

# Lab 2

CSCI 451 Computer Security  
Department of Engineering and Computer Science  
Virginia State University

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## Objective

Preparing the virtual machine created in Lab 1 for running *Octave* and *Git*; continue to gain familiarity with virtual machines and Linux

## Description

You created a virtual machine in VirtualBox in Lab 1. The Linux system you installed in the virtual machine is a Ubuntu *Server* edition Linux system. By default, the Linux system setup process does not set up a GUI and some useful applications, such as *Octave* that we are to use in the class.

In this Lab, you are to 1) create a linked clone of the virtual machine you created; 2) install and set up a GUI for the Linux system; and 3) install *Octave*.

Following the steps below,

1. Created a *Linked clone* of the Linux virtual machine in VirtualBox following the instruction at <https://www.virtualbox.org/manual/ch01.html#clone>.
2. Once you log in to the Linux system, install a light-weight GUI, called *xfce* from the terminal as follows,

```
sudo apt-get install xfce4
```

3. Install *Git* from the terminal,

```
sudo apt-get install git
```

4. Install *Octave* from the terminal,

```
sudo apt-get install octave
```

5. Use the GUI. From the terminal,

```
startx
```

You can now use the GUI. For instance, right-click on the Desktop, and choose “Open Terminal Here” to open a terminal window.

6. Use *Git*. For instance, to clone the Vigenère cipher attacking programs that the instructor wrote from the Git repository,

```
git clone https://github.com/huichen-cs/vigenere
```

You should now see the directory “vigenere” on the current working directory. In Linux, from the terminal, you can check the content of the current working directory, using command `ls` and switching directories using command `cd`.

7. Use *Octave*. In a terminal window,

```
octave
```

## Submission

Demonstrate to the instructor that you can start the GUI, clone a repository using *Git*, and start *Octave*.

You must demonstrate your completed lab work in class, Monday August 29, 2016.