**Linux Device Driver Basics**

* **C programming**. We should have some in-depth knowledge of C programming is needed, like pointer usage, bit manipulating functions, structure ,function pointers etc.
* **Microprocessor programming**. It is necessary to know how microcomputers work internally: memory addressing, interrupts,bus lining, I/O etc. All of these concepts should be familiar to an assembler programmer.
* **What is Device Driver:**

Its normally a piece of C code that interact with a perticular type of device ( like usb, RS232,LCD,parallal port,keyboard, mouse,ps2 etc), that attach to a computer.

Here for writing a device driver one is not bound to know the presice details of a hardware that is being used.

Also writing a device driver requires an in-depth understanding how the hardwares and softwares worked togather for a perticular device.

Here our discussion is about only Linux device drivers. So we will write the codes for Linux embedded devices(like x86, ARM ) only.

**Some best refference Books**:

# Linux Device Drivers, Third Edition.

# Linux kernel development by Robert Love.

# Essential linux device drivers.

# Requirments for Writing a basic Device Driver or Module:

# 1 🡪Required Ubuntu 14.04 or Fedora 20

# 2🡪Very fundamental concepts on Hardware.

# 3🡪Strong knoledge in C programming .

# 4🡪Expertise with some basics Linux commands

# 5🡪Writing of Makefile

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