Recommended PC configuration	
Windows: Windows 10 or Higher Minimum 8 GB RAM Available 40 GB Hard Disk Space	**Mac**: Latest Mac OS Minimum 8 GB RAM Available 40 GB Hard Disk Space

1. Download and install Mac/Windows versions of the following software:

   VirtualBox (The software that creates virtual machines)
   Vagrant (The software that deploys virtual machines into VirtualBox)

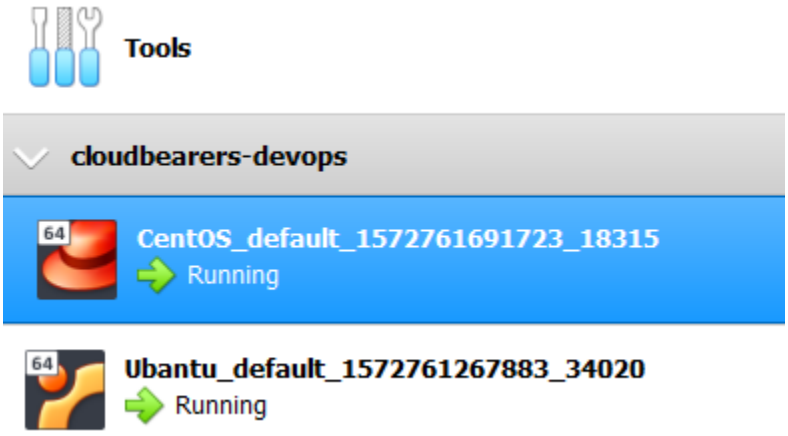
2. Setup Ubuntu Guest machines (Virtual machines) using Vagrant

   - Create a folder DevOps/vagrant/ubuntu under preferred drive in your Mac/Windows PC
   - Create a 'Vagranfile' file under ubuntu folder, past the sample vagrant file content from github links
     https://github.com/prkatta/dotraining/tree/master/installs/varant-vms/ubuntu/Vagrantfile

   - Open command prompts, cd to "DevOps\Vagrant\Ubuntu"
   - (for MAC only) Go to VM folder where you created Vagrantfile and run "**vagrant init hashicorp/bionic64**"

     ```
     C:\DevOps\Vagrant\Ubuntu>vagrant init hashicorp/bionic64
     A `Vagrantfile` has been placed in this directory. You are now
     ready to `vagrant up` your first virtual environment! Please read
     the comments in the Vagrantfile as well as documentation on
     `vagrantup.com` for more information on using Vagrant.
     ```

   - (For MAC and Windows) Now from the same location, run "**vagrant up --provision**" for Ubuntu
   - Let it complete the ubuntu machines up and running



Login for Vagrant: vagrant / vagrant

Hint: Perform Network bridging and try to access Ubuntu from Putty client as the default SSH client from Virtual box does not have good user interface.

3. Now double click Ubuntu from Virtual Box and login to the Ubuntu with vagrant/vagrant

Ubuntu
GIT sudo apt-get install git -y
JDK sudo apt-get install openjdk-8-jdk -y sudo apt-get install openjdk-11-jdk -y
Ngnix sudo apt-get install nginx -y
Tomcat sudo vi `/etc/apt/sources.list` <go to last line of the file, then press 'o'> <add / type the following two lines in the file> <press 'esc' button and :wq! To save the file> sudo apt-get update sudo apt-get install tomcat -y
Maven & Gradle sudo apt-get install maven -y sudo apt-get install gradle -y
My SQL sudo apt-get install mysql-server -y
Postgress https://tecadmin.net/install-postgresql-server-on-ubuntu/ sudo apt-get install wget ca-certificates wget --quiet -O - https://www.postgresql.org/media/keys/ACCC4CF8.asc | sudo apt-key add - sudo sh -c 'echo "deb http://apt.postgresql.org/pub/repos/apt/ `lsb_release -cs`-pgdg main" >> /etc/apt/sources.list.d/pgdg.list' sudo apt-get update sudo apt-get install postgresql postgresql-contrib
NodeJS & NPM sudo apt-get install nodejs -y sudo apt-get install npm -y
Docker sudo apt-get install docker -y
Groovy sudo apt-get install groovy -y

Python 3.7

wget https://www.python.org/ftp/python/3.7.1/Python-3.7.1.tgz
tar -xvf Python-3.7.1.tgz
sudo apt-get install gcc
sudo apt-get install libffi-dev
cd Python-3.7.1
./configure --enable-optimizations
sudo make
sudo make install
python3.7 -V
sudo apt-get upgrade python3

Jenkins LTS

wget -q -O - https://pkg.jenkins.io/debian/jenkins.io.key | sudo apt-key add -
sudo sh -c 'echo deb http://pkg.jenkins.io/debian-stable binary/ > /etc/apt/sources.list.d/jenkins.list'
sudo apt-get update
sudo apt-get install jenkins

Grafana

sudo apt-get install -y gnupg2 curl
curl https://packages.grafana.com/gpg.key | sudo apt-key add -
sudo add-apt-repository "deb https://packages.grafana.com/oss/deb stable main"
sudo apt-get update
sudo apt-get -y install grafana
sudo systemctl start grafana-server
sudo systemctl status grafana-server

Ansible

sudo apt-add-repository ppa:ansible/ansible
sudo apt-get update
sudo apt-get install ansible -y

JQuery

sudo apt-get install jq

CheckMK

sudo apt-get install checkmk

ELK

https://www.digitalocean.com/community/tutorials/how-to-install-elasticsearch-logstash-and-kibana-elastic-stack-on-ubuntu-18-04

How to switch between JAVAs
sudo alternatives --config java
set java 11

Puppet Environment:
Foreman: https://www.theforeman.org/manuals/1.23/index.html#2.1Installation

Ansible:
Ansible Environment: https://www.theforeman.org/manuals/1.23/index.html#2.1Installation

Jq : https://stedolan.github.io/jq/

Reference Links:

Git- > https://www.digitalocean.com/community/tutorials/how-to-install-git-on-centos-7
Maven-> https://www.tecmint.com/install-apache-maven-on-centos-7/
Mysql -> https://www.digitalocean.com/community/tutorials/how-to-install-mysql-on-centos-7
Tomcat -> https://www.digitalocean.com/community/tutorials/how-to-install-apache-tomcat-7-on-centos-7-via-yum

Python -> https://www.digitalocean.com/community/tutorials/how-to-set-up-python-2-7-6-and-3-3-3-on-centos-6-4

Docker-> https://www.digitalocean.com/community/tutorials/how-to-install-and-use-docker-on-centos-7
Postgres -> https://www.digitalocean.com/community/tutorials/how-to-install-and-use-postgresql-on-centos-7
ELK- https://www.digitalocean.com/community/tutorials/how-to-install-elasticsearch-logstash-and-kibana-elastic-stack-on-centos-7

CheckMK: https://www.fosslinux.com/8424/install-and-configure-check_mk-server-on-centos-7.htm

Linux Sheet Cheat : https://www.linuxtrainingacademy.com/linux-commands-cheat-sheet/#12_8211_SSH_LOGINS

IDE's:

Intellij: https://www.jetbrains.com/idea/download/#section=windows
PyCharm: https://www.jetbrains.com/pycharm/
Atom: https://atom.io

Java Build Tools

- Maven: https://maven.apache.org/guides/getting-started/maven-in-five-minutes.html
- Gradle: https://gradle.org/install/

Example projects:
Jenkins: https://github.com/jenkinsci/jenkins
SonarQube: https://github.com/SonarSource/sonarqube
Spring pet-clinic: https://github.com/spring-petclinic/spring-framework-petclinic
Misc samples : https://github.com/jfrog/project-examples/tree/master/python-example

Sample Programs for All languages

- Python: https://github.com/jfrog/project-examples/tree/master/python-example