# Linux Advanced Writeup

## 0. Foreword

In order to pass my exams I kinda have to study but its just something I just don’t do.. I’m the type of person who doesn’t care about studying and just likes to do put everything into practical use and that’s what I’ll do for this writeup of Linux Advanced.

In here I’ll write down all commands with screenshots, code and explanations in order for other people and myself to learn from it.

## 1. Introduction

In this course we will go over:

* Docker
* Inodes and linking
* Network management
* Package management
* Memory management
* Disk management
* Scheduling
* Logging
* SSH, scp, VNC

But mostly Docker

## 2. Docker

### 2.1 Docker: What is docker and installation

#### 2.1.1 What is docker?

Docker is an open source framework which makes it possible for an application to be placed in a lightweight moveable container.   
You can easily more this container between platforms as long as the Docker engine is being run on it!

Docker prevents the overheat that results in using multiple virtual machines that need their own OS, which not only spares resources bit applications work much faster due to not requiring a hypervisor!

Docker engine is a tool that works with 3 technologies:

* Namespaces
* Cgroups
* Capabilities

We will see more about this later

A docker container makes use of a kernel so Linux containers can’t work in a docker environment from Windows.

Before 1 physical machine was used for each application:

* This was an Apache server + Nginx server
* This gave problems with libraries and dll-files
* Much of the server resources was never used
* Many apps in the same OS don’t work well
* You couldn’t run Linux and Windows on the same server

## 3. Ubuntu