Jenkins Package uploading to AWS Elastic Container Service [ECS]

**Pre-requirements: In server we must do below steps.**

* Install Java
* Install Maven
* Install Jenkins
* Install Docker
* Install Git.

***Docker Installation steps:***

Login as : sudo su

yum install <http://yum.dockerproject.org/repo/main/centos/6/Packages/docker-engine-1.7.1-1.el6.x86_64.rpm> -y

service docker status

service docker restart

(OR)

-----------------------------------------------

yum update -y

yum -y install docker-io

service docker start

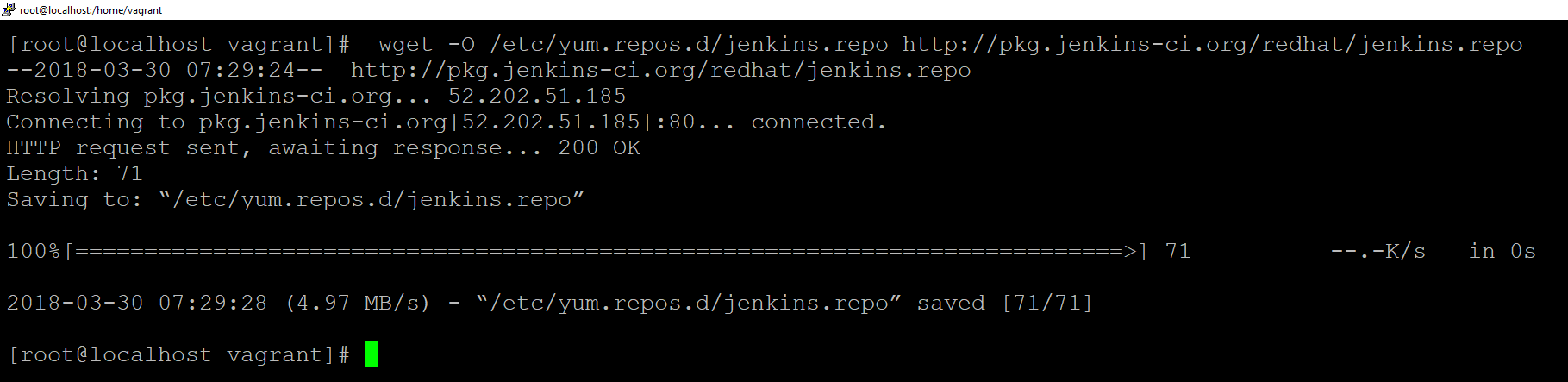
[root@localhost vagrant]# service docker status

docker (pid 13569) is running...

[root@localhost vagrant]#

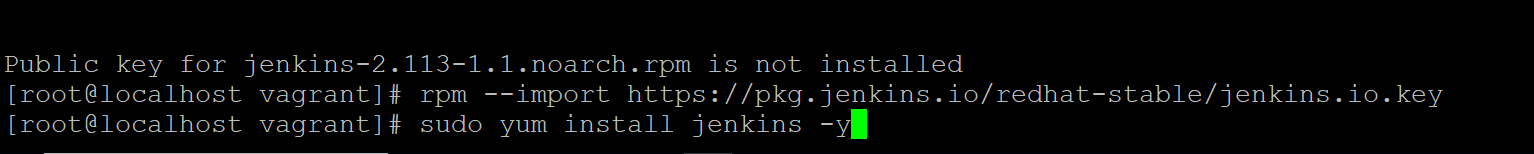
*Jenkins Installation in Server:*

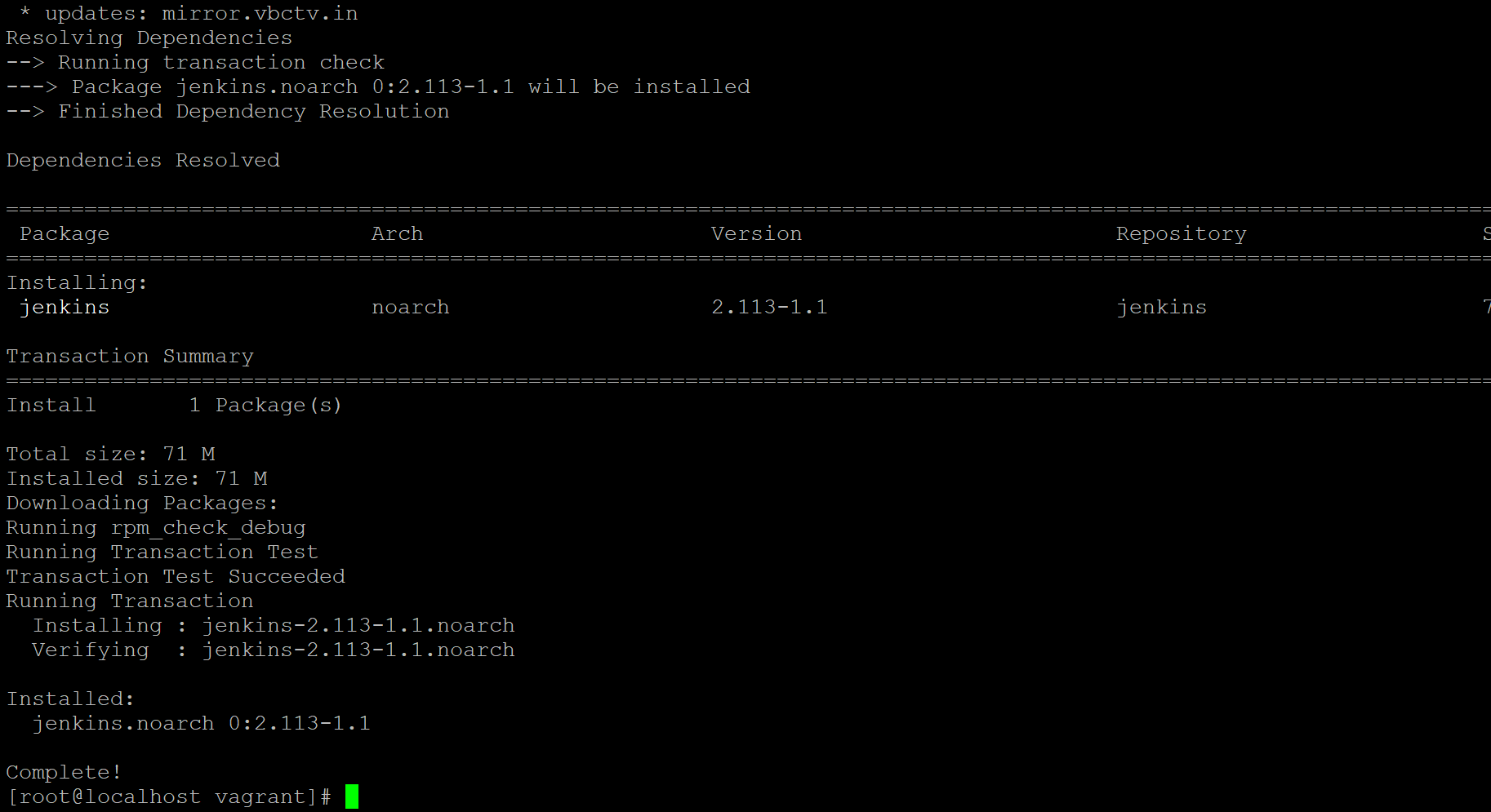
sudo wget -O /etc/yum.repos.d/jenkins.repo <http://pkg.jenkins-ci.org/redhat/jenkins.repo>

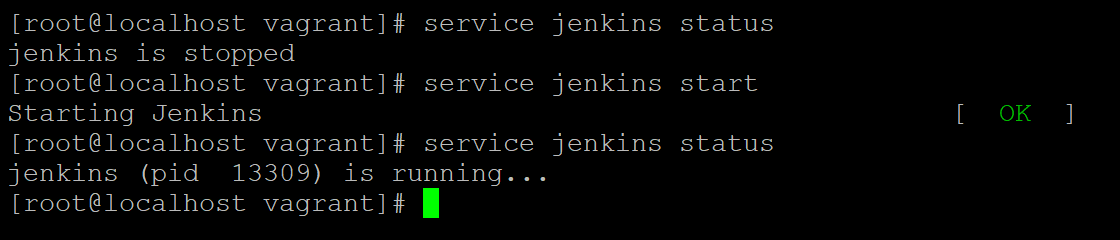


rpm --import <https://pkg.jenkins.io/redhat-stable/jenkins.io.key>

yum install Jenkins -y

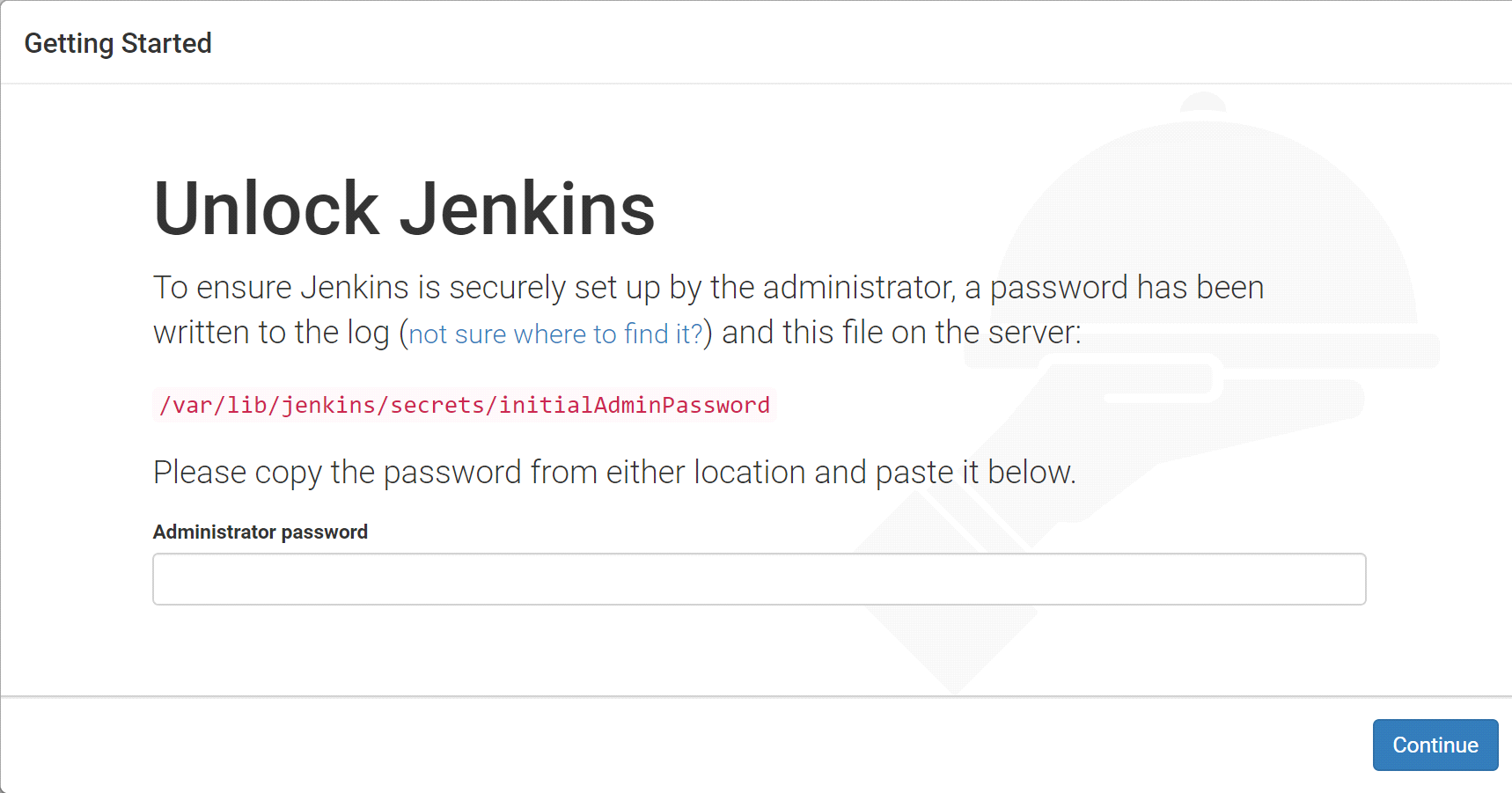






yum install java -y

service jenkins start



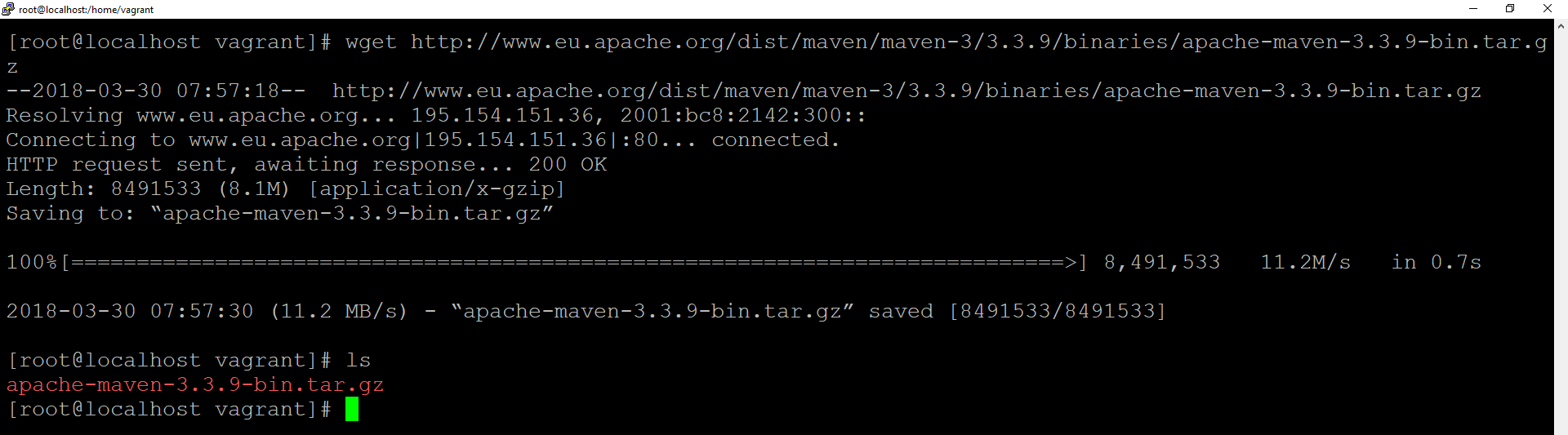
For Administrator password please go to below location.

/var/lib/jenkins/secrets/initialAdminPassword

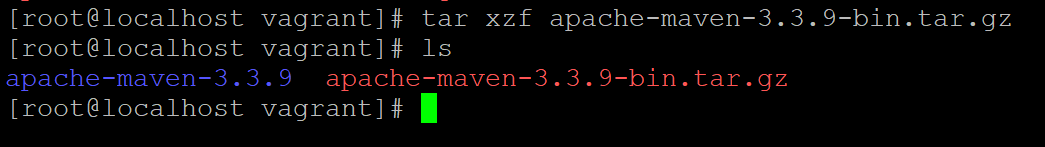


***Maven Installation in Server***

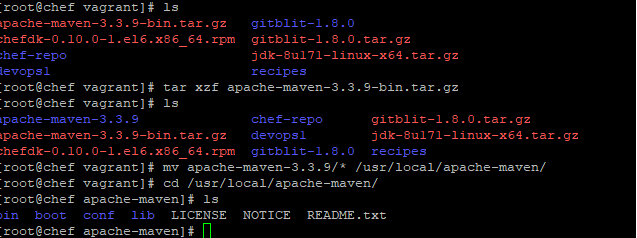
wget <http://www.eu.apache.org/dist/maven/maven-3/3.3.9/binaries/apache-maven-3.3.9-bin.tar.gz>



tar xzf apache-maven-3.3.9-bin.tar.gz

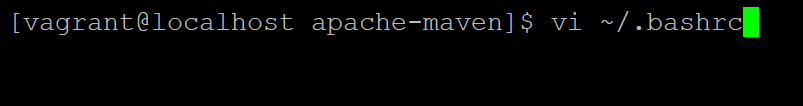


* Login to sudo su

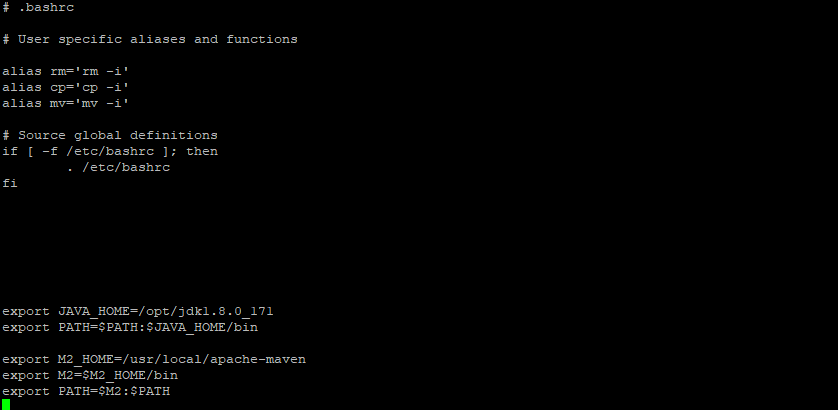


mkdir /usr/local/apache-maven

* Set the Environment variable using below steps.



'



export M2\_HOME=/usr/local/apache-maven

export M2=$M2\_HOME/bin

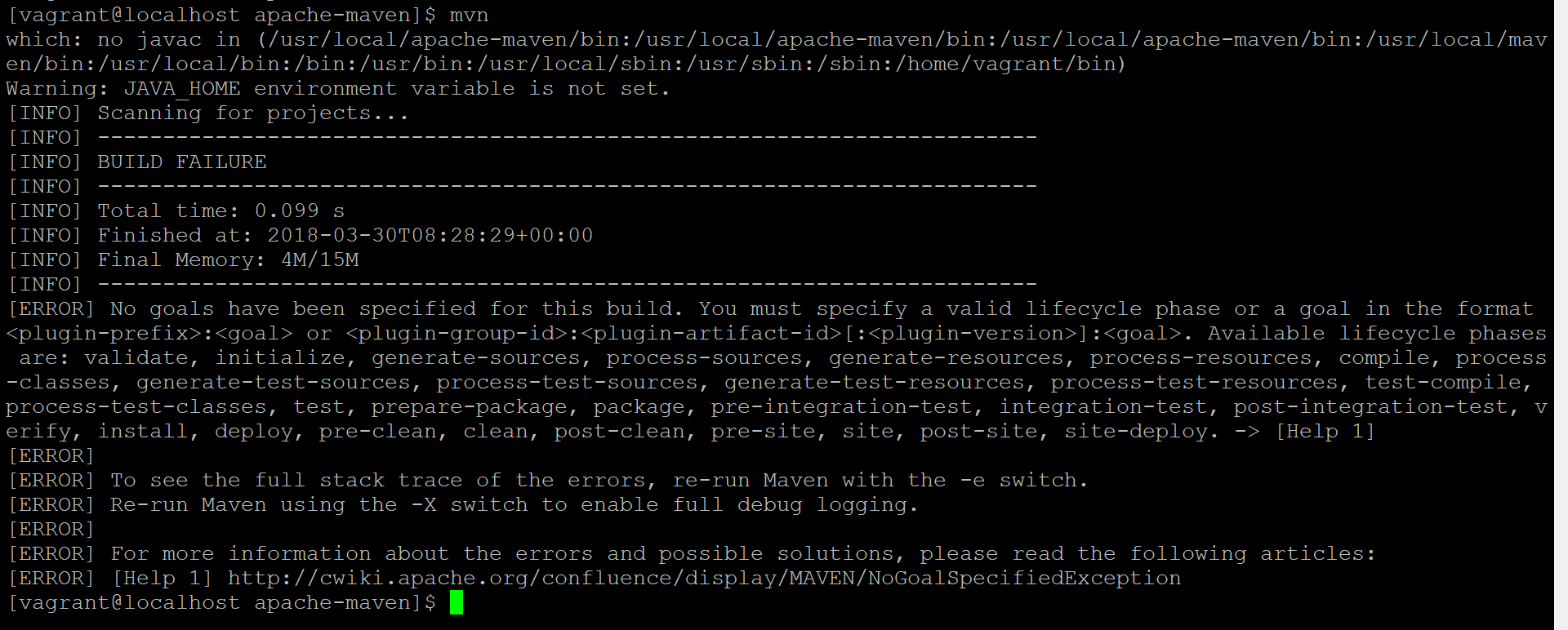
export PATH=$M2:$PATH

After that run the below command or you can try to run reboot command.Once it is completed then check the mvn version.



**echo $M2\_HOME**

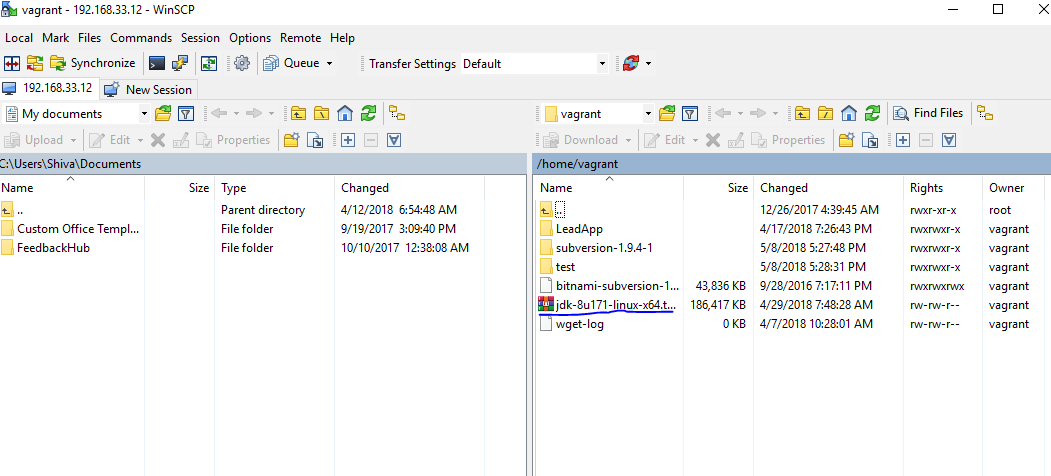
/usr/local/apache-maven



* It is showing Java home error we need to set the Java Environment variable.
* Java Installation and setting the environment variable: Open machine 192.168.33.20

**Go follow below steps.**

**Jenkins Installtions :192.168.33.20**

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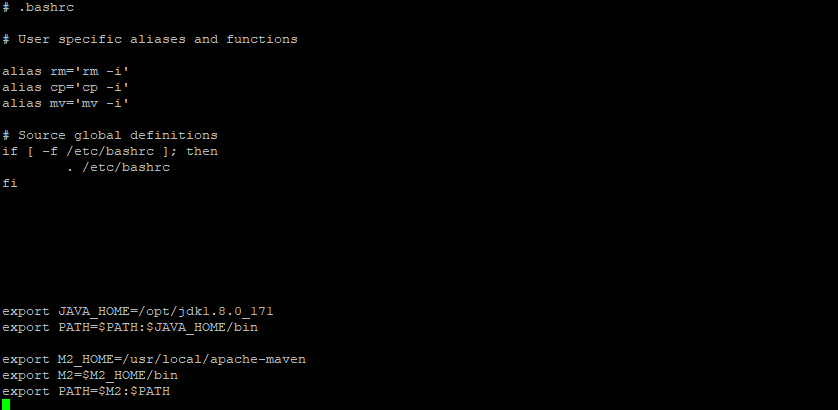
Java Installation Steps:

* cd /opt/
* wget --no-cookies --no-check-certificate --header "Cookie: gpw\_e24=http%3A%2F%2Fwww.oracle.com%2F; oraclelicense=accept-securebackup-cookie" "<http://download.oracle.com/otn-pub/java/jdk/8u161-b12/2f38c3b165be4555a1fa6e98c45e0808/jdk-8u161-linux-x64.tar.gz>"
* tar xzf jdk-8u161-linux-x64.tar.gz
* cd /opt/jdk1.8.0\_161/
* alternatives --install /usr/bin/java java /opt/jdk1.8.0\_161/bin/java 2
* alternatives --config java

Setting environment variable:

Go through the below location.

vi .bashrc



* After that run the below command.

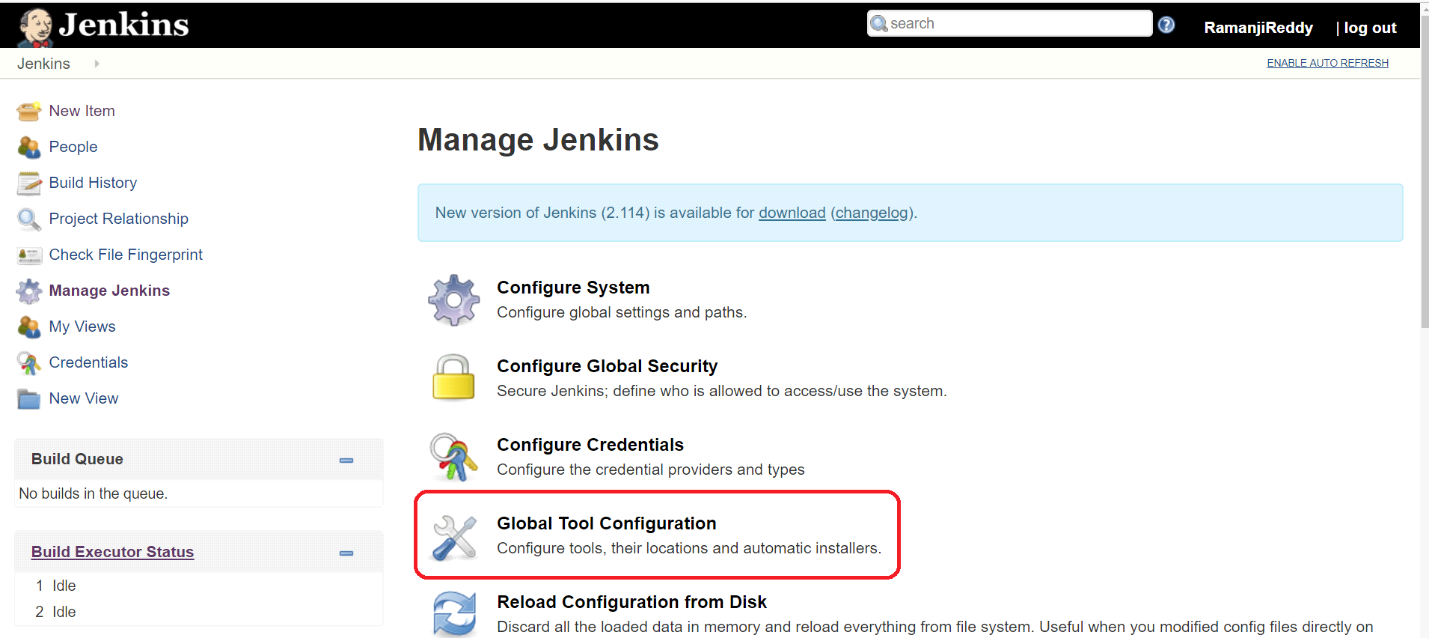
source .bashrc

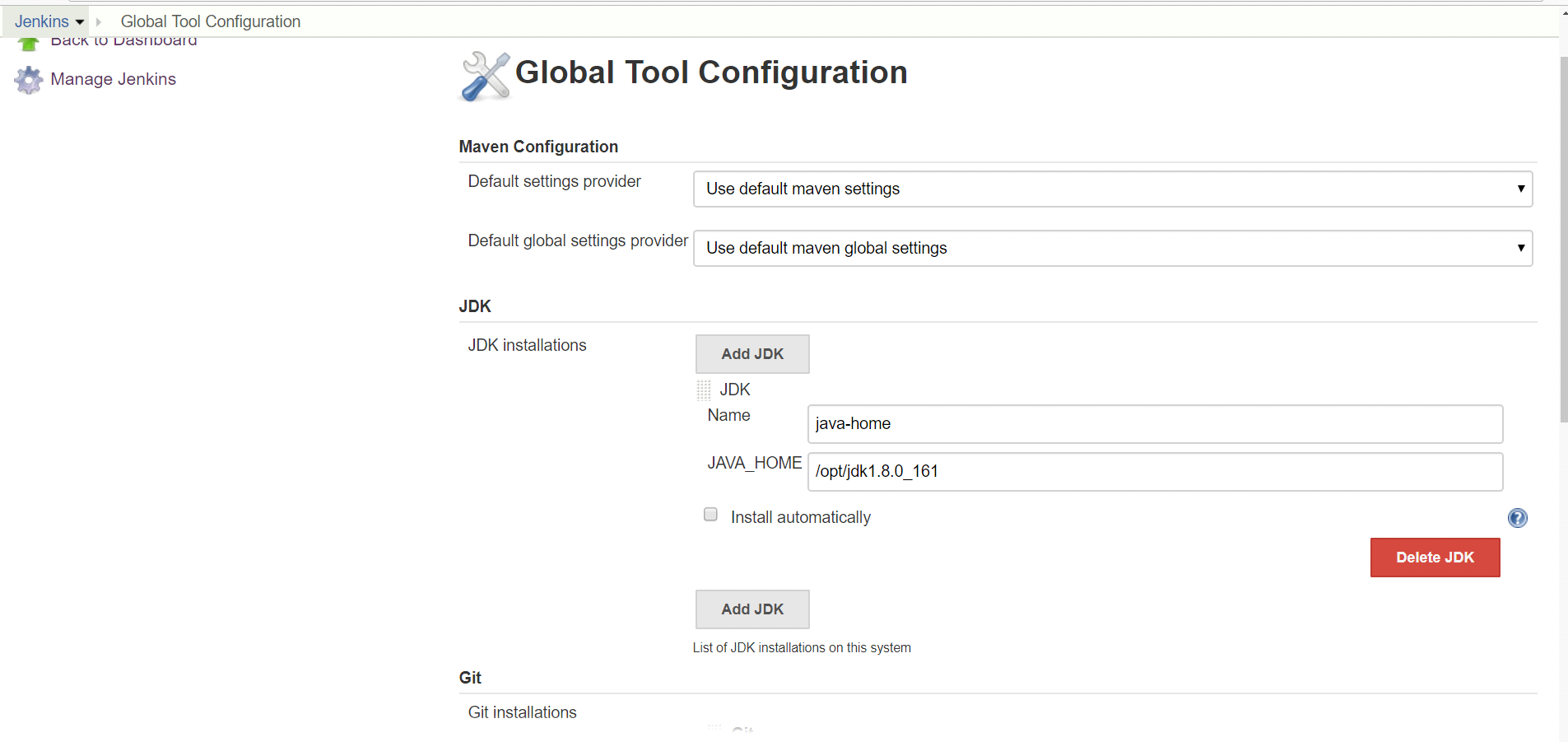
source ~/.bashrc

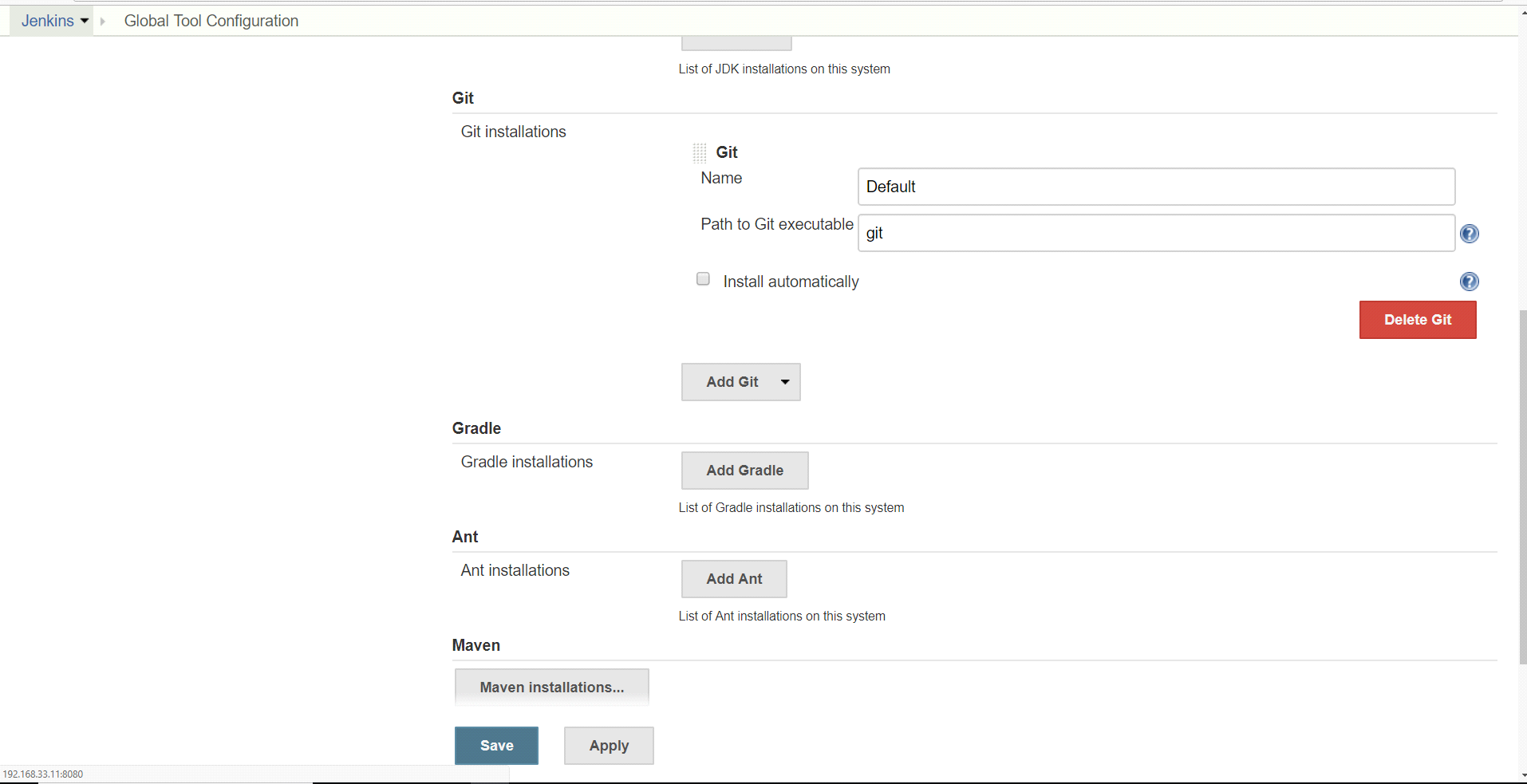
* run the below command to check the Java location same we have to set in Jenkins.

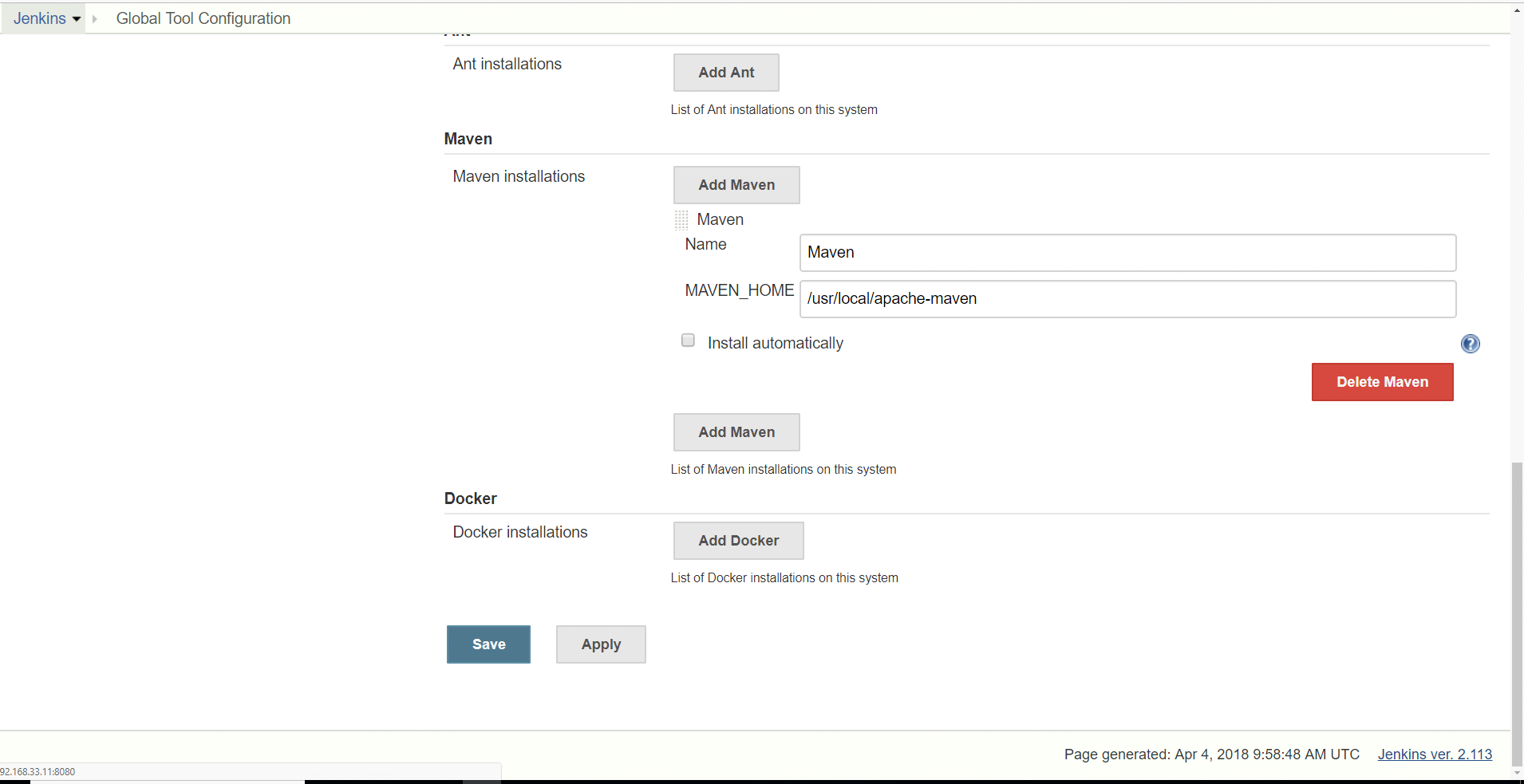
Jenkins Job configuration for uploading packages from Jenkins to ECS in AWS account.

**Setting the tools location:**





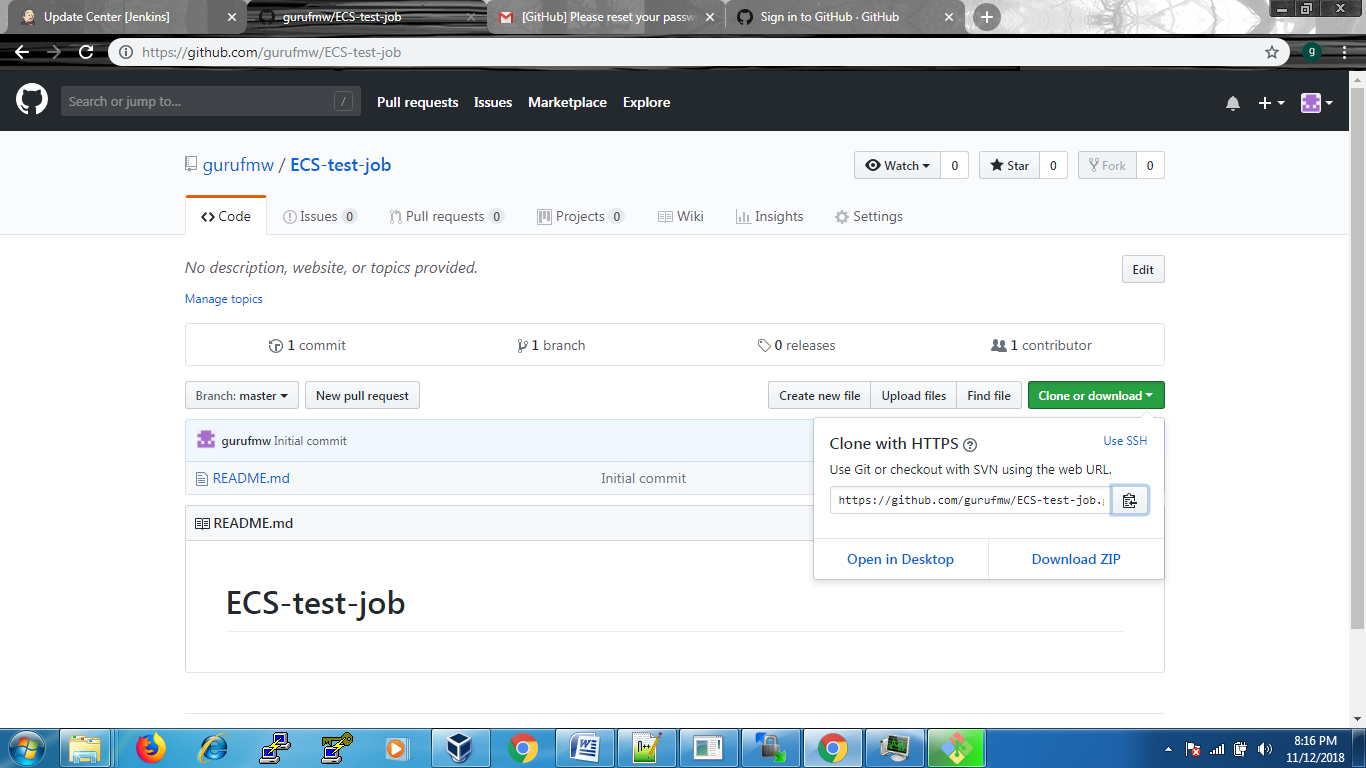




**CI-Job-Configuration**

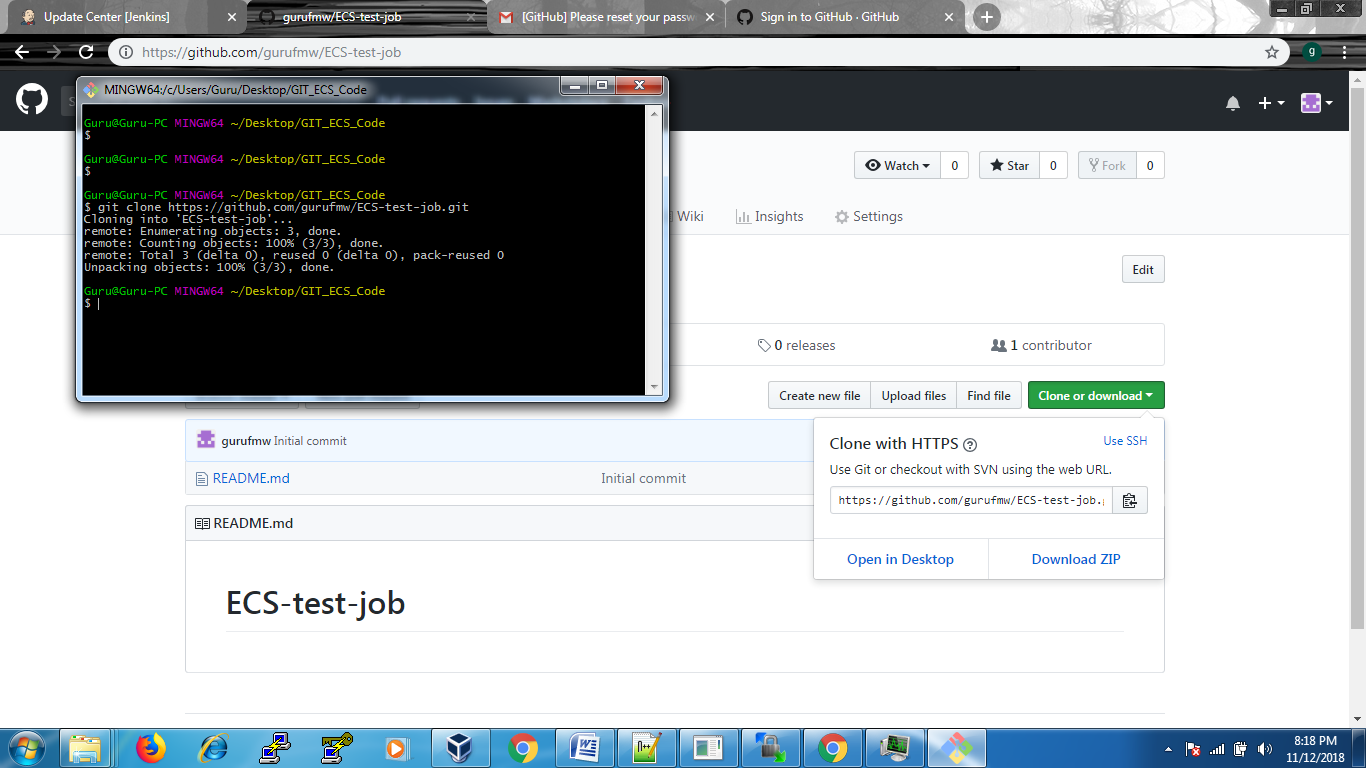
++crete the github account

++create the repository

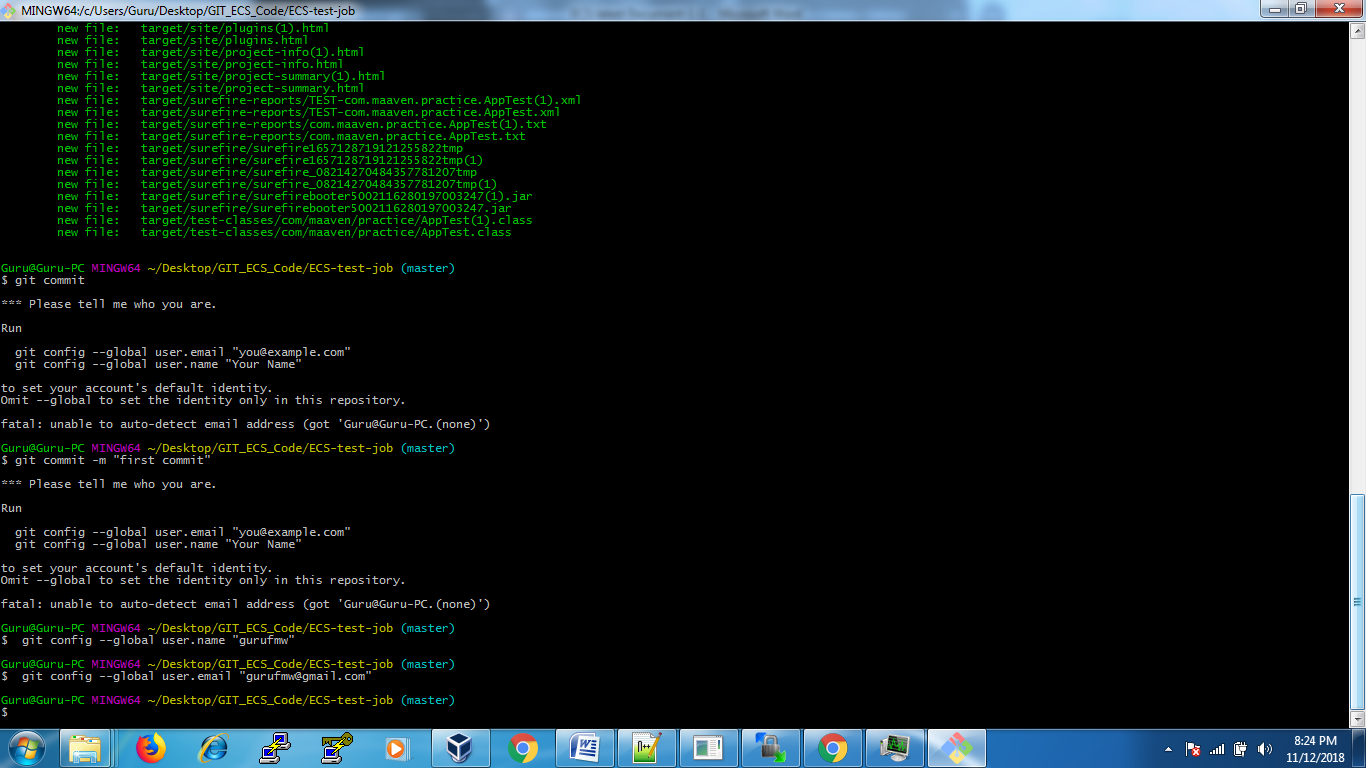


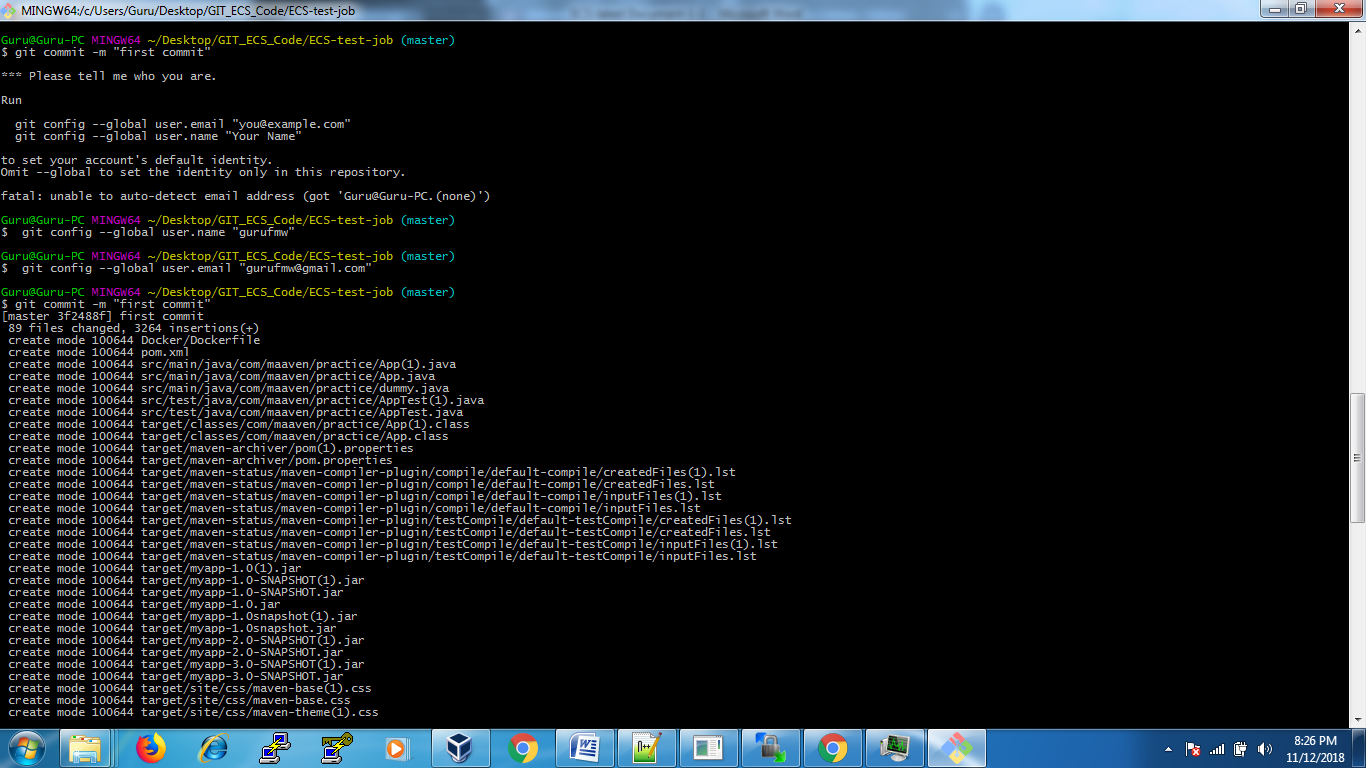
Click on the copy link

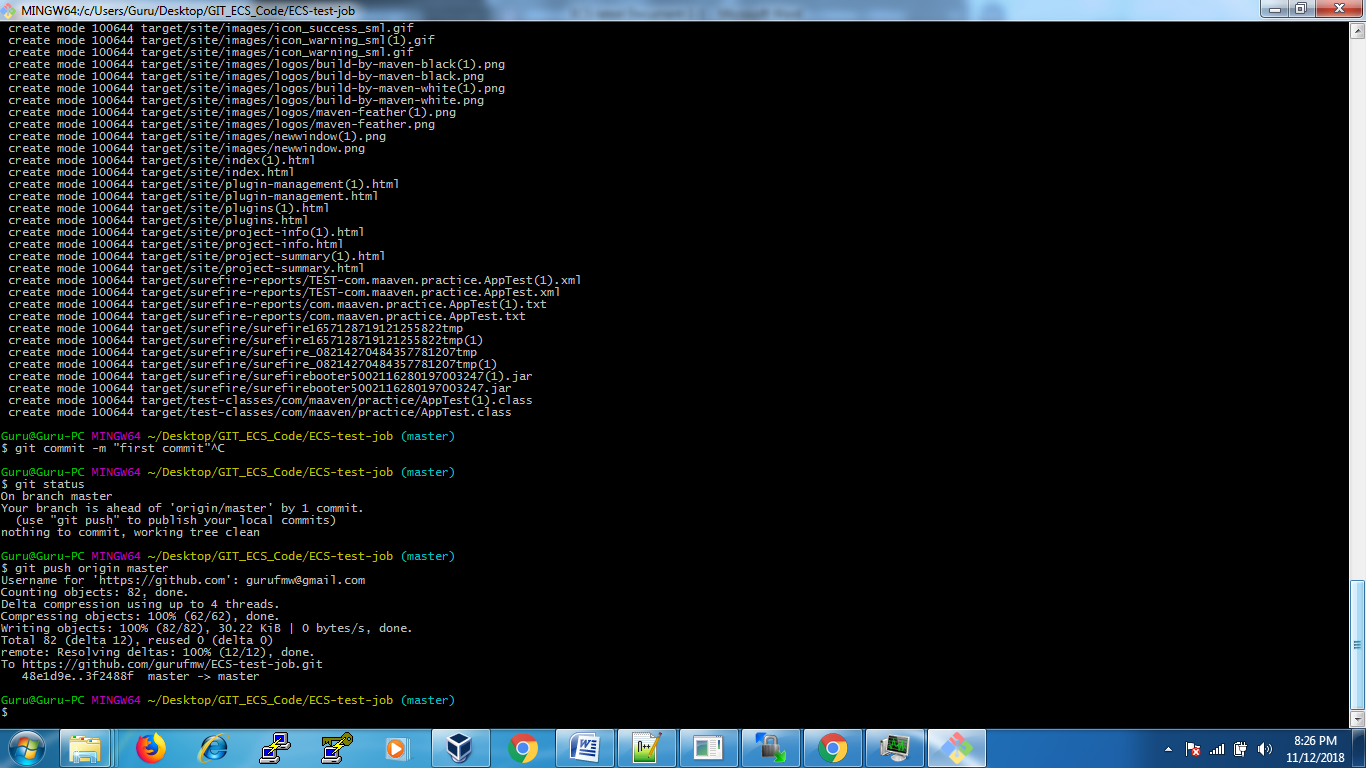
++create folder in desktop run the git



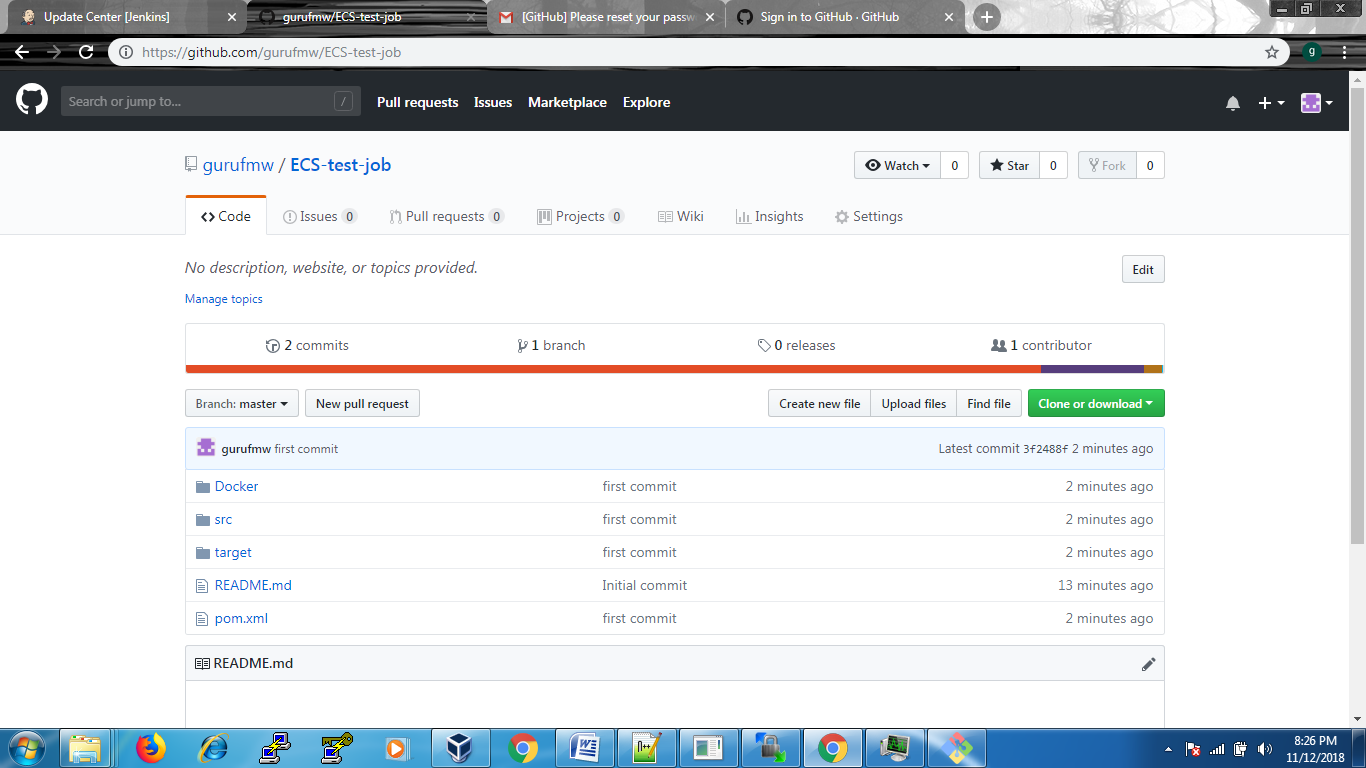




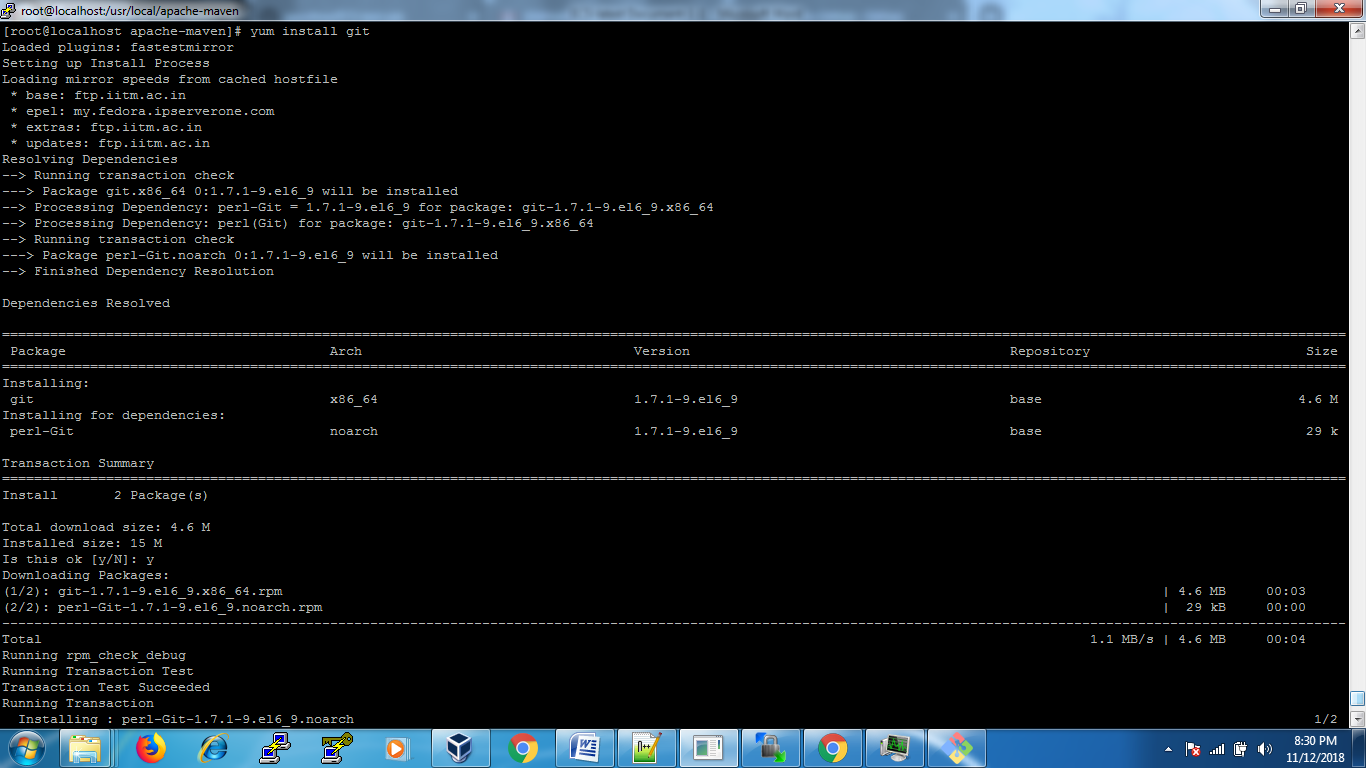




++u can check the code in git hub go and refresh github

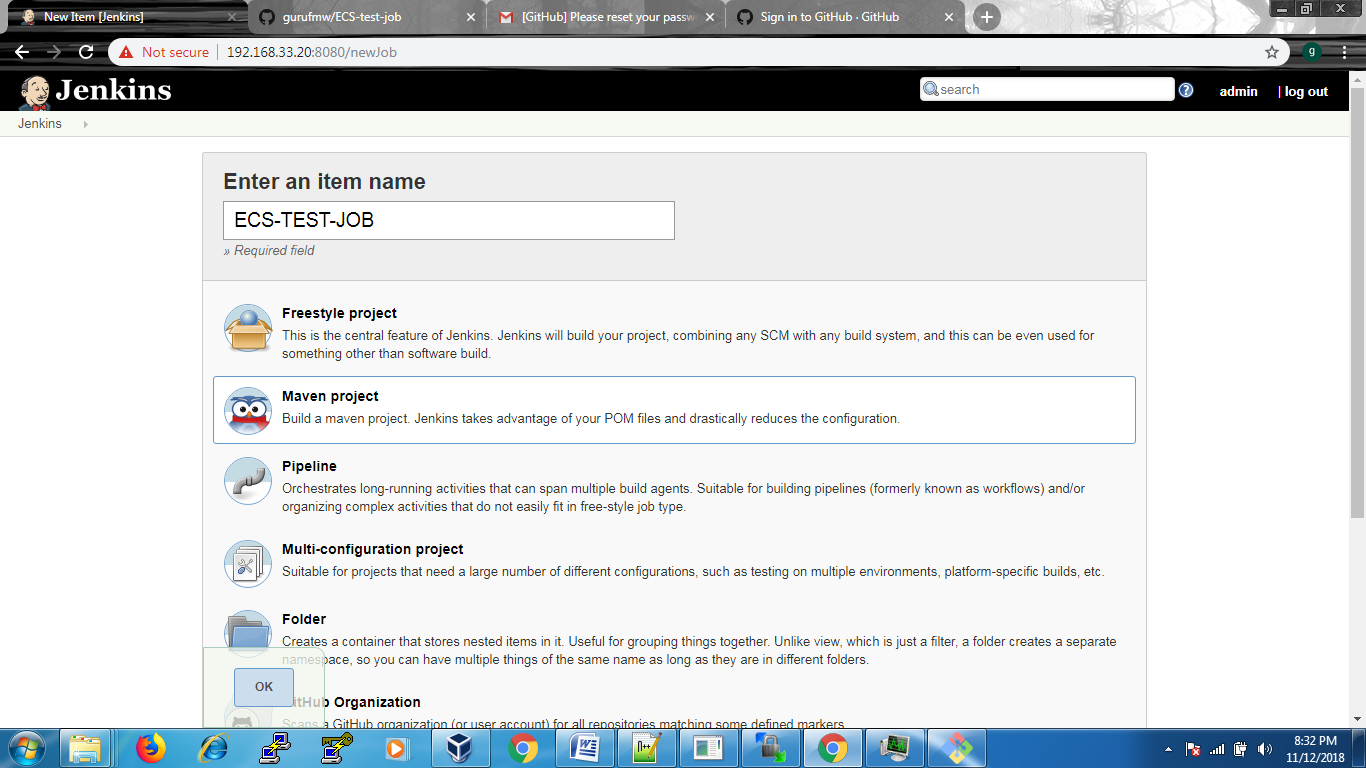


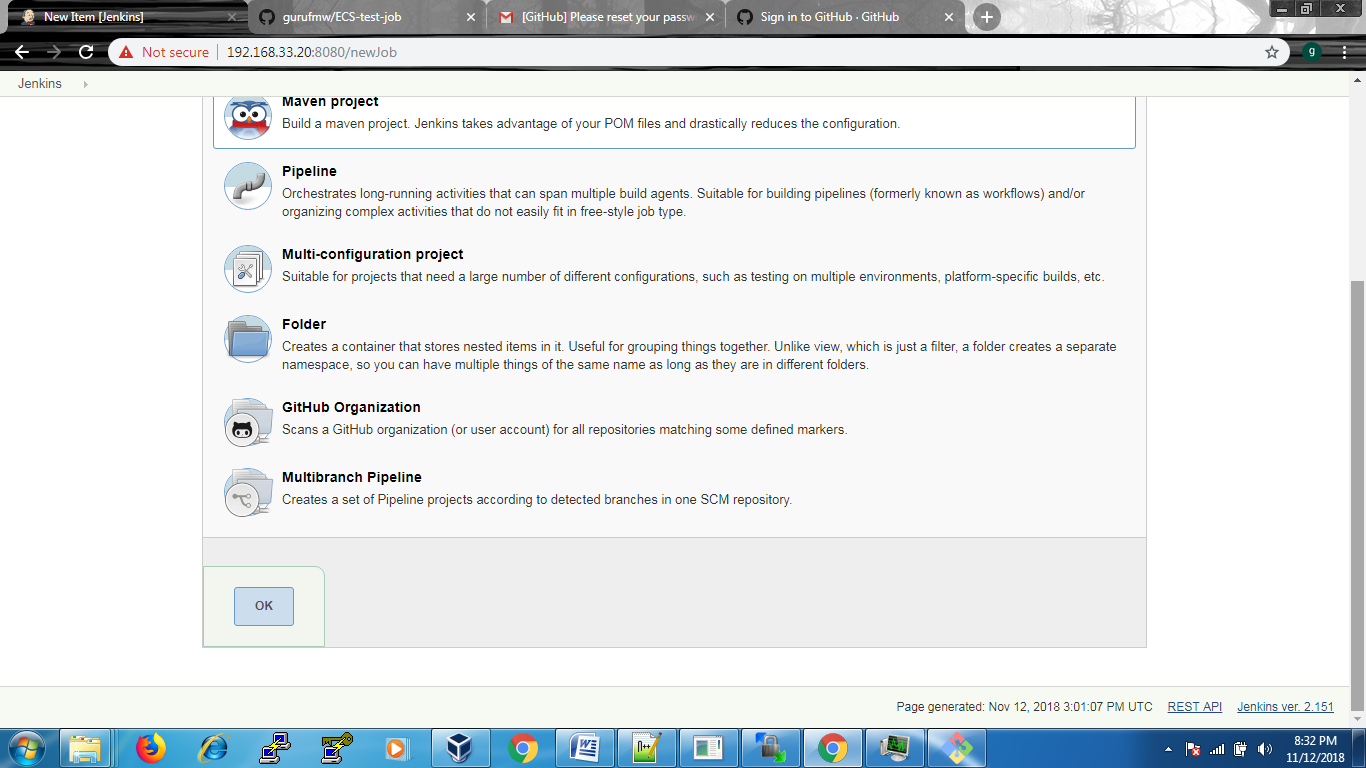
++install git on server 192.168.33.20

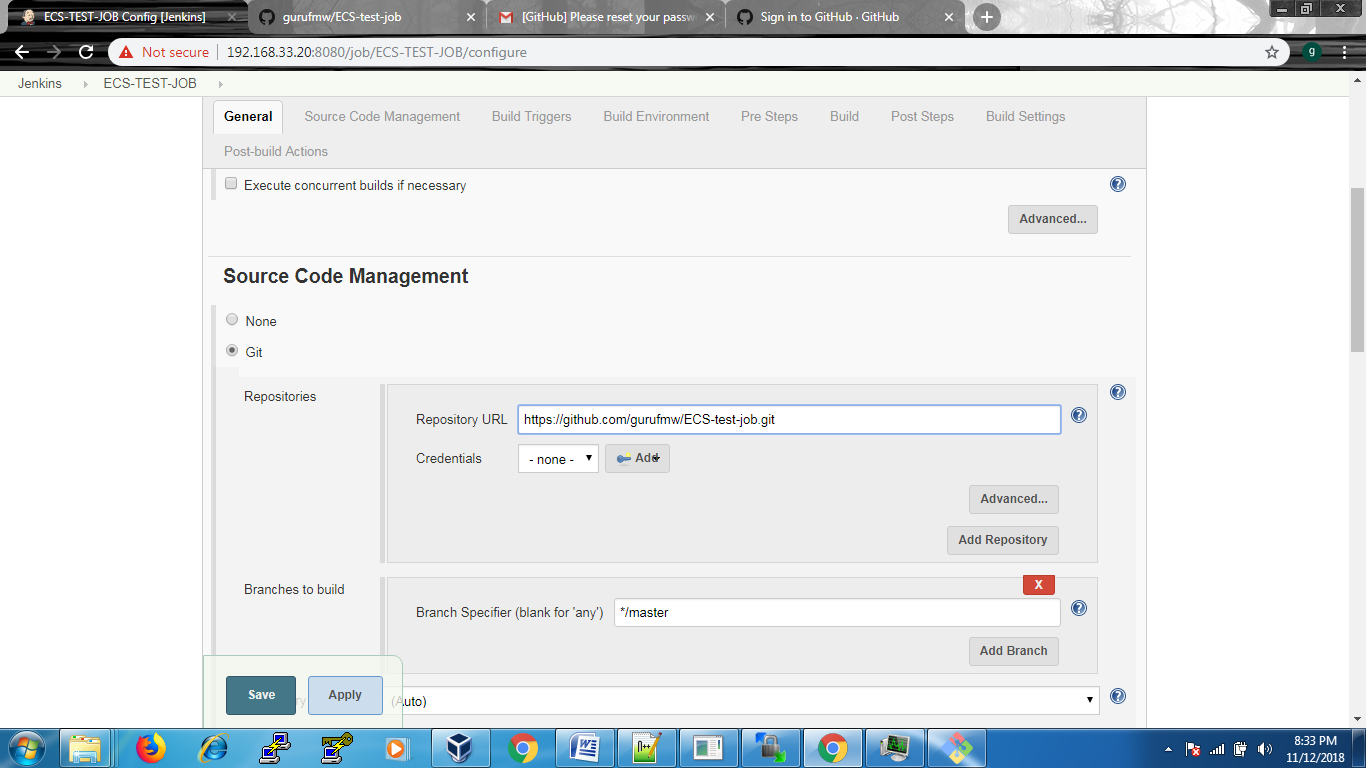


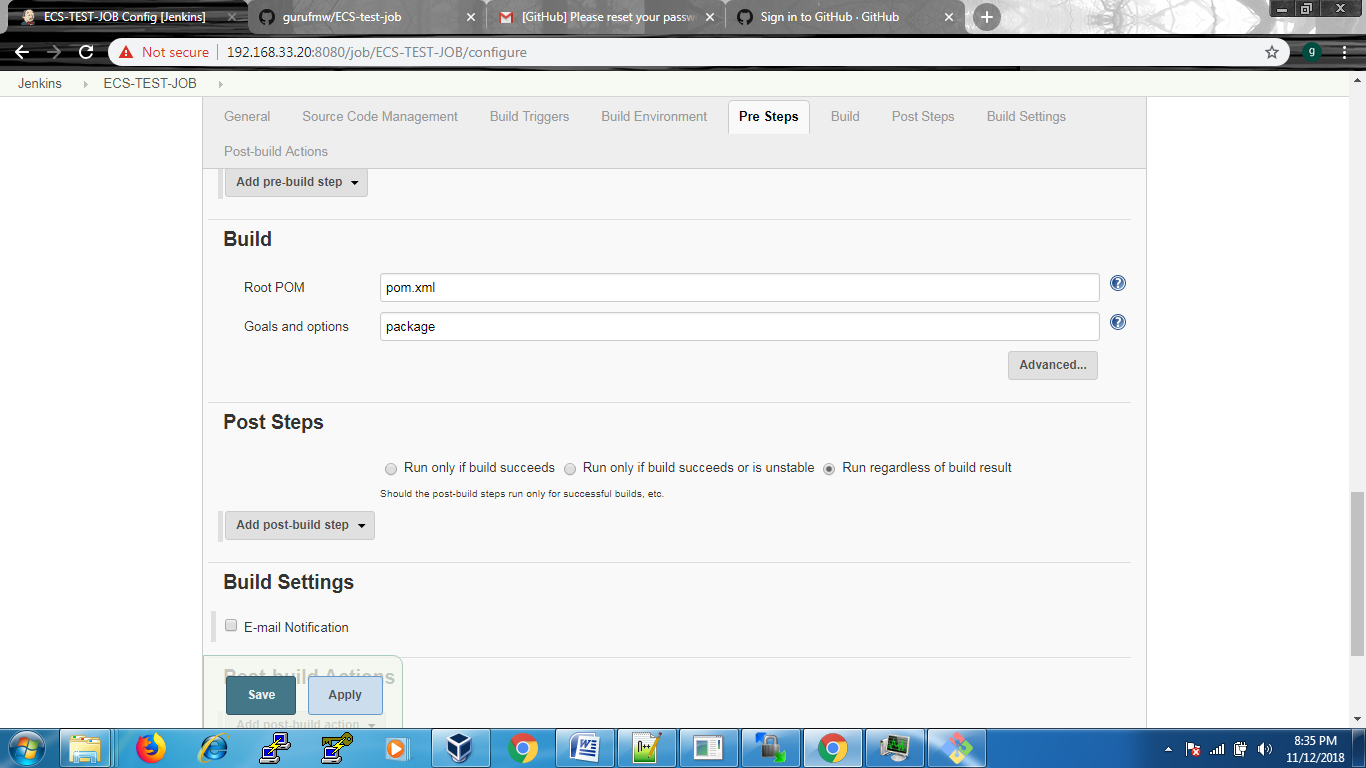
++Go to Jenkins

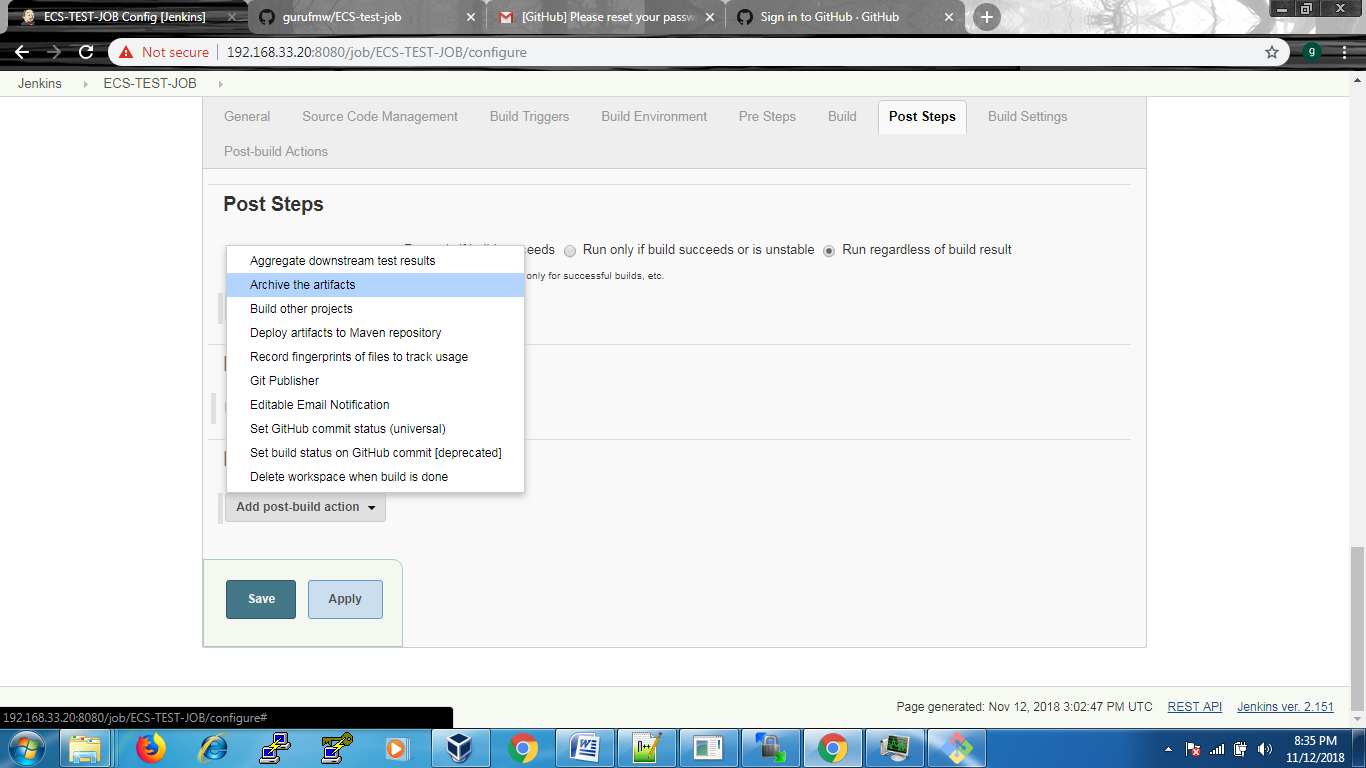
++create the job

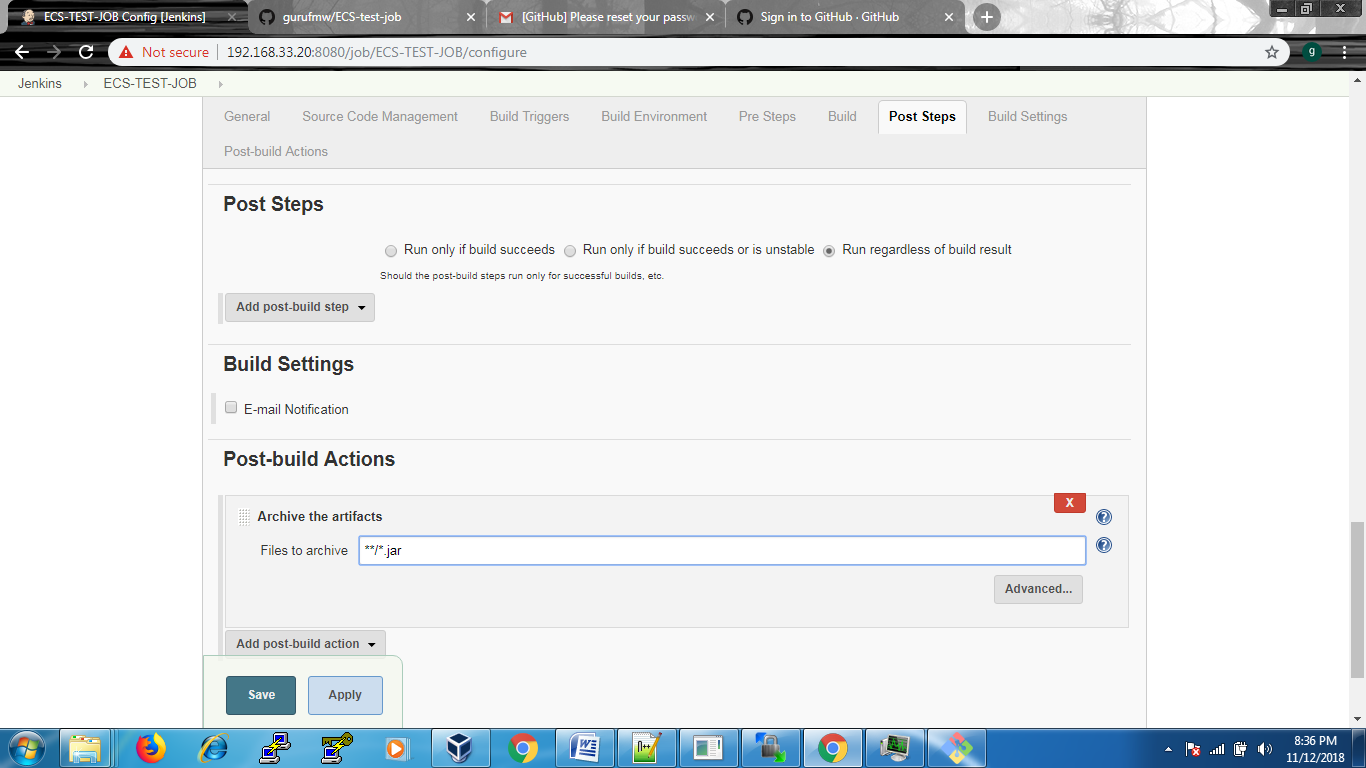






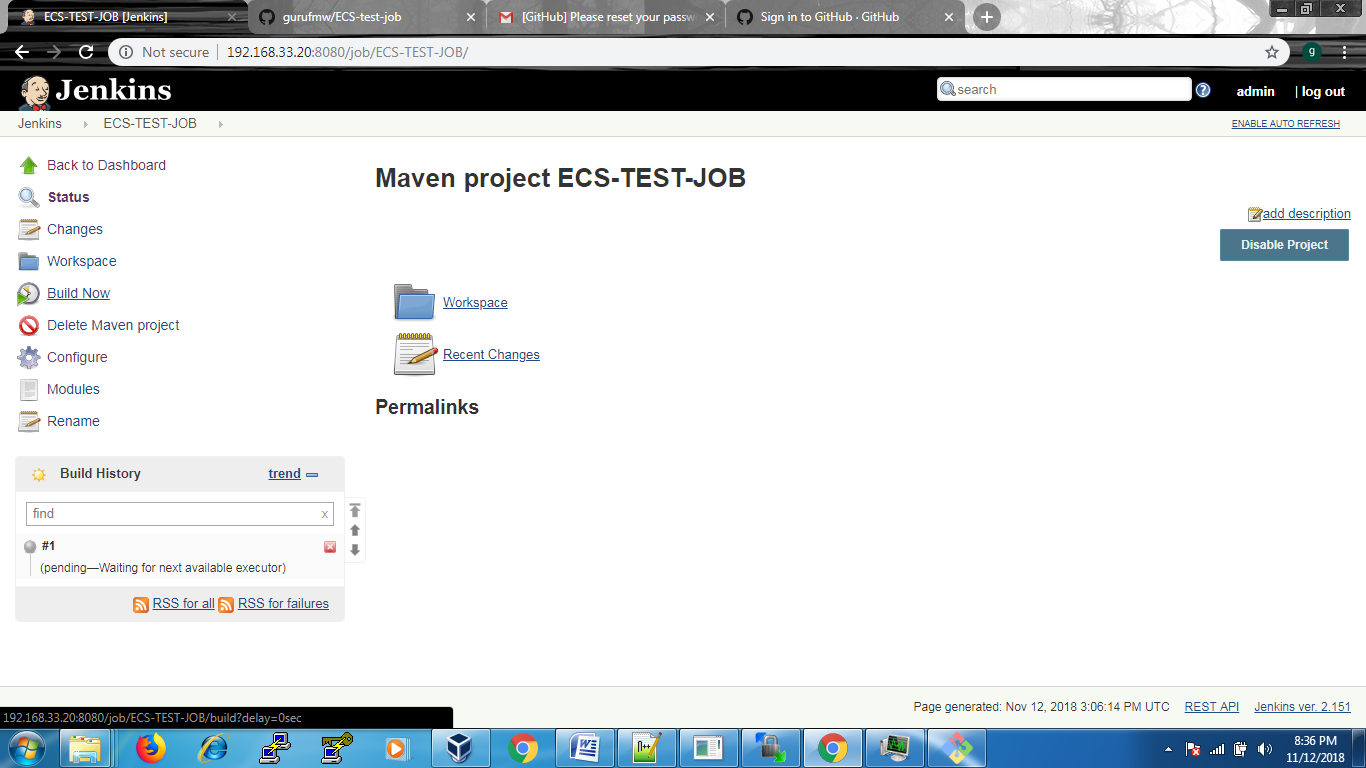


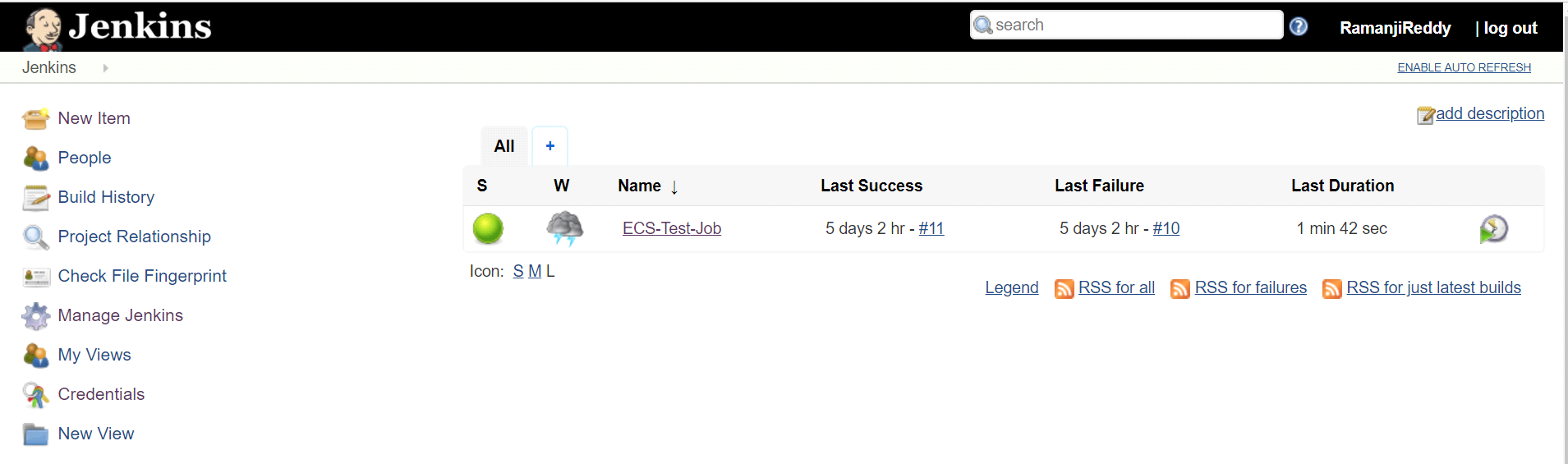




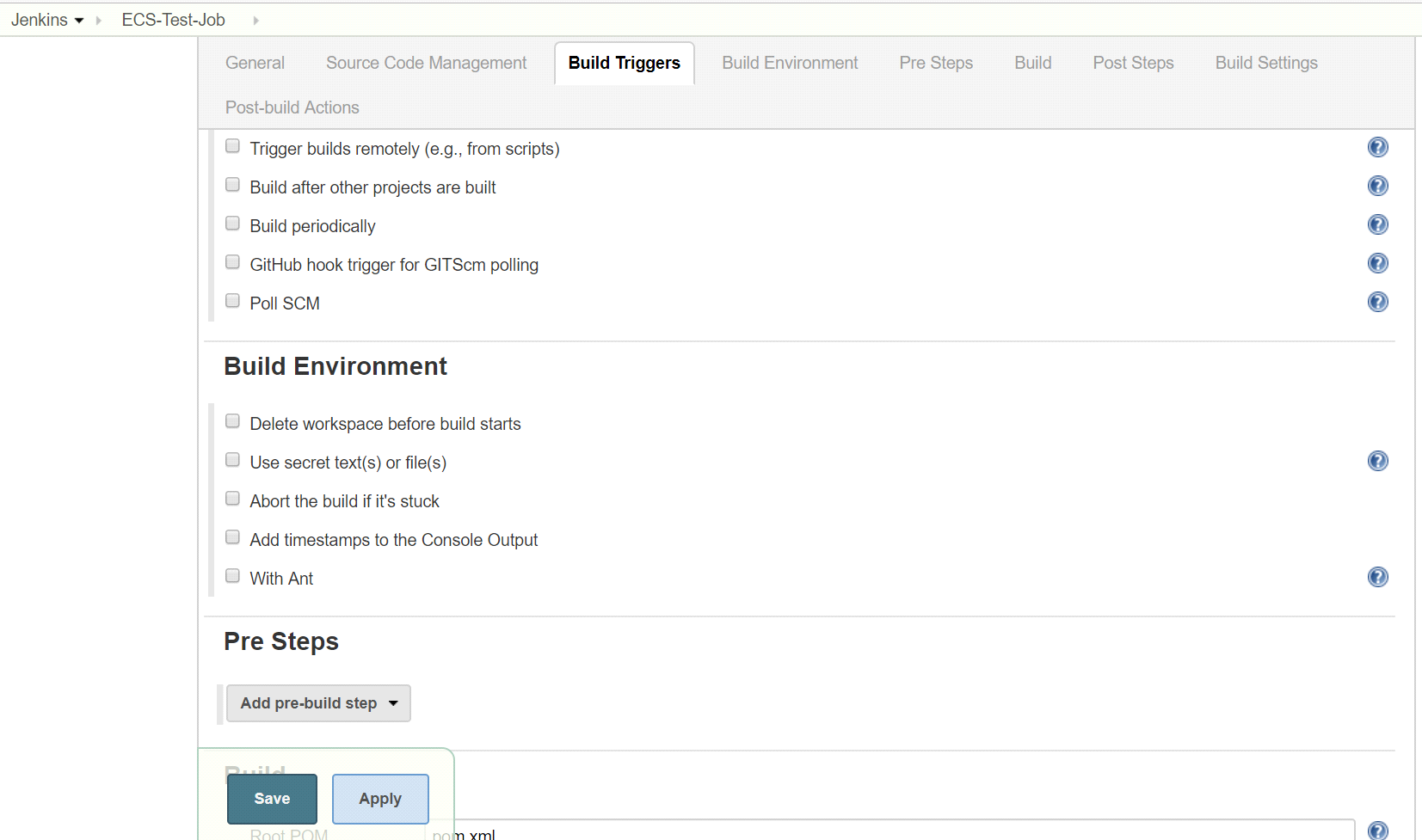
Save

++click build now









**SCRIPT:**

**cp /var/lib/jenkins/workspace/ecs-test-job/target/NumberGenerator-1.0.1-SNAPSHOT.jar /var/lib/jenkins/workspace/ecs-test-job/Docker**

**cd /var/lib/jenkins/workspace/ecs-test-job/Docker**

**export AWS\_ACCESS\_KEY\_ID=AKIAJHOJXWRNETVPVHKA**

**export AWS\_SECRET\_ACCESS\_KEY=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**

**export AWS\_REGION=us-east-2**

**export AWS\_ACC\_ID=609857339515**

**export AWS\_ECR\_REPO\_NAME=ecsrepo**

**eval $(aws ecr get-login --region us-east-2 | sed 's|https://||')**

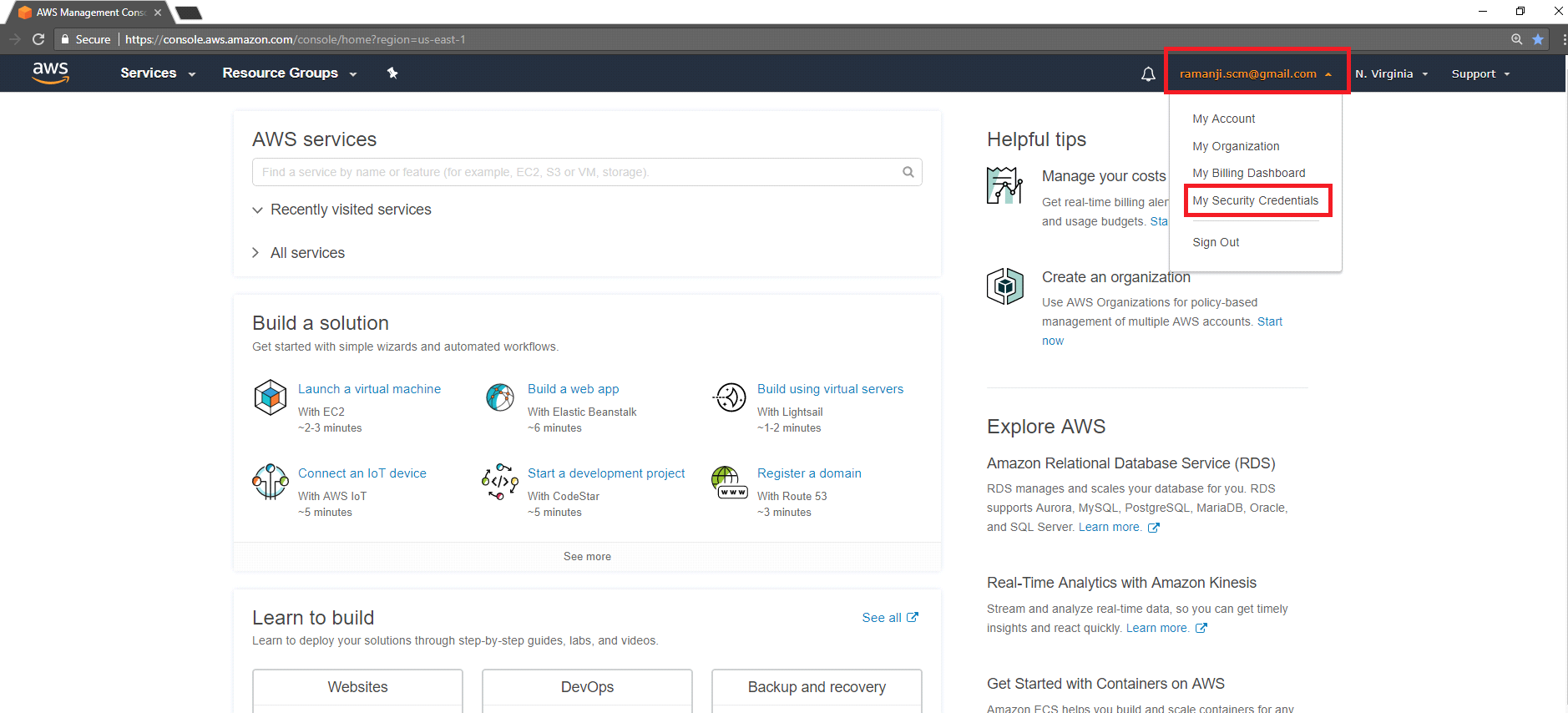
**docker build -t ecsrepo\_app .**

**docker tag ecsrepo\_app $AWS\_ACC\_ID.dkr.ecr.us-east-2.amazonaws.com/$AWS\_ECR\_REPO\_NAME:latest**

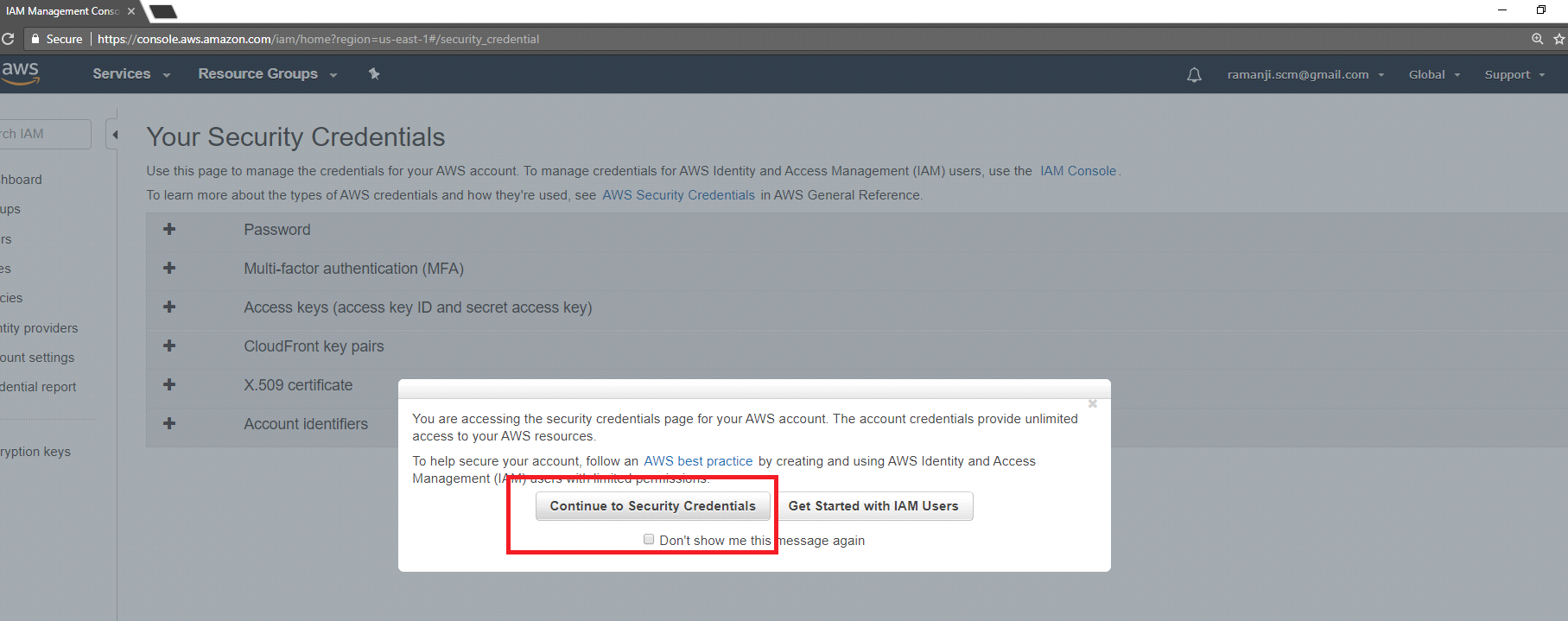
**docker push $AWS\_ACC\_ID.dkr.ecr.us-east-2.amazonaws.com/$AWS\_ECR\_REPO\_NAME:latest**

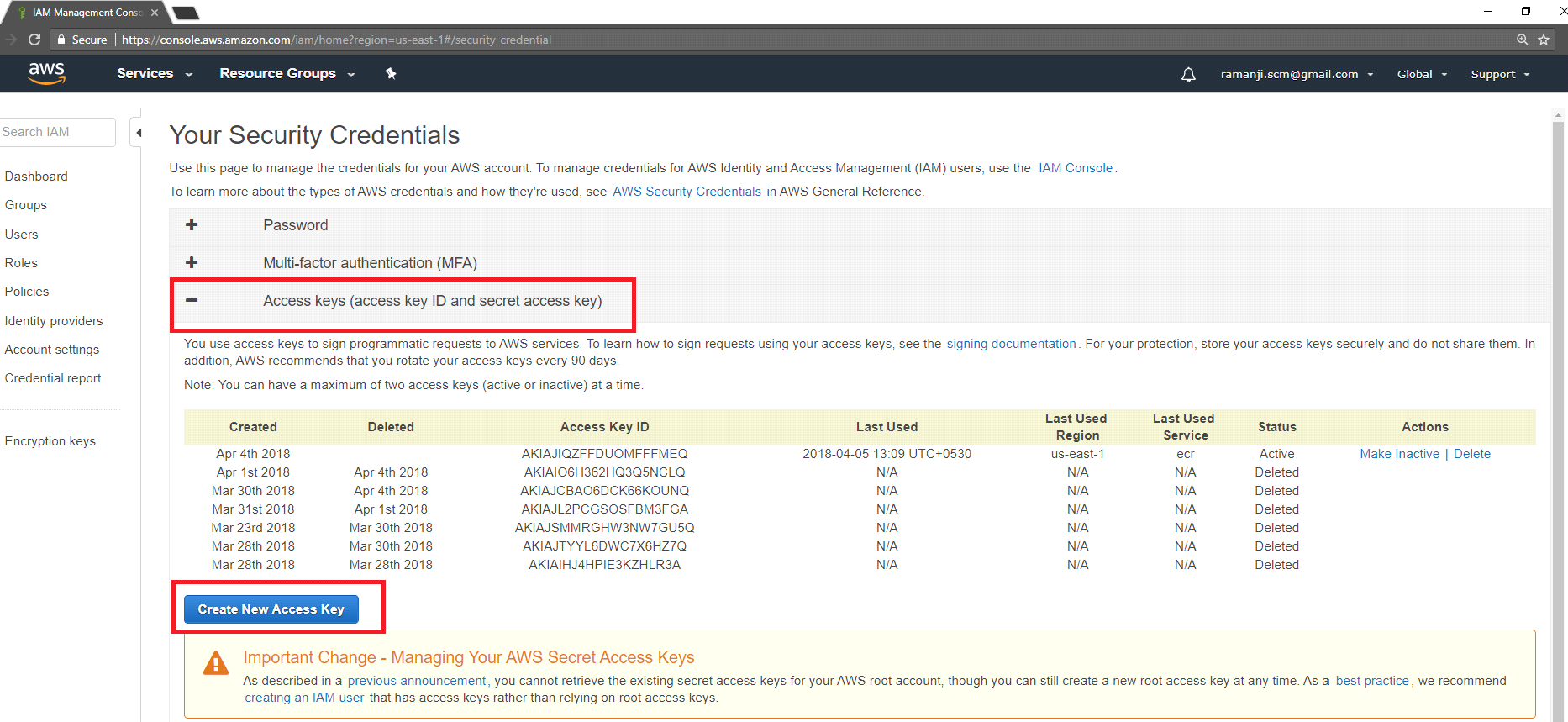
**Access Key and Secure Key:**

* Open Aws account and click my security credentials.

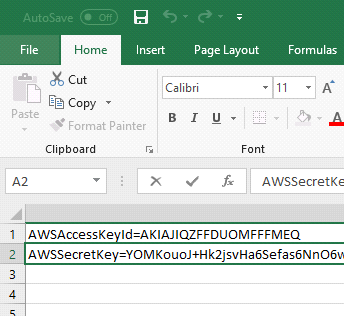


* Click on continue security credentials and download the below key.

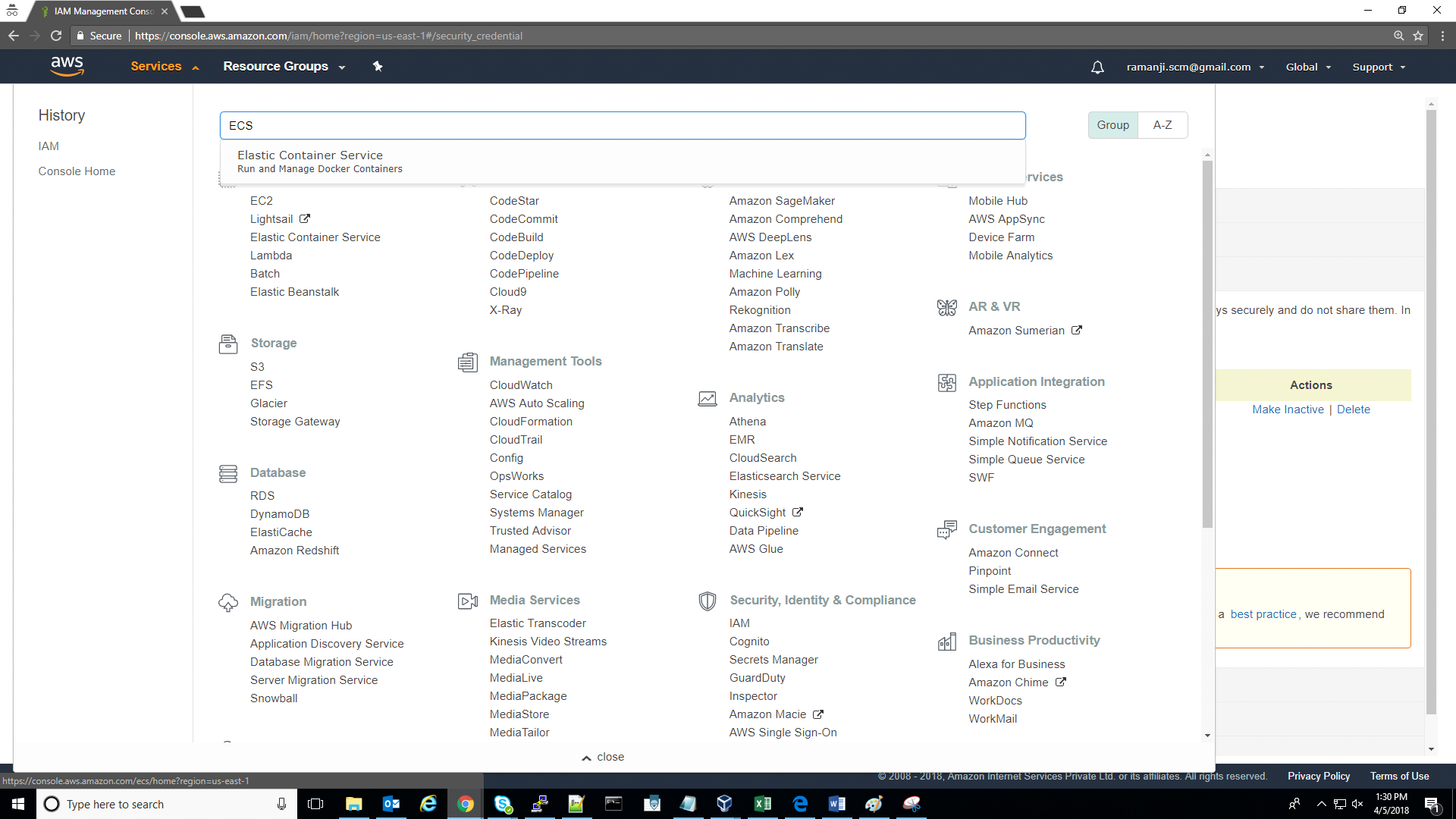
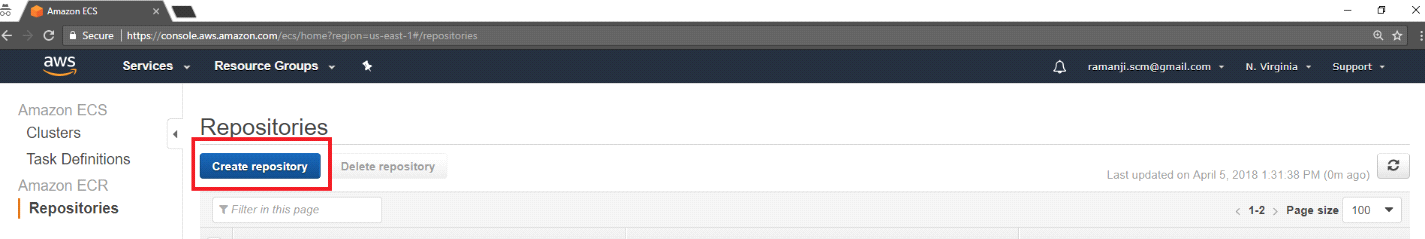


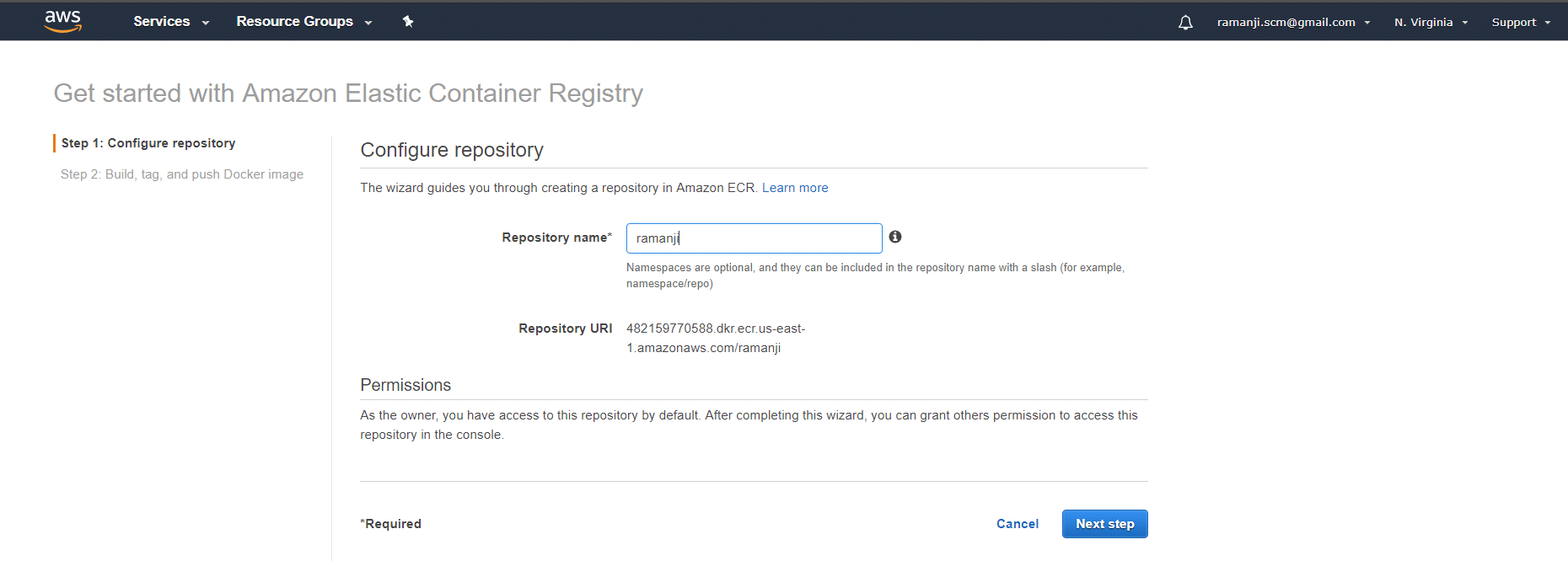


* Once you click on create new access key you will get the one excel sheet oen that copy the access and Secret Key.

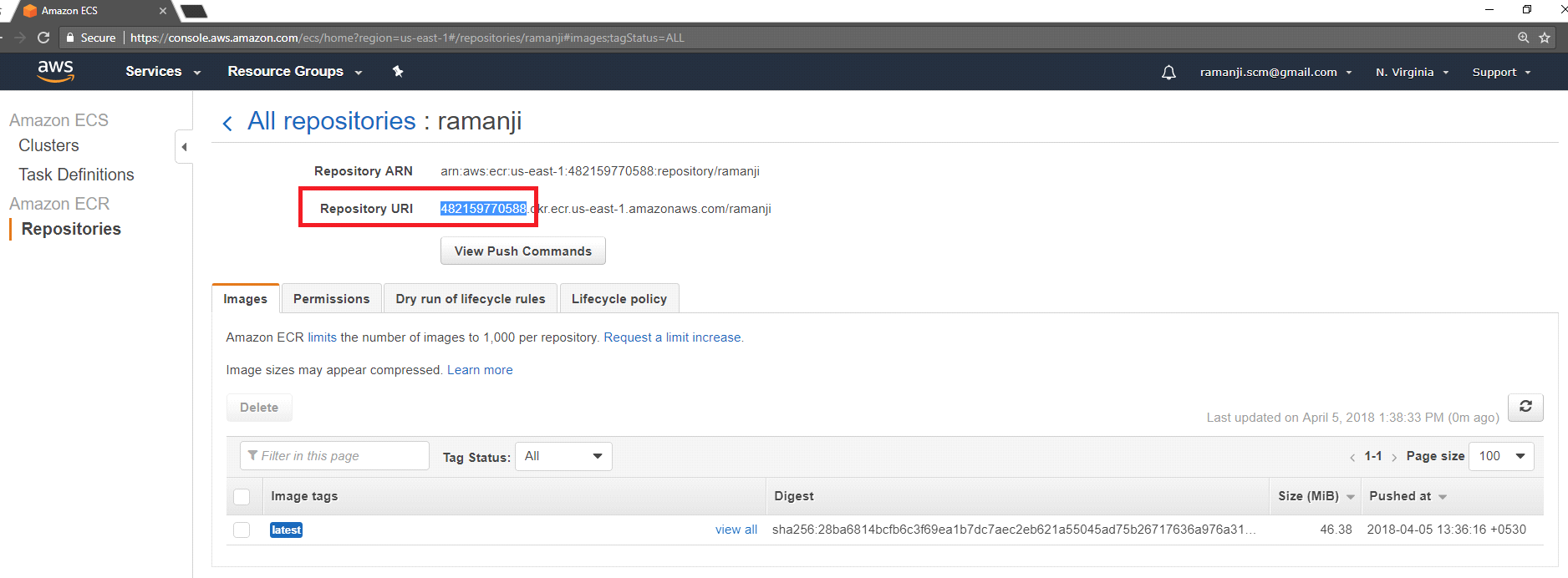


**Note:**

* In script I have indicated Ramanji in Red color that we need to create in Aws account using the ECS service.
* 
* 



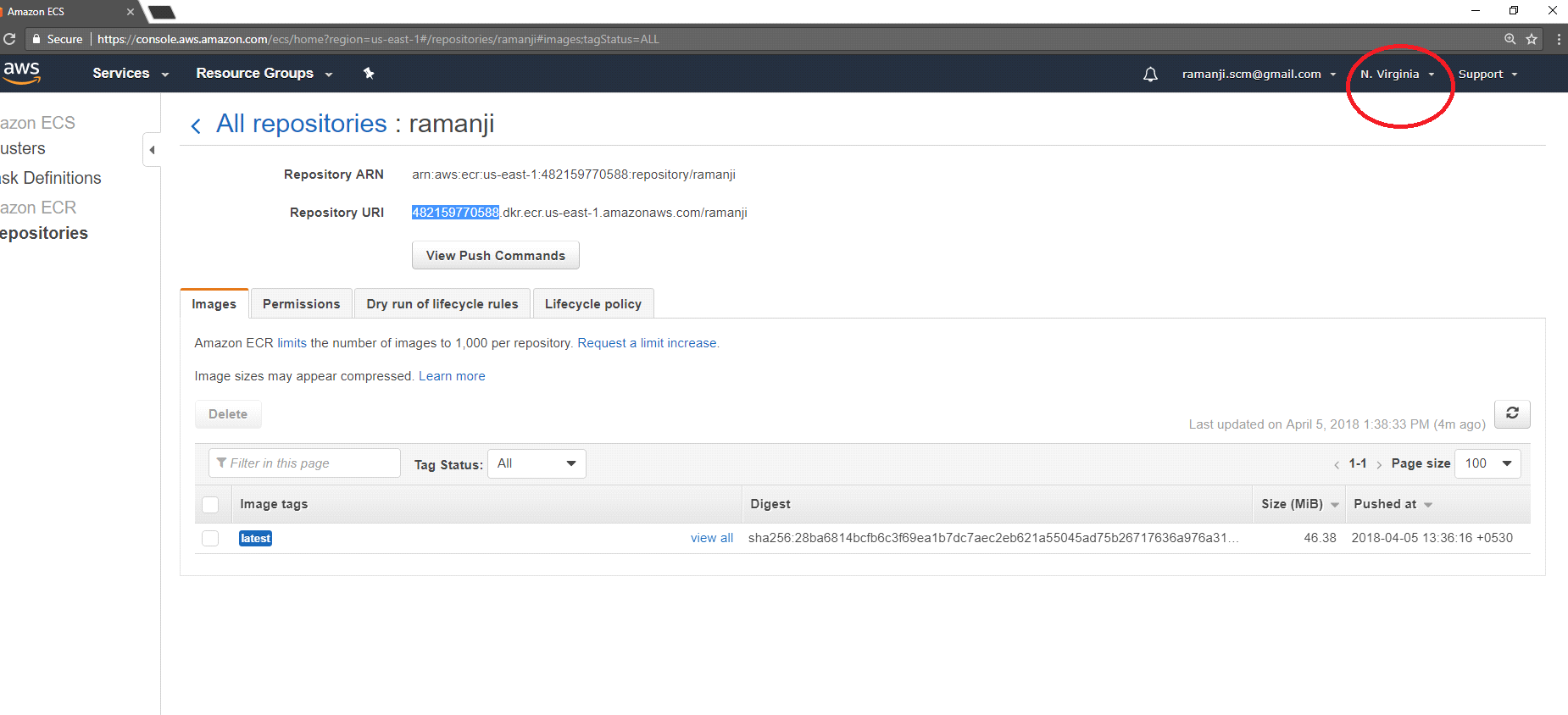
* Repository we need to copy and paste in shell script.



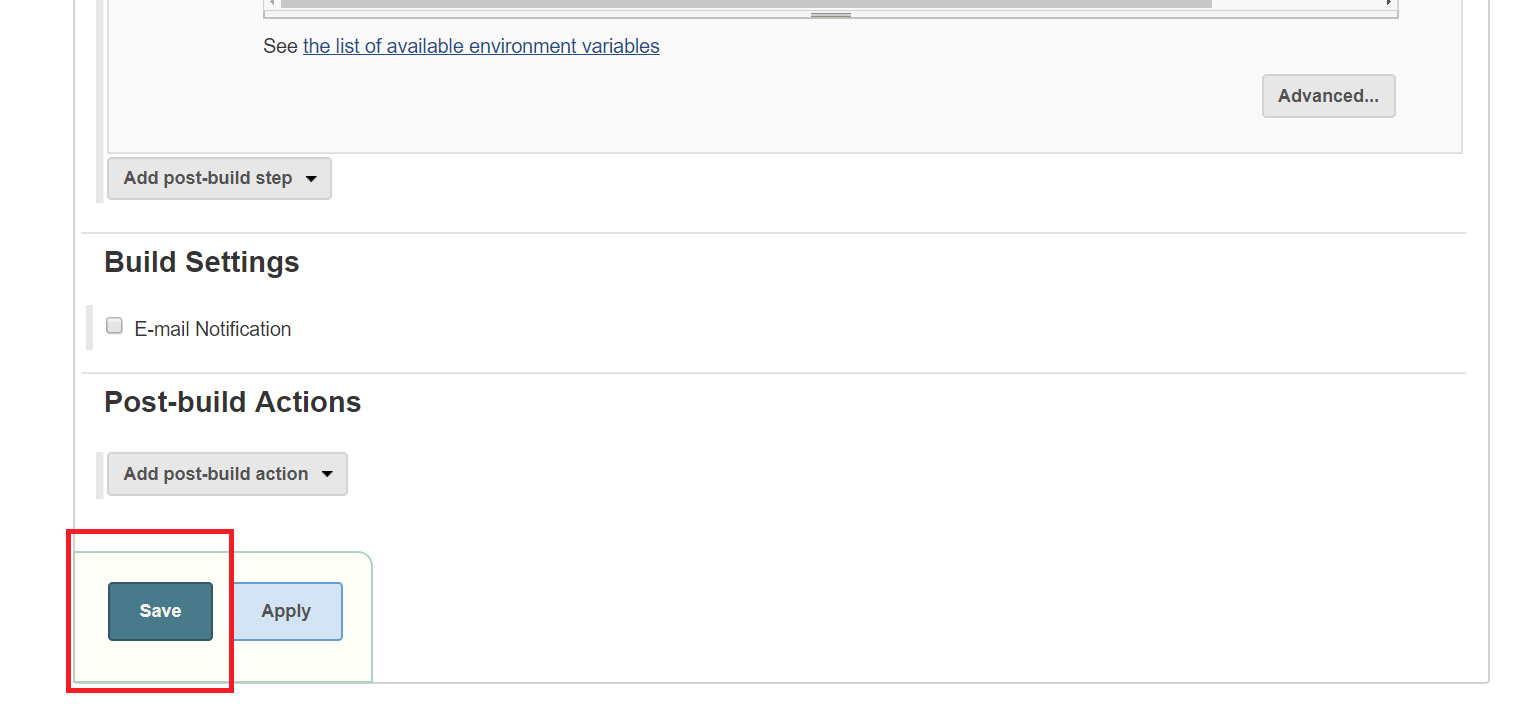
Note:

* Select the region N.virginia location because you see in script I am using **us-east-1**.

export AWS\_REGION=us-east-1



* Then Save the configuration and run the build.



Run below commands in putty:

Before execute shell install below cmds

curl "<https://bootstrap.pypa.io/2.6/get-pip.py>" -o "get-pip.py"

python get-pip.py

pip install awscli

aws configure

Suppose you build got fail and showing the below error then run the below command in server.

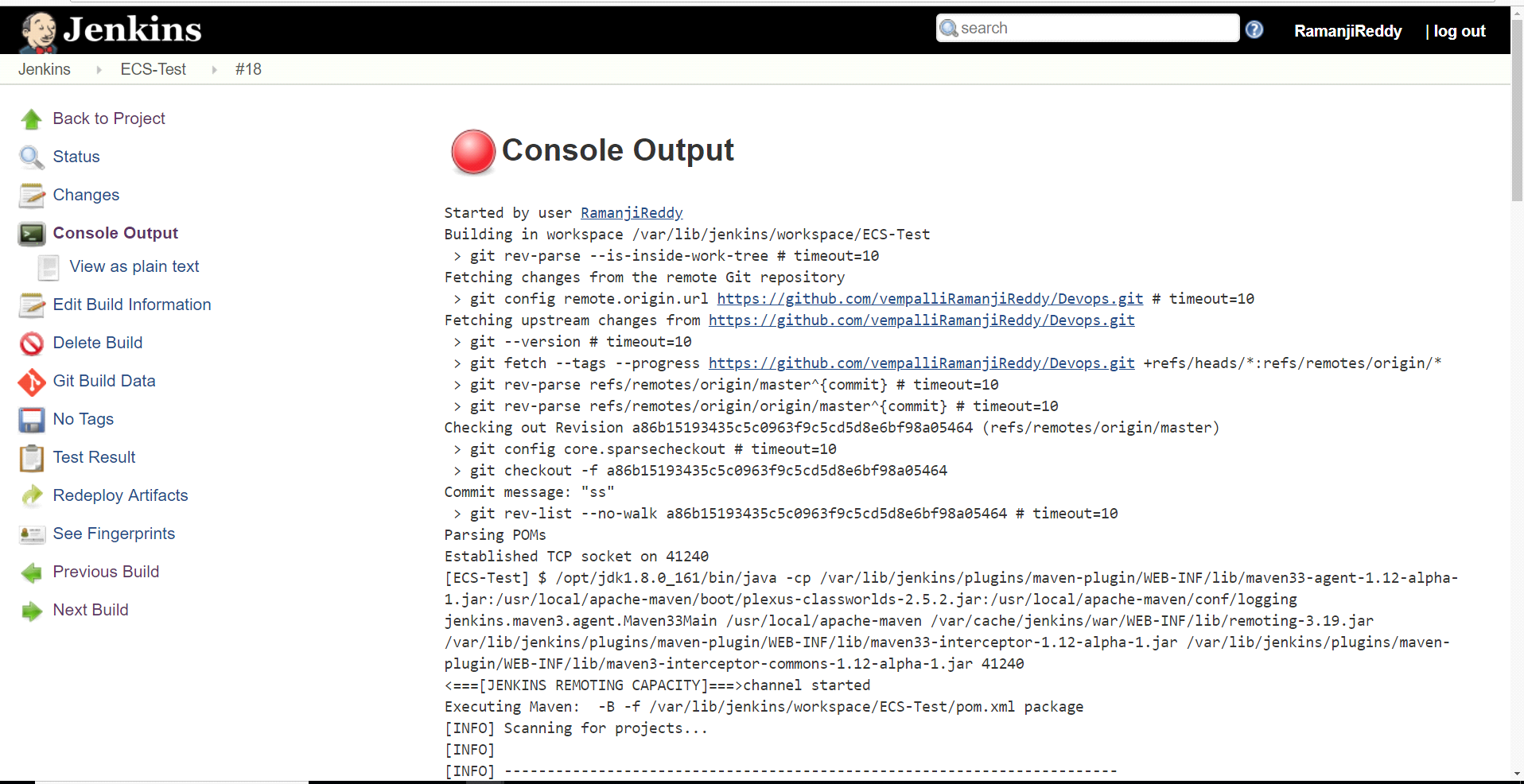
* sudo chmod 777 /var/run/docker.sock

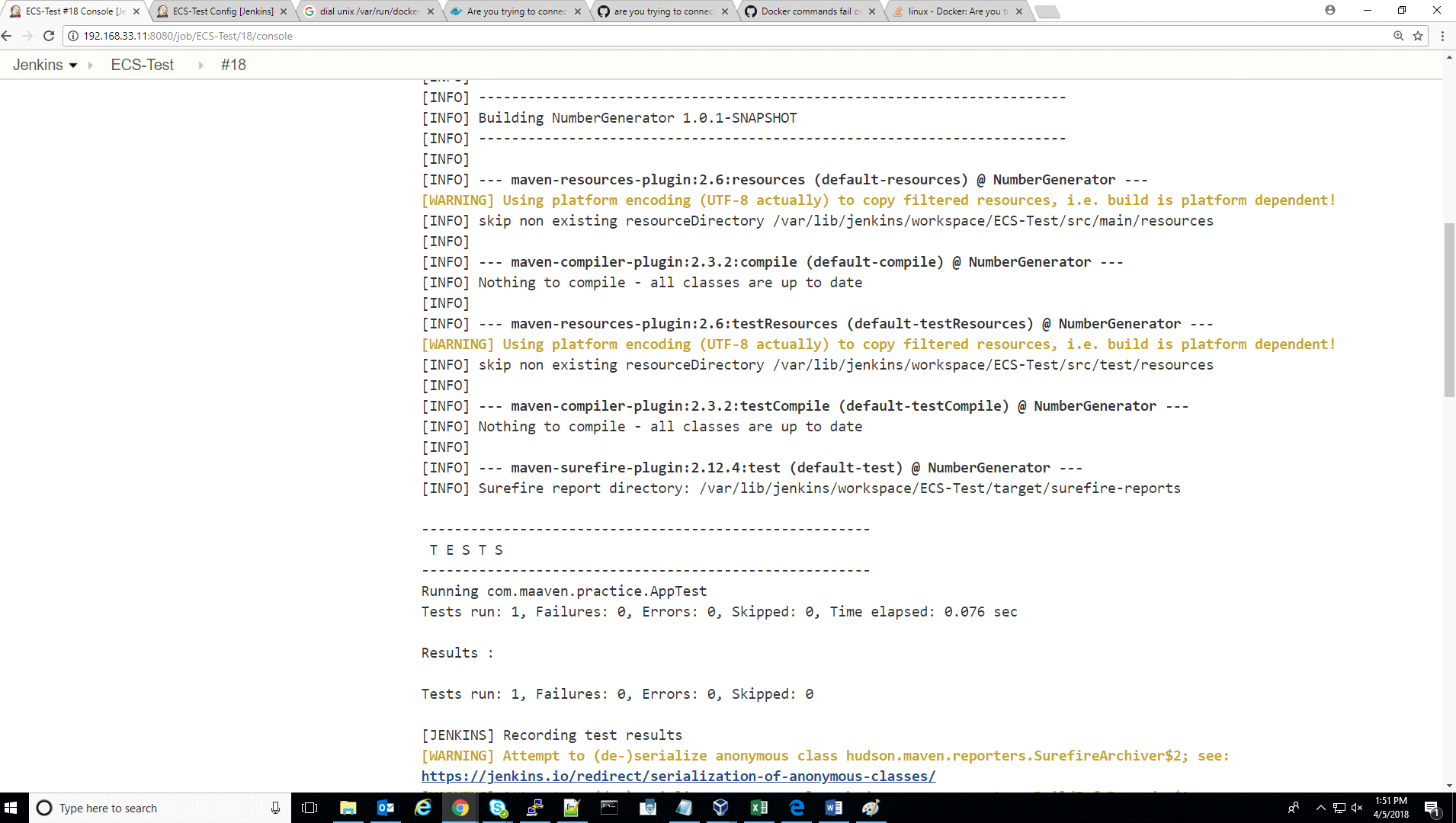
**Error screenshot:**

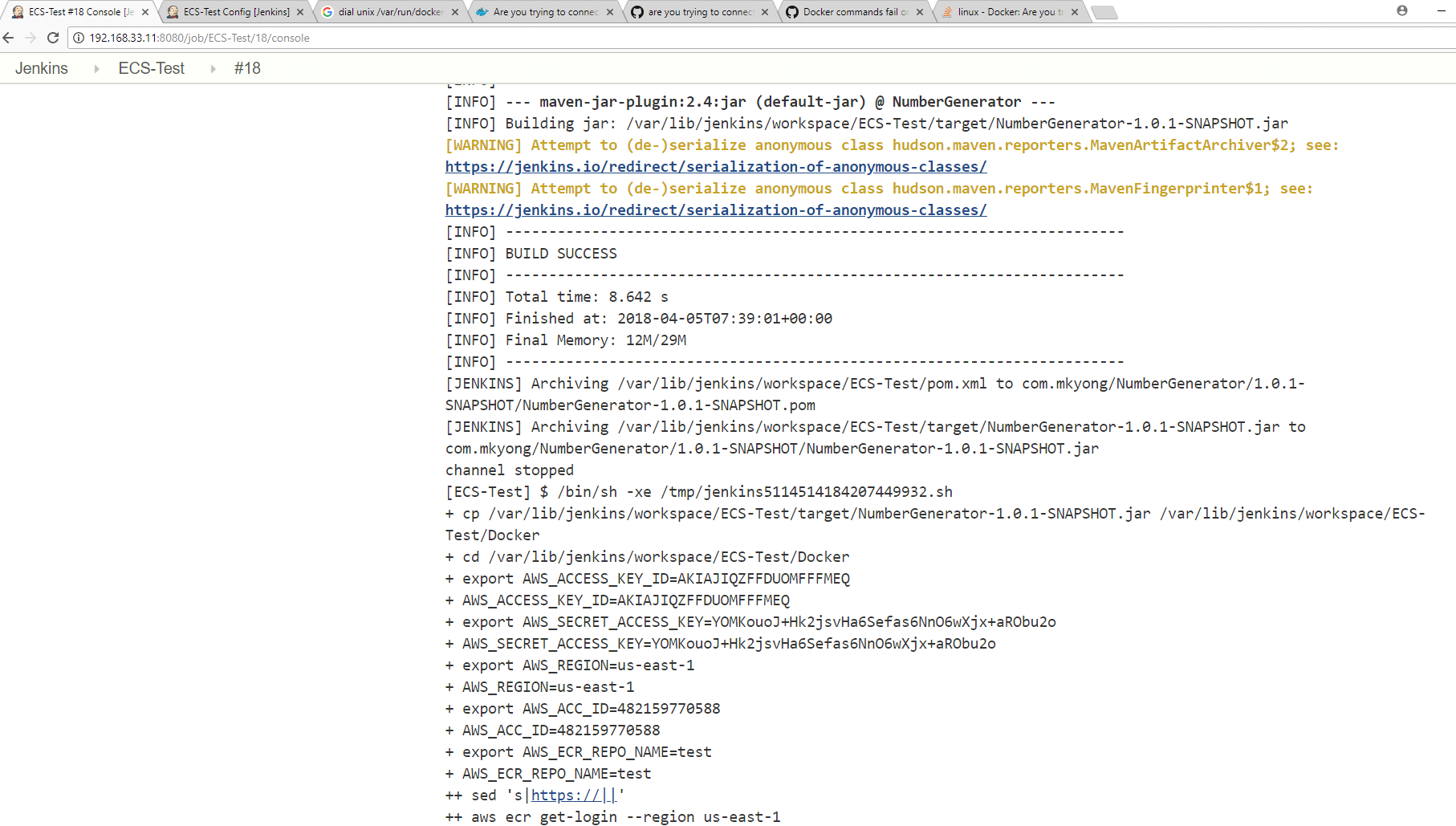


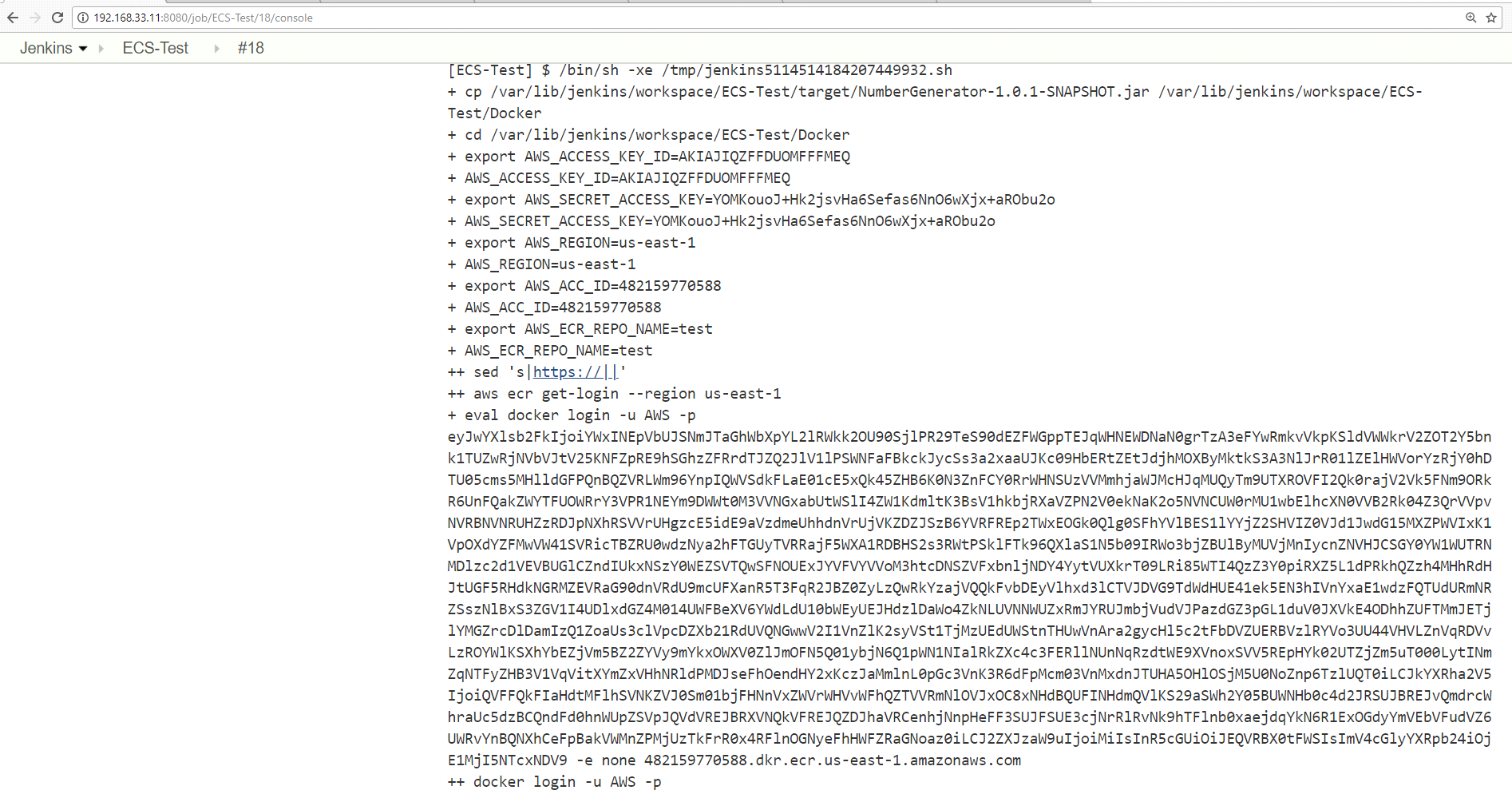
Suppose you build got fail and showing the below error then run the below command in server.

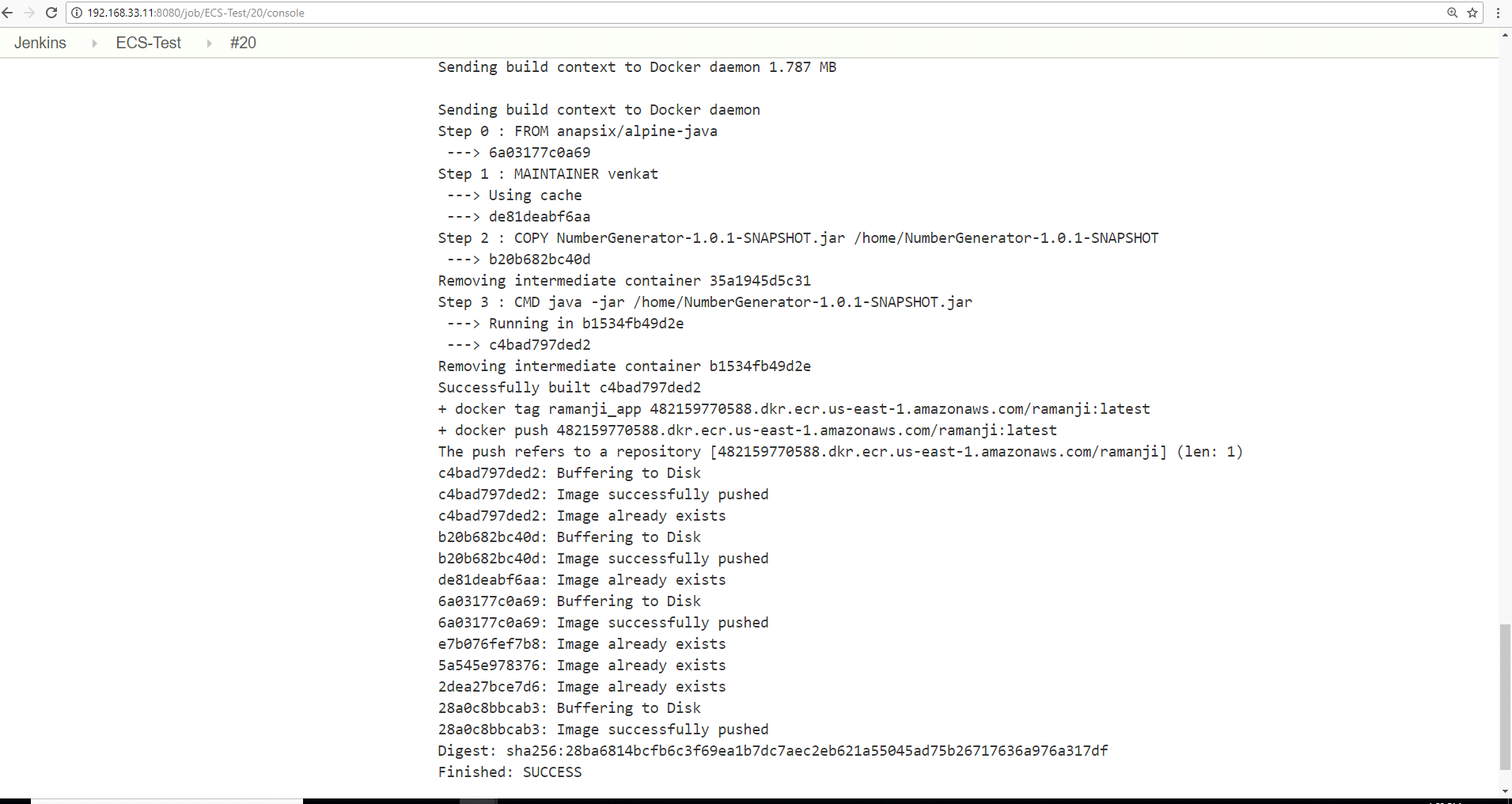
* sudo chmod 777 /var/run/docker.sock
* Once you fixed above error click on Build Now then you will get the below logs.



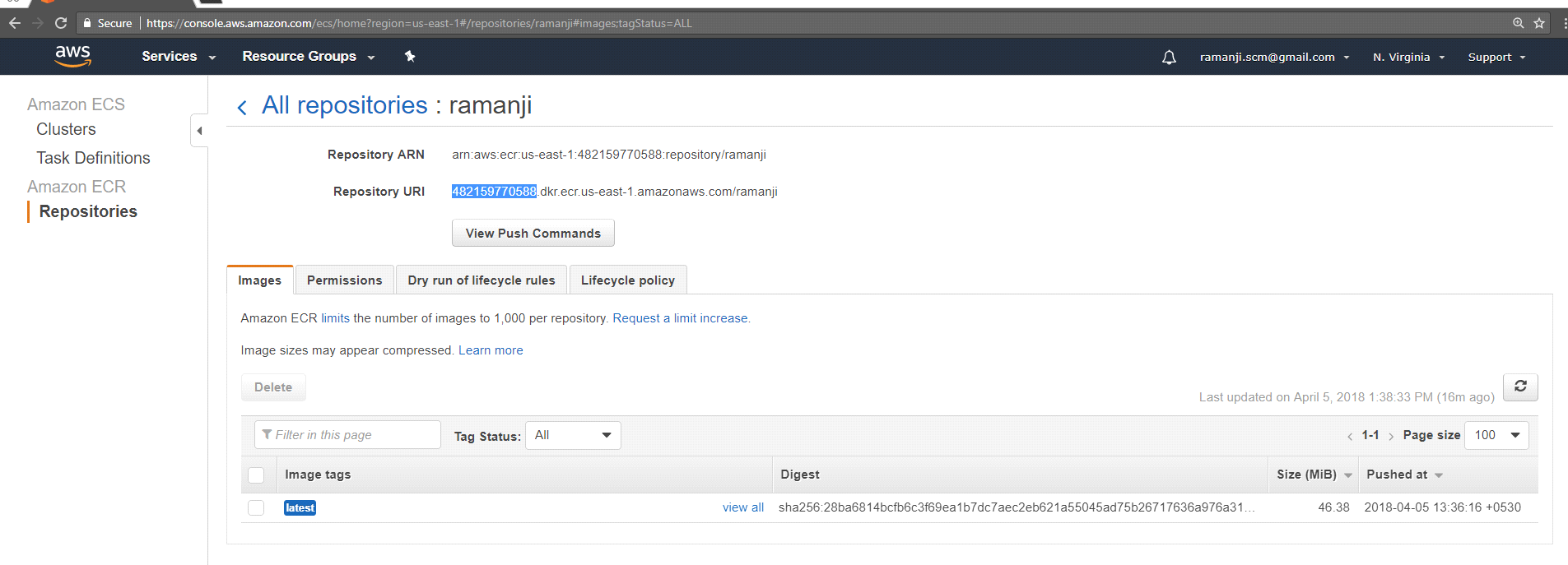








* After that go to AWS account and check the ECS repository then you will get latest Image.



**InCase Any EOF Error showing to run the commands**

**yum -y update**

**yum -y install python-pip**

**curl "https://bootstrap.pypa.io/get-pip.py" -o "get-pip.py"**

**python get-pip.py**

**pip install boto3 -------> python package**

**pip install awscli**

**pip install awscli --upgrade**

**pip install boto**

**yum install python**