# **Devops Toolkit**

**Objective:** Provide a basis to learn and explore concepts used in industry today. Familiarize students with virtual machines(VMs), command line interface(CLI), and Continuous Intigration/Continuous Development(CI/CD) pipelines.

* **Installing Utilities**
  + Download VirtualBox. This application will hold the virtual machine that you create for your projects.
    - <https://www.virtualbox.org/wiki/Downloads>   
      Choose the correct distribution for your host OS.
  + Download Vagrant. We will use this tool to automate the production and tear down of virtual machines.
    - <https://www.vagrantup.com/downloads.html>   
      Choose the correct distribution for your host OS.
* **Creating the VM**
  + Open the SIUE-Devops github page (<https://github.com/SIUE-DevOps>) and open the Vagrant Files Repo.
  + Click the ‘clone or download’ button and copy the https address that pops up.
  + Open power shell or terminal within the directory where you want to house the repo, this can be done using the command ‘ls’ to find a directory and the command ‘cd <directory name>’ to move to that directory
  + Once here use the command ‘git clone’ and then paste the https address from the previous step.
  + Once this is done enter the new directory and you can see that there are many files including a vagrantfile. This will be used to create your VM.
  + In the command prompt, enter "vagrant up" to initiate the start-up of your VM
  + Once the set-up is complete you can pull up virtual box and you will see there is a VM running on your machineChoose the correct distribution for your set up.
* **Using the VM**
  + Follow the directions located in the documents folder of this repo under ubuntuDocumentation.md on how to use your VM to test code.
* **Destroying the VM**
  + To remove the VM from your machine simply enter the command "vagrant destroy" into the command prompt on your host computer.

For more information on utilities:

* VirtualBox: <https://www.virtualbox.org/wiki/User_FAQ>
* Vagrant: <https://docs-v1.vagrantup.com/v1/docs/getting-started/>
* Docker: <https://docs.docker.com/engine/faq/>
* Travis CI: <https://docs.travis-ci.com/user/getting-started/>