ASSIGNMENT 1 :

This assignment will help you to learn about the Linux kernel and grubs. Here you have to install the latest version of kernel to your system. To do that, you need to download the latest kernel source (kernel version **2.6.35.7)** from www.kernel.org (download full source, not the patch). You can get many documents on how to compile the kernel source and install that on your specific linux system. Compile the latest kernel source, and install it to your system. You have to also update your grub.

While doing this assignment, it is expected that you learn different aspects of linux kernel and grub loader. Some of the things (but not limited to) you should learn is as follows;

1. What is linux kernel, and how it works
2. What is your system configuration (you need this to configure your kenel source)
3. While installing kernel, you will come to know about different archieves, such as vmlinux, initrd etc. Find out what are these and how these works.
4. What are the different stages of bootloader.
5. What are grub stages 1, 1.5 and 2.
6. What are the main modules of linux kernel, what are the main processes that should be there to run kernel, what are daemon processes.

You need to do the kernel compilation and installation parts offline. At the time of evaluation, following things will be checked;

1. The updated kernel modules, vmlinux and initrd files are at their proper location.
2. The grub menu is updated
3. You have to boot the system using new kernel, and show that the system is working with updated kernel.

Compile your kernel, and go through the details of these aspects of linux kernel and grub bootloader.

ASSIGNMENT 2:

In this assignment, you will work on a text based mail transfer agent (MTA) such as sendmail. Download sendmail from http://www.sendmail.org/ . Now install and configure it in your system; and try to send a mail from one local system to another using sendmail.

ASSIGNMENT 3:

RPM is a tool that can be used to easily install linux packages in your linux system. Here you have to create a RPM package from source code. Download the source code of winrar for your linux system (http://www.rarlab.com/download.htm) . Now create a RPM package from this source code.