Drivers**

- Registration & the Cleanups
- Linux Device Model & Bus Architectures

### + **Session 4: Character Driver Operations**

- Kernel Data Structures & Headers
- Character Device File Operations

### + **Session 5: Open Discussion**

- Doubt Clarification
- Live Experiments

### + **Session 6: Low-level Accesses**

- Memory Access
- Hardware Access

### + **Session 7: Kernel C Programming**

- Introduction to Kernel Programming
- Concurrency, Timers, ...

### + **Session 8: Wrap Up**

- Discussion & Conclusion
- What Next?

## Hands-On Details

### + **System Setup**

- Readyng your System for Driver Development

### + **The First Driver**

- Writing, Building, Using the First Driver
- Trying out Basic Debugging Techniques

### + **Playing with Character Drivers**

- Registering the Character Driver
- Automatic creation of device file nodes
- Various file operations including read, write, ioctl

### + **Doing Low-level Accesses**

- Accessing the System RAM
- Accessing the MAC ID

### + **Kernel C Programming**

- Implementing a blocking read
- Functionality w/ a Timer

### + **Summing Up**

- Sum Up your learnings into some Character Driver functionality