

# CS5331 Web Security - Assignment 0

Due : 28 Jan 2015

## 1 Background

The objective of this assignment is to give you a hands-on experience of setting up a virtual machine. This is an INDIVIDUAL assignment and it will count 5 points towards your final grade.

## 2 Requirements

### 2.1 Step I: Setup

In this assignment, we will give you a virtual machine (VM) disk image file. The virtual machine has the following software installed within for web hosting.

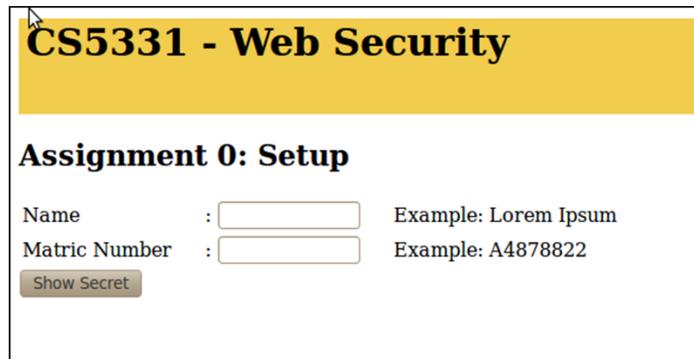
- Ubuntu 10.04 64-bit version
- Apache Web Server
- PHP module
- MySQL Database
- Web application package

First, you should download this VM image (See Section 3). After that, you should run it using a virtualization software. We suggest you to use VirtualBox. Go to this [page](#) to download the software.

**Note:** We will not provide PCs for you. You are expected to have your own PC for the course. Your PC should be able to run 64-bit VMs. **We do not have/provide 32-bit VMs.**

### 2.2 Step II: Go Find the Secret!

After setting up the guest virtual machine, you are supposed to find a secret string located on a secret PHP page. The secret PHP page is located on the guest VM somewhere under `/home/student/public_html` folder. The user interface



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Name :  Example: Lorem Ipsum

Matric Number :  Example: A4878822

Show Secret

Figure 1: UI of secret page

of the secret page is shown in Figure 1. Once you locate the secret PHP page, enter your name and matriculation number. Then, click on the button to reveal the secret string.

### 2.3 Step III: Access from Host Machine

Do make sure that the web application hosted inside your guest VM is accessible simply by web browser running on your host machine. Please take a look at file [vm-access.pdf](#) to configure your guest VM for host access.

## 3 Resources

You will be assigned one web application for this assignment.

You are required to download your VM disk image file, credential information, and configuration files from the course server. We have enabled FTP on the course server so that you will be able to access these files. To access the resources via FTP, use this URL: <ftp://group0@andromeda.d2.comp.nus.edu.sg>. The username is `group0` and password for the account is `group0` as well.

The size of the resource that you are going to download is around 5-10 GB. Thus, you are advised to download them from within SOC network. If you still want to download from outside SOC network, you might want to check [this](#) to set up SOC-VPN and [this](#) to do SSH tunnelling.

**Important!** Off-campus (and even on-campus) download takes excessive time to complete. Do not wait until last minute to finish your assignment.

## 4 Deliverable and Submission

Once you obtain your secret string, take a screenshot of your PC. Your screenshot MUST display both your guest VM and web browser accessing the secret PHP page on your host machine. Figure 2 shows a valid example of a screenshot, except that you don't have to conceal the URL address.

Deadline for uploading your screenshot to IVLE is **28 Jan 2015, 11:59pm**. Use the following format for your file name : [MAT-No.]\_Assignment0.[PDF or JPG or PNG]. For example, A4878822X\_Assignment0.JPG is a valid one.

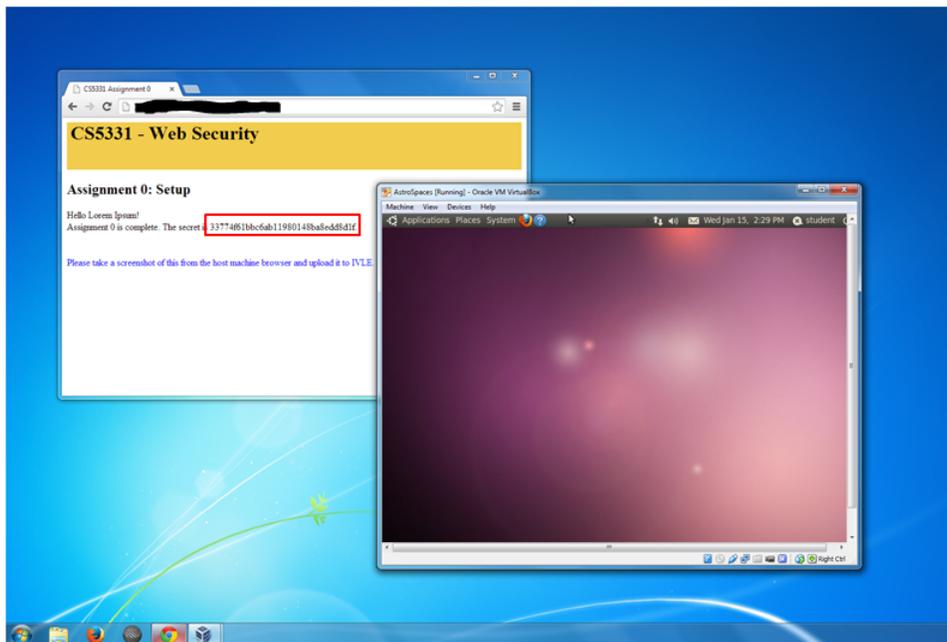


Figure 2: Sample Screenshot

## 5 Form your group

Form your group for subsequent assignments and send an email to the TAs informing about your choice. Each group has **exactly 4 members**. The email subject should be [CS5331] GROUP MAT1, MAT2, MAT3, MAT4, where MATX is the matriculation number of the group member. Only one group member needs to send this. Group is final and course-long, and can't be changed after Assignment 0.

In case you cannot find a group for yourself, or you need more members for your group, the IVLE forum is helpful. If IVLE does not solve your problem, do

send an email to the TAs. The TAs will help you form your group. The email subject should be

- [CS5331] NEEDGROUP MAT NAME, if you are not in any group.
- [CS5331] NEEDMEMBER MAT1, MAT2... which includes all the existing members in your group so far, if you need more member for your group.

Deadline for picking your teammates and emailing to TAs is **28 Jan 2015, 11:59pm**.

## 6 Contact

- TAs : Loi Luu & Li Guodong ([cs5331.ta@gmail.com](mailto:cs5331.ta@gmail.com))

## 7 FAQ

1. How to download the files from FTP?

The simplest way to do it would be to use your web browser. Go to <ftp://group0@andromeda.d2.comp.nus.edu.sg>. After you reach the page, you will be asked for credential information. Use password information that you have got to log into the system. Once you log in, you will be redirected to a folder which contains all resources that you need. Finally, save all those files on your machine.

You can also consider trying free FTP client software. FileZilla is one of popular tools for transferring file using FTP. You can download the tool [here](#). Once you run this software, you need to specify the host name (<ftp://andromeda.d2.comp.nus.edu.sg>) and credential information as well. FileZilla has GUI tool on which you can easily drag files from the server to your machine. It also has versions running on Windows, Linux, and MAC OS.

2. Is the server accessible from outside SOC network?

No, it is not.

3. How to download the files from outside SOC network?

First, you need to make a VPN connection to SOC network. VPN enables a computer to send and receive data that supposedly be accessible within private network. It extends the private network by giving you a private IP address even when you are not directly connected to the network. Read through [this](#), [this](#), and [this](#) on how to set up a VPN connection to SOC network.

Once you connected to SOC network using VPN, it should be easier by now. You could just refer back to first FAQ question on how to download the files from [andromeda](#).

4. I cannot access my guest VM's web server from host machine, what should I do?

Read [vm-access.pdf](#) on how to configure you guest VM for host access. If you are still unable to access VM's web server, you might need to configure the IP address of your web application. Some applications provide an interface to change web application's base URL. Some others might not have such feature, so you might need to modify it directly on their PHP file.