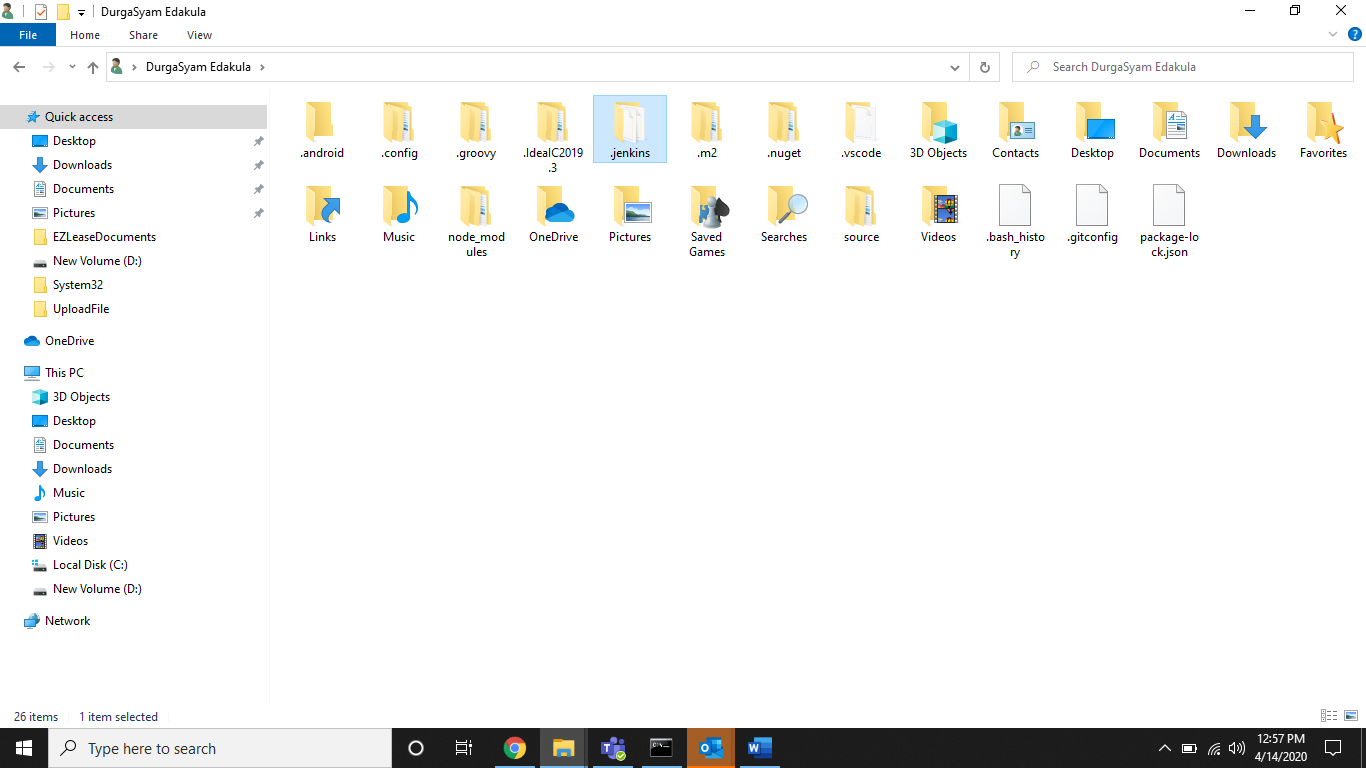
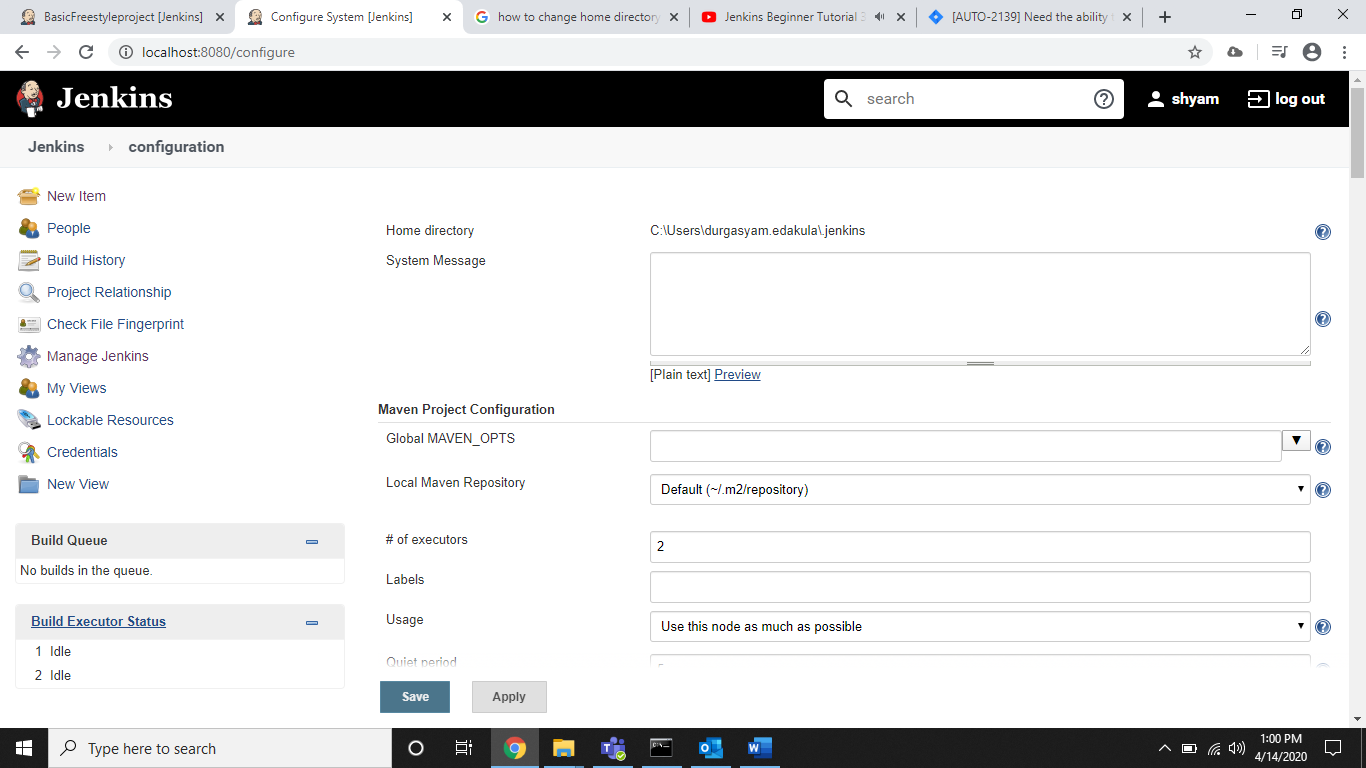
**Jenkins Document:**

**How To change default Home directory in Jenkins:**

* By default,.jenkins will be installed in user profile directory





* It is not recommended to keep .jenkins in User propfile directory there is chance of security issues may raise while working with remote connections etc and to provide enough space for Jenkins we need to keep them in some other drives like D:\\JenkinsDemo\.jenkins

To change Jenkins Home directory

1. Check your current home directory
2. Create a new folder (Which will be new Home dir)
3. Copy all data from old directory to new directory
4. Change Env variable--JENKINS\_HOME and set to new Directory
5. Restart Jenkins

To Set JENKINS\_HOME by Jenkins.war file

* Navigate to a folder where we have Jenkins.war file
* set JENKINS\_HOME=D:\ some-folder-name
* java -jar jenkins.war --httpPort=8091 -path=D:\<some-folder-name>\

Ref:

<https://www.youtube.com/watch?v=m47MWSXNslg&list=PLhW3qG5bs-L_ZCOA4zNPSoGbnVQ-rp_dG&index=3>

<https://stackoverflow.com/questions/28034663/relocating-jenkins-home-on-windows-when-installed-as-service>

**Number of Ways to Install plugin in Jenkins:**

Approach 1:

* Navigate to manage Jenkins->Manage plugins->Select Available ->Type plugin name ->Install without restart

Approach 2:

* Download plugin from Google(You will get .hpa file)
* Keep that file in plugins folder of Jenkins Home directory
* Restart Jenkins

Approach 3:

* Download plugin from Google(You will get .hpa file)
* Navigate to Manage Jenkins->Manage plugins->Advanced tab,next to available
* Under Upload plugin section,select .hpa file and upload and restart Jenkins

**How to create Users + Manage + Assign Roles:**

Navigate to Manage jenkins->Manage Users

**To Create user**

* Click on Create User
* Enter username
* Enter password

**To Manage roles**

Note:Login as admin

* Need to install Roles Strategy plugin and restart jenkins
* Should enable Security by Manage Jenkins->Config global security->**Select Enable security** and **Select Role-based strategy under Authorization section-**Apply and Save
* Then navigate to Manage jenkins->Manage and Assign roles->Manage roles

**Note:**Manage And Assign role option will come only after selection of Role-based strategy option under Authorization section.

**Under Manage roles**

* Global Roles
* Project Roles
* Slave Roles

**Under Project Roles->**

* Create Role to add ex:test
* Specify the pattern ex:QA
* Give Access to specific actions ex:Only Read/Run/View and Not cancel builds

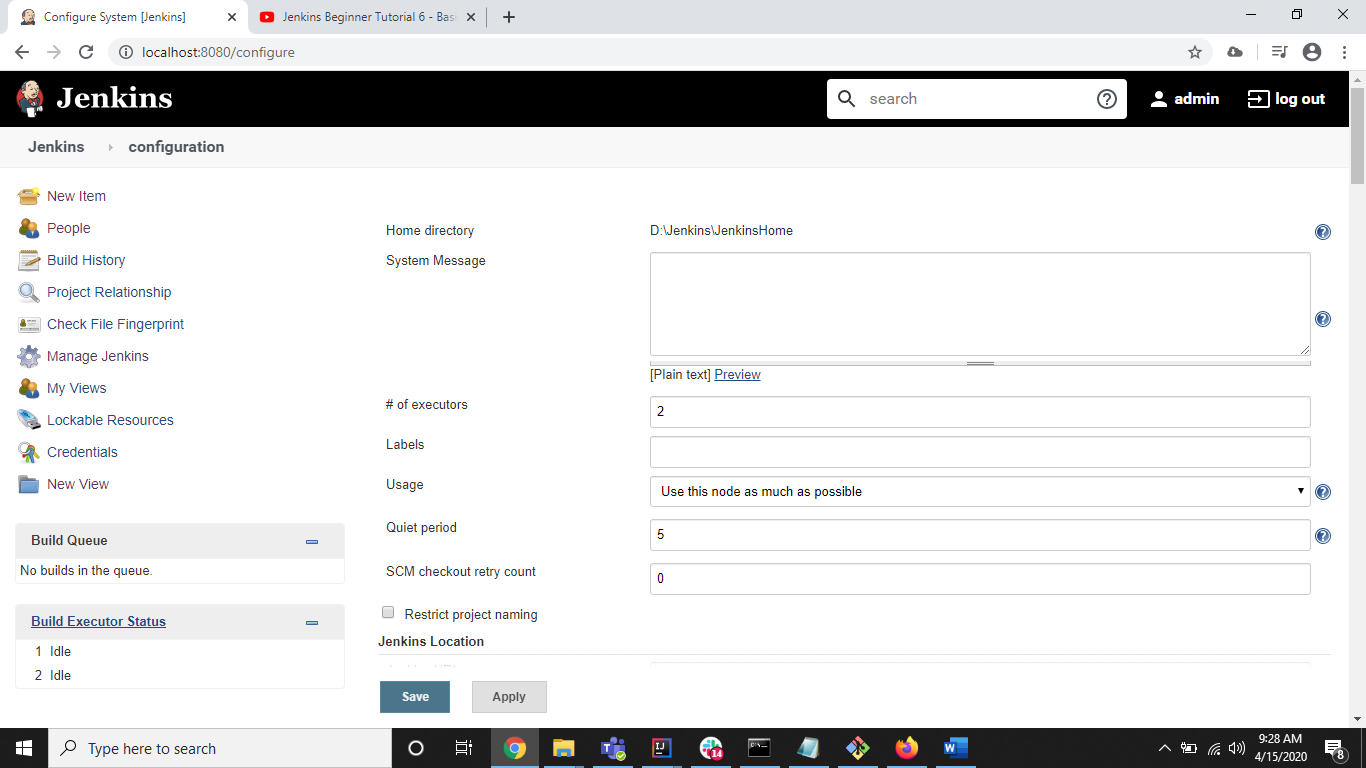
Once you are done with it, just come back to Manage and Assign roles ->Assign Roles and start assign role to Created users

ref:

<https://www.youtube.com/watch?v=QvFungzXI5s&list=PLhW3qG5bs-L_ZCOA4zNPSoGbnVQ-rp_dG&index=5>

**Basic Configurations in Configuration section:**

* First Navigate to Manage Jenkins->Configure System



**Home directory:**

This tells you about Jenkins home directory where jenkins jobs,workspace,plugins exist

Based on requirement you can change home directory

**System Message:**

This will allow to write/print messages in Jenkins Homescreen.

You can print html messages too.

ex:<h1>Hello Jenkins</h1>

**# of executors:**

it represents max num of parallel jobs

**Labels:**

Configured nodes can be accessed by labels name.

**Quiet period**:

Num of sec Jenkins instance to wait before triggering job

in short, sleep interval

**Restrict project name:**

1)Default

2)Pattern-if you define project name should start with XYZ\*, then user create project starting with XYZ only, he can’t create any project

3)Role Based-Based on requirement we can assign specific users to specific projects

**Global Properties:**

We can define global level variables, those variables can be accessed across the projects

EX:

Under Environment variables

Name: Name of variable

Value: value of the variable

you can access ${Name of the variable} where there is a need, you will get corresponding value

**How to trigger Build Remotely:**

* Navigate to Project ->Build Triggers->Choose Trigger builds remotely(e.g from scripts)

Enter Authentication Token

ex:1234

Copy that generated url and replace JENKINS\_URL and TOKEN\_NAME

**JENKINS\_URL/job/Dev/build?token=TOKEN\_NAME**

**Note:** Here JENKINS\_URL will be your Jenkins instance where it is running

And TOKEN\_NAME will be Entered Authentication Token ex:1234

* Now go to remote machine ,and trigger a build using Above link

Ex:192.168.2.19:8080/job/Dev/build?token=1234

Here Dev is the project name

**How to Chain build execution from one project to another:**

* Create a project let’s say XYZ
* Define your jobs there
* Now Create Another project let’s say ABC
* Now Go to **Build Triggers** Section->Choose **Build after other projects are built**
* Now Enter **Projects to watch**:

Ex:Enter XYZ

* Click on Save and Apply
* Now Go back to XYZ project and build the job
* You can see as soon as XYZ job completes its execution, ABC project job will be executed

ref:

<https://www.youtube.com/watch?v=63HEKFh8T2c&list=PLhW3qG5bs-L_ZCOA4zNPSoGbnVQ-rp_dG&index=7>

**How to add Credentials in Jenkins:**

* Manage Jenkins->Manage plugins->install Credential plugin
* Once u installed,you can see Credential option from Jenkins Home
* Then Click on Credentials->Click on jenkins under Stores scoped to Jenkins->Click on Global Credentials under System options->Click on Add Credentials
* then choose kind type as Username with password and Enter username,password,id,description

**What is Automated Deployment?**

Main stages in Continuous delivery and deployment pipeline

1. BUILD

2. DEPLOY

3. TEST

4. RELEASE

Automated Deployment is the process of Automating the deployment process in a Continuous Delivery system

**Build -> Deploy -> Test -> Release**

**Email Notification in Jenkins:**

* Navigate to Manage Jenkins->Configure System->Email Notification
* Enter SMTP server,ex:if it google enter google smtp server
* Select Use SMTP Authentication
* Enter Username and pass from which account you want to send an email
* Enter Port number of smtp server
* Enter Reply to address
* Click on Apply and Save

**OFFICE 365 SMTP SETTINGS**

Server Address: smtp.office365.com

Username: Your Office 365 Address (e.g. example@yourdomain.com)

Password: Your Office 365 Password

Port Number: 587 (With TLS)

Authentication: Required

Sending Limits: 10,000 Emails a day

Ref:

<https://interworks.com.mk/jenkins-setup-for-executing-windows-forms-automated-tests/>

<https://www.360logica.com/blog/email-notification-in-jenkins/>

<https://pepipost.com/tutorials/install-and-configure-email-notifications-in-jenkins/>