COP3502 - Spring 2010
Assignment 6
Working with Virtual machines
Due Tuesday, 20th April in class (17H15)

April 6, 2010

1 Objective
In this assignment you will be asked to use your new virtual machine. You will configure your Linux operating system and virtualbox.

2 Requirements
You will need to be able to burn a DVD. If you do not have a DVD burner you will have to schedule an appointment to demo the project. To be able to demo you will have to install and configure the project on a laptop. The assignment is due Tuesday, 20th April in class (17H15).


3 Instructions

3.1 Documentation

Part of your submission will be an instruction manual. You will write down all the actions you took to solve each of the subsections below. You are to write the manual for someone who has limited understanding of a linux operation system. Include any pitfalls or problems you encountered and how you solved them. The more detailed the write up the better I can understand your final solution for the problems below.

3.2 Apache

Install the apache2 web server client for ubuntu. If your server is working and installed you should be able to launch your browser in your virtual machine and go to the link http://localhost/ and see a page that says It works!. Apache has a default directory that it stores its webpages in for Ubuntu: /var/www.

3.3 Apache Extra credit

Configure your webserver so that any registered user can have a directory public_html in their home directory and have the link: http://localhost/~username work.

3.4 Serving your pages

Copy all your webpages from our projects to your new apache server and have them work there.

3.5 External Serving

Configure your virtual machine to be accessible from your host machine (the machine the VB is installed on). This requires you to configure your forwarding ports for your virtual machine. I suggest you read the virtualbox documentation here: http://www.virtualbox.org/wiki/End-user_documentation. You should read section 6.3.1 Configuring port forwarding with NAT. If this is working you should be able to access your virtualbox server by typing your IP address of your host machine into the browser.

3.6 Mounting files

Create a shared directory between your host machine and the guest machine. Edit the ftab file under /etc/ftab to make Ubuntu automatically mount your shared directory when it boots up. Create a directory sharedData under /media/. This is the mount point for this shared directory.

3.7 SSH Client

Make sure you have the SSH server installed. You should then be able to SSH into your virtual machine from your host machine. To get this to work you will have to do some additional port forwarding configuration.

3.8 Hint

Google is your friend. Use the ubuntu forums to look for solutions (http://ubuntuforums.org/). Use the user guide for virtualBox. They also have a forum to search for solutions. If you have to compile anything to get it to work then you are probably down the wrong track. I have left this assignment pretty open for interpretation.