**Jenkins:**

Installing Jenkins on CentOS (Customize):

sudo yum -y update && sudo yum -y install wget

* Add user Jenkins with sudo privilidges

sudo useradd jenkins #(create jenkins user)

sudo passwd jenkins #(set password for jenkins user)

sudo usermod jenkins -aG wheel #(add to sudo user group)

sudo su jenkins #(swtich to user jenkins)

* Create home directory for java and jenkins

sudo mkdir -p /opt/tools/java #(JAVA home directory)

sudo mkdir -p /opt/tools/maven #(Maven home directory)

sudo mkdir -p /opt/jenkins #(Jenkins HOME directory)

sudo chown -R jenkins:jenkins /opt/jenkins/ #(Change ownership of jenkins directroy)

* Download Java:

cd /opt/tools/java/ #(change directory to java home)  
sudo wget <https://download.bell-sw.com/java/8u192/bellsoft-jdk1.8.0-linux-amd64.tar.gz>

sudo tar xzvf bellsoft-jdk1.8.0-linux-amd64.tar.gz # (extract downloaded java)

* Install Jenkins  
  sudo wget -O /etc/yum.repos.d/jenkins.repo <https://pkg.jenkins.io/redhat-stable/jenkins.repo> #(download stable jenkins repo)  
  sudo rpm --import <https://pkg.jenkins.io/redhat-stable/jenkins.io.key>  
  sudo yum –y install jenkins #(install jenkins)
* set fire wall rules on the cloud instance to open the communication on port(by default port 8080) you want to run Jenkins on   
  sudo firewall-cmd --zone=public --permanent --add-port=8080/tcp #(open port 8080 for communication)  
  sudo firewall-cmd --reload #(reload the firewall changes)
* Customization begins.  
  cp /usr/lib/jenkins/jenkins.war /opt/jenkins/. #copy the installed jenkins war  
  sudo vi /etc/sysconfig/jenkins (change jenkins config for the java to use)  
  ***JENKINS\_JAVA\_CMD="/opt/tools/java/jdk-1.8.0/bin/java"***sudo vi /etc/init.d/jenkins #(update jenkins script for jenkins war location)  
  ***JENKINS\_WAR="/opt/jenkins/jenkins.war" #(add this in script file)***sudo service jenkins start #start the jenkins service  
  sudo service jenkins status #check the status of the service  
  ps -ef|grep jenkins #check the jenkins process on the machine  
  tail -f /var/log/jenkins/jenkins.log #monitor real time log of the serviceNow you have customized the install for Jenkins, keep monitoring the logs,Once it says Jenkins is up and running, navigate the urlhttp://<yourmachineIP>:8080 and voila!! You are a champ ☺