End User Guide

Introduction

Inside your own sandbox environment, you are being equipped with tools and programs to aid you in your software development and document editing tasks. This machine has all the tools you need to be able to write, edit and execute Python files. You can also compile and execute C/C++ programs with the provided GCC compiler. There are even more tools available for work and entertainment. Please use this guide to familiarize yourself with everything that is available to you and how to finish setting up your virtual machine.

Tools Available

The tools you are given on this linux based virtual machine are as followed:

- Visual Studio Code
- VIM
- GCC compiler on linux terminal
- Python
- WordPress
- Apache OpenOffice Writer (Word, SpreadSheet and Presentation)
- Okular PDF Viewer
- FireFox Web Browser
- Spotify Desktop

These tools were carefully selected as they are of no cost to you or the institution and have many capabilities that make software development and document editing more intuitive. There is also an eclectic mix of tools that you can use. If you prefer a command-line editor then VIM is available. If you prefer to have a dedicated IDE for code writing the Visual Studio Code has been installed.

In terms of code compiling and execution, Python is installed on the machine allowing you to write and execute python scripts. The GCC compiler has been installed, as well, for those who write programs in C/C++. If any other types of languages or compilers need to be installed, you as the admin user can install them as you deem necessary.

There are also some basic document and pdf editors installed that have the necessary tools for maximum productivity. Okular is a similar tool to Microsoft Word and the OpenOffice Writer products are meant to allow spreadsheet, presentation, and word document creation as well.

For entertainment purposes, the music listening application, Spotify, has been installed for those who like to listen to music or podcasts while working. You will need an account. If you are a student, you can get a discounted premium membership at the link below.

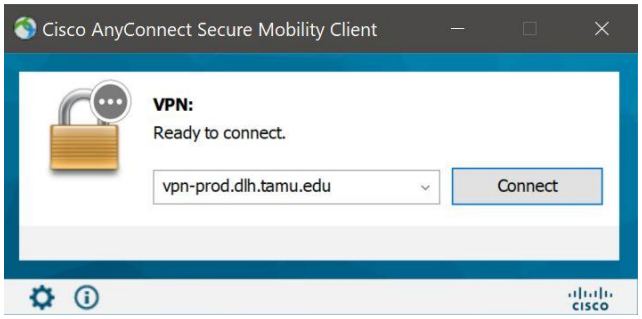
Spotify Student Account: https://www.spotify.com/us/student/

The engineer responsible for configuring your virtual machine is an avid music listener and wanted to share their love of music with as many people as possible :)

Getting Started

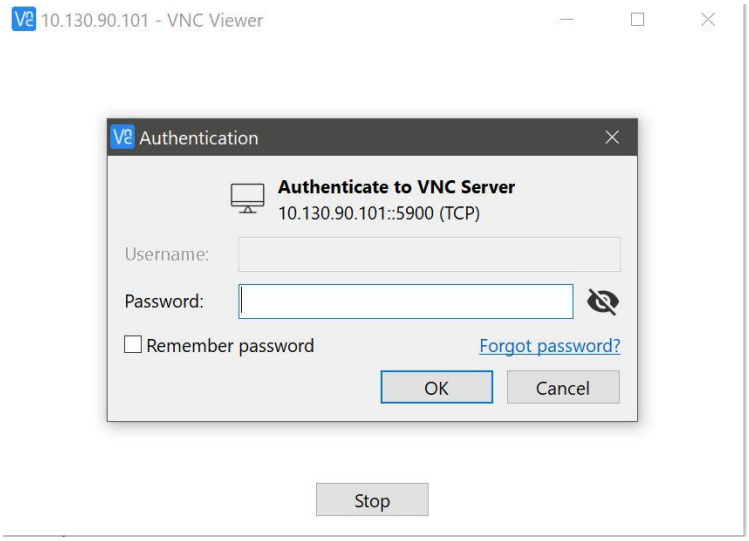
Luckily there is minimal set-up required on your part to get started using this environment. All the tools are installed for you, the developer! All you need are your VM credentials to access your dedicated sandbox environment.

First, you will need to download Cisco AnyConnect VPN onto your computer. This will allow you to connect to your box using the credentials assigned to you. You should have received login credentials for both the VPN and VirtualBox environment from your service provider, in this case, it might be TxCr.

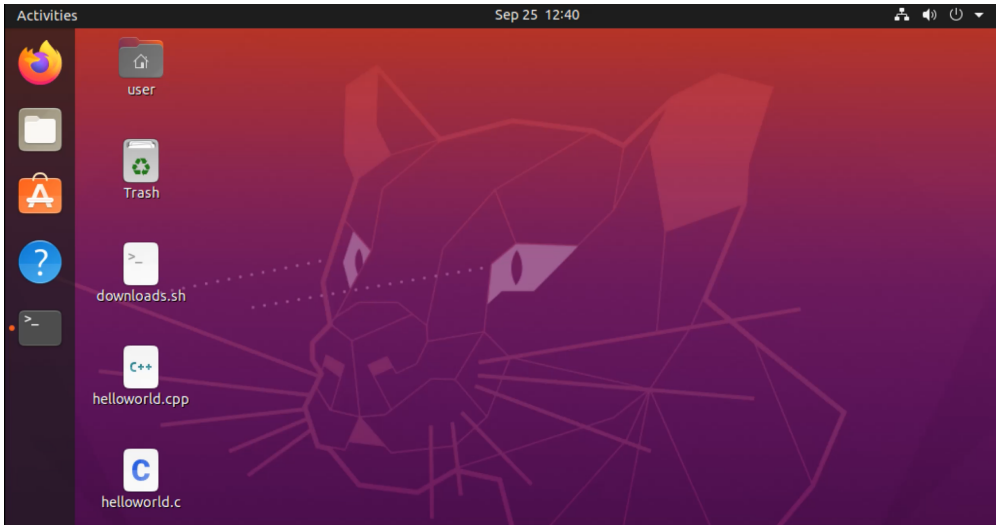


Once you are connected to the VPN, you are ready to access your virtual box. A good tool to use is VNC Viewer to remotely access your box. By going to https://www.realvnc.com/en/connect/download/viewer/ you can download the

appropriate file for you. Once this is downloaded, you can enter the IP address for your machine along with the VM login credentials and you should be good to go!



You should see something similar when your VM is all set-up and ready to go.

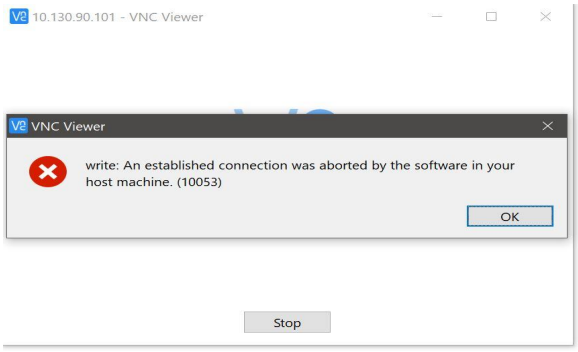


Accessing Tools

There are a couple of easy ways to find and access the tools provided to you. Some, like Firefox and the terminal, can be found on the vertical bar on the left. Another easy way to access the applications is by clicking on the 'dotted' icon on the bottom left side of the screen. This will take you to a screen where you can type and search what application you are trying to find. Finally, you can use the terminal to access all file locations. The Linux terminal originally opens up in your HOME directory and from there you can go to the 'WordPress folder, for instance, and view the files there.

TroubleShooting VM

1. VM box disconnects to server or stuck on black screen:
    a. Do not disconnect the session or server connection when you are finished working with your VM. Simply close down the VNC Viewer window.



    b. If you received an error like the one above or your VM screen is stuck on a black screen, contact TxCR. Their email is txcr-support@tamu.edu . They will reset your machine remotely with their admin access rights. Send them the IP address of your machine in the email.
    c. Please allow them 1-2 days to get back to you with an update on your ticket/incident.
2. Login/credential issues:
    a. Make sure you are connected to the VPN before you attempt to log in to the VM

b. If you are sure you are entering your credentials correctly without any luck, please contact txcr-support@tamu.edu with a description of the issue and also the IP address of your VM. They can reset your password with their admin rights.

3. Installation/Application issues:
    a. If there is an application you cannot access, please double check that it is on the list of applications already downloaded/available.
    b. If you are trying to download a new application and are experiencing slow downs or machine crashes, it may be due to the lack of resources available. The VM itself is meant to be used for basic software development.
        i. To get an increase in space and resources to your machine, please contact txcr-support@tamu.edu to see what options they have available.

Appendix

WordPress is the only tool that requires your attention for configurations. PHP, Apache2, SQL, and other dependencies have all been installed for WordPress to run properly. The WordPress folder is located in the home directory.

Since WordPress requires a web server and database configuration, we have left that part up to you to give you the freedom to create and use WordPress how it works best for you.

By going to: https://wordpress.org/support/article/how-to-install-wordpress/, you can configure the SQL database on the web server of your choosing (Apache2 is pre-installed). Please start at #2 as we have downloaded the WordPress folder for you.

https://ubuntu.com/tutorials/install-and-configure-wordpress#4-configure-apache-for-wordpress is also another good source to use. You may start from instruction #4.