Build Server configuration

# Op System: Ubuntu 16.04

# Build\_Jenkins\_Sandbox IP address : 172.28.25.123

# Build\_Jenkins\_Gold IP address : 172.28.25.136

# Install Java:

### Download Site:

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

Version to download: jdk-11.02\_linux-x64\_bin.tar.gz

x64 for 64 bit systems and tar.gz for Ubuntu Op Systems

### Steps:

1. create a directory in the /usr/lib directory called java

Cd Downloads directory

/Downloads$ sudo tar -xzvf jdk-11.02\_linux-x64\_bin.tar.gz -C /usr/lib/java

X = extract, v= verbose, z= gunzip/unzipping f= extract in filesystem tar= to create and extract tape archives

-C specifies a different directory other than the current working directory

1. Add the file path for java to the /etc/environment file as JAVA\_HOME

cd /etc

sudo nano environment

#Edit the file with this line.

JAVA\_HOME=”usr/lib/java/jre1.8.0\_201”

1. Next show Ubuntu a link to java

sudo update-alternatives --install "/usr/bin/java" "java" "/usr/lib/java/jre1.8.0\_201/bin/java" 1

Set this version of java as the default

sudo update-alternatives --set java /usr/lib/java/jre1.8.0\_201/bin/java

1. To check that java is install

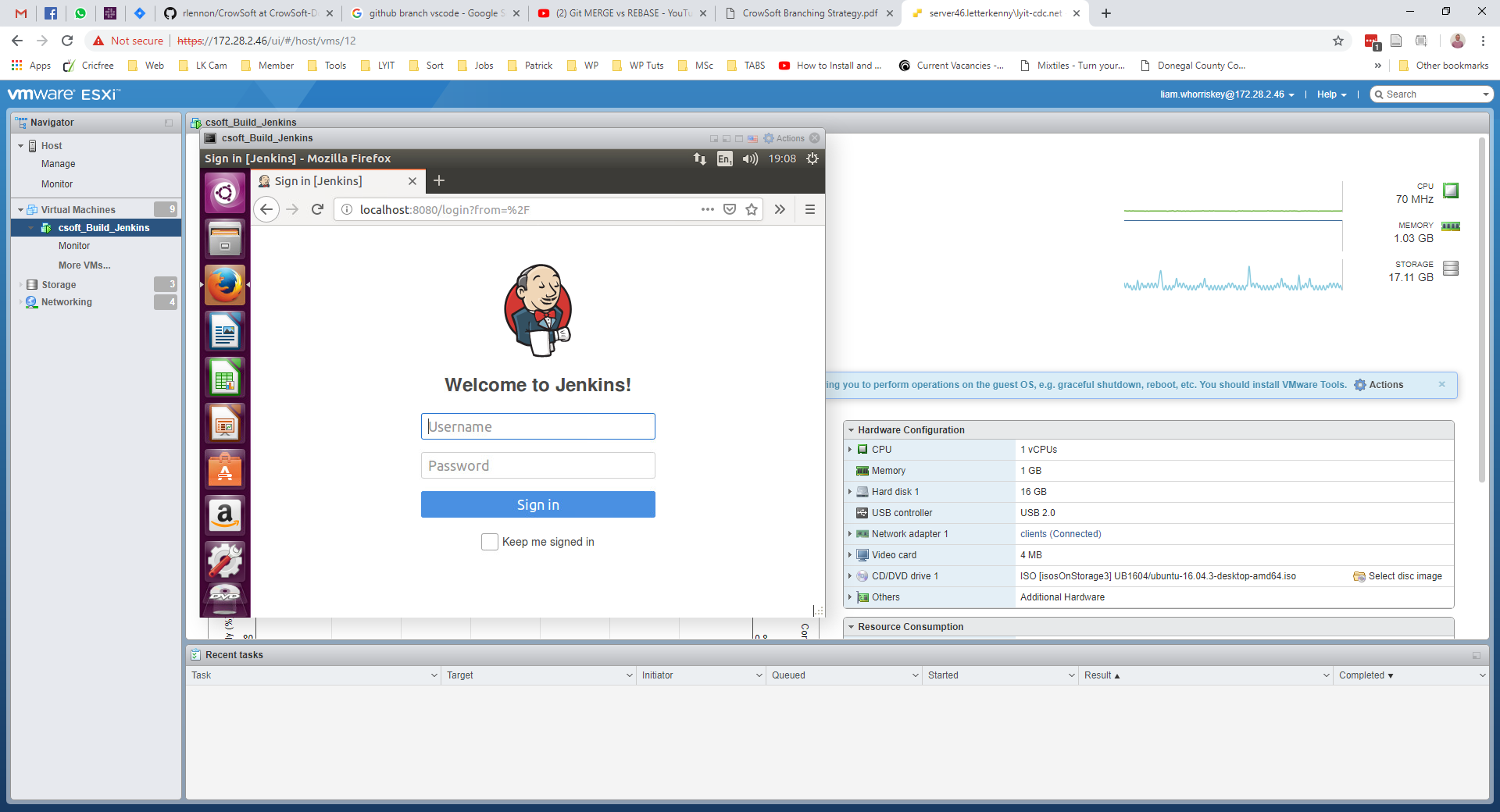
java -version This should return:

java version "1.8.0\_201"

Java(TM) SE Runtime Environment (build 1.8.0\_201-b09)

Java HotSpot(TM) 64-Bit Server VM (build 25.201-b09, mixed mode)

# Jenkins



**Jenkins Setup Complete with suggested plugins.**

* Name: Dev Ops
* User: admin
* Pass: \*\*\*\*\*\*19
* email: [l00113360@student.lyit.ie](mailto:l00113360@student.lyit.ie)
* Jenkins Url: <http://localhost:8080/>

**Plugins Installed**

* Ant Plugin
* Build Timeout
* Email Extension Plugin
* GitHub Branch Source Plugin
* Gradle Plugin
* LDAP Plugin
* Matrix Authorisation Strategy Plugin
* SWASP Markup Formatter Plugin
* PAM Authentication Plugin
* Pipeline
* Pipeline: GitHub Groovy Libraries
* SSH Slaves Plugin
* Subversion plugin
* Timestamper
* Workspace Cleanup Plugin
* Artifactory plugin
* Audit log
* Backup plugin

### Jenkins Security

* Added Users with permissions
* Disabled “Remember Me” option
* Set up Matrix-based security

# Artifactory

Install: JFrog Artifactory-OSS Version 5.8.3. An open source version of JFrog Artifactory

Created: Maven, Gradle and Generic Repositories

Set up: Users with permissions

# Install Gradle:

After Java JDK has been installed install Gradle.

### Steps

1. Download the zip Gradle file

cd /tmp

wget <https://services.gradle.org/distributions/gradle-4.10.2-bin.zip>

This will download the file into the tmp directory

sudo unzip -d /opt/gradle /tmp/gradle-\*.zip

This extracts the file into the /opt/gradle/gradle-4.10.2 directory

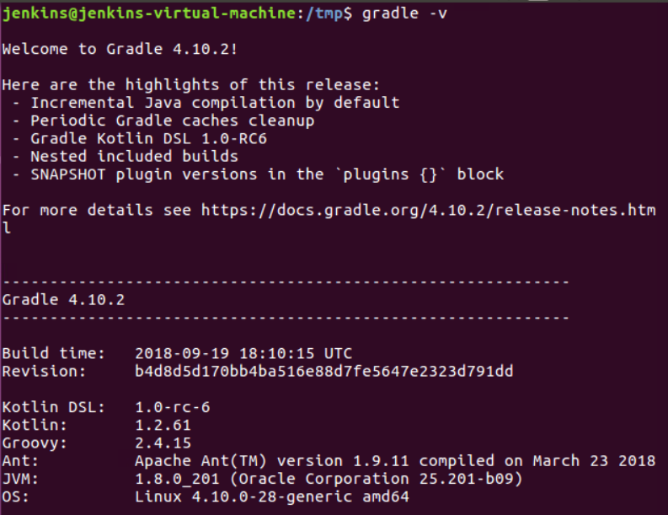
2. Configure Ubuntu Environment Variables

sudo nano /etc/profile.d/gradle.sh

This creates a new file called gradle.sh in the /etc/profile.d directory. Inside this file the following is added.

export GRADLE\_HOME=/opt/gradle/gradle-4.10.2

export PATH=${GRADLE\_HOME}/bin:${PATH}

 Exit and save the file ‘ctrl + x’ then y.

When done run the following commands to make the file executable.

sudo chmod +x /etc/profile.d/gradle.sh

source /etc/profile.d/gradle.sh

3. To check if Gradle installed correctly

gradle -v

It should return this →