**JENKINS PLUGIN MANAGEMENT**

**Plugins Names**

**1.Next Build Number**

**2.Maven**

**3.Deploy to Container Plugin**

**4.**[**WebSphere Deployer**](https://plugins.jenkins.io/websphere-deployer)

**5.Safe Restart**

**6.JoCoCo plugin**

**7.Audit Trail**

**8.Schdule Build**

**9.Build Name and Description Setter**

**10.Publish Over SSH**

**11.Job Configuration History**

**12.Job Import Plugin**

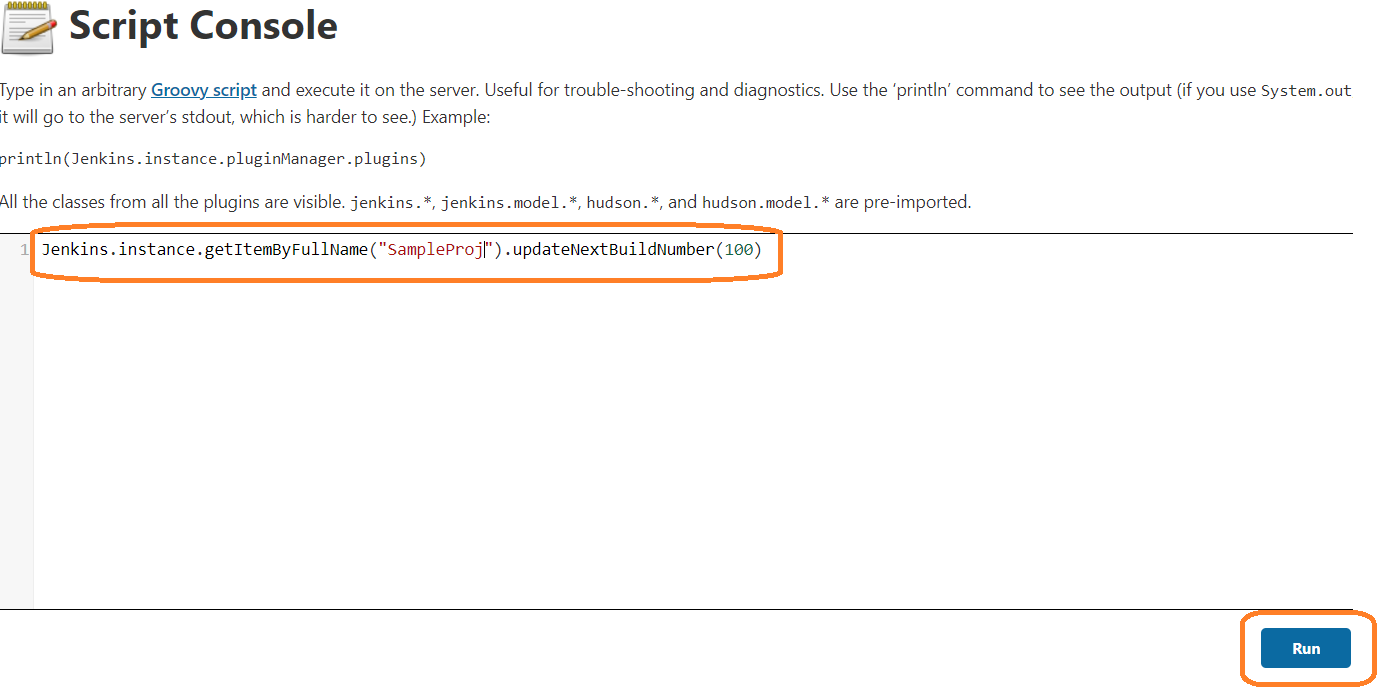
**13.GitHub Webhook**

**1. Next Build Number**

We can change *nextBuildNumber* two ways(**(under each job level)**

Sets the build number Jenkins will use for a job's next build

1.Manage Jenkins 🡪 Script Console



*Jenkins.instance.getItemByFullName("<****PROJECT-NAME****>").updateNextBuildNumber(<****NUMBER****>*

* Click *Run* and test

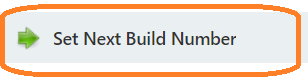
**(OR)**

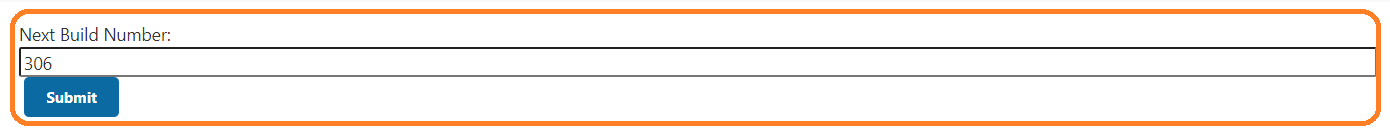
We can change using home directory

BuildNumber will be store in Jenkins home directory under **jobs**

Install “**Next Build Number”** Plugin

Set value manually and test





**2.Maven**

We can create job for only java project which are build tool “Maven”

Designed specific for java project

Having some specific feature

Installing Maven in Jenkins server

**Manage Jenkins -> Global Tool Configuration**

Under Maven section give required version details for install

**3.Deploy to Container Plugin**

Deploy application to TOMCAT server

This plugin allows you to deploy a war to a container after a successful build

*Manage Jenkins🡪 Manage Plugin 🡪 Available*

4. [**WebSphere Deployer**](https://plugins.jenkins.io/websphere-deployer)

Deploys your web artifacts automatically to IBM WebSphere Application Server and IBM WebSphere Liberty Profile

*Manage Jenkins🡪 Manage Plugin 🡪 Available*

**5.Safe Restart**

If we don’t have access to restart JENKINS server using LINUX commands in this case we can restart using URL

By using URL we can restart Jenkins

*Manage Jenkins🡪 Manage Plugin 🡪* **Safe Restart**

**URL:**

**http://<Public-IP> :<Port>/<context-path>**

[**http://52.66.151.79:8080/safeRestart**](http://52.66.151.79:8080/safeRestart)

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**#saftRestart:** It will wait until running jobs should complete

<http://52.66.151.79:8080/restart>

****

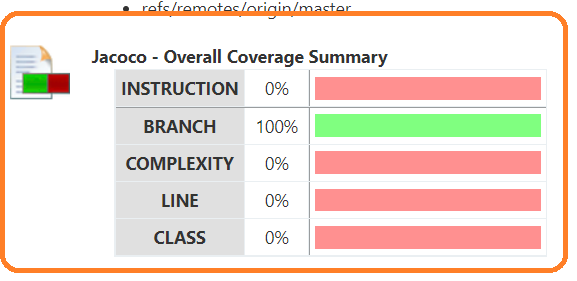
**#restart:** Forcefully restart, it won’t wait running jobs should complete

**6.JaCoCo plugin (Java Code Coverage)**

To Generate the Test report, we will use this plugin **(under each project level)**

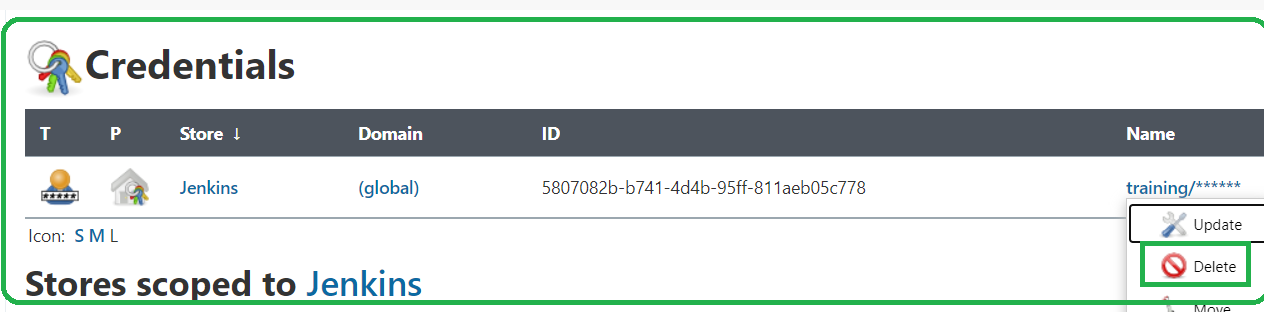
Under each Job level we can see code coverage result.

This plugin integrates ***JaCoCo code coverage report to Jenkins***



**\*\*\*\*\*Delete credentials in Jenkins**

*Manage Jenkins🡪 Manage Credentials*

**

**7.Audit Trail**

Keep a log of who performed particular Jenkins operations, such as configuring jobs.

In DevOps culture many DevOps Engineers (DE) will be running jobs based on requirement to rack all information.

*Manage Jenkins🡪 Configure System(to configure global setting and path)*



We have to give location where log file should store

Example log location:

/root/.jenkins/logs/**audittrail.log**

/root/.jenkins/logs/**audittrail.log.0**

/root/.jenkins/logs/**audittrail.log.1**

Once the file size reaches it will add on more file until file count reaches

**8.Schedule Build**

If we want to run job (TODAY OR Specific time/day for temporary) we can use this plugin

**Example:** I want to run job today @1:00 PM IST, today alone

We have to give Jenkins’s server time (where the Jenkins installed) based on that we have to update schedule time and test

*Manage Jenkins🡪 Manage Plugin 🡪 Schedule Build Plugin*



**9.Build Name and Description Setter**

This plug-in sets the display name and description of a build to something other than #1, #2, #3

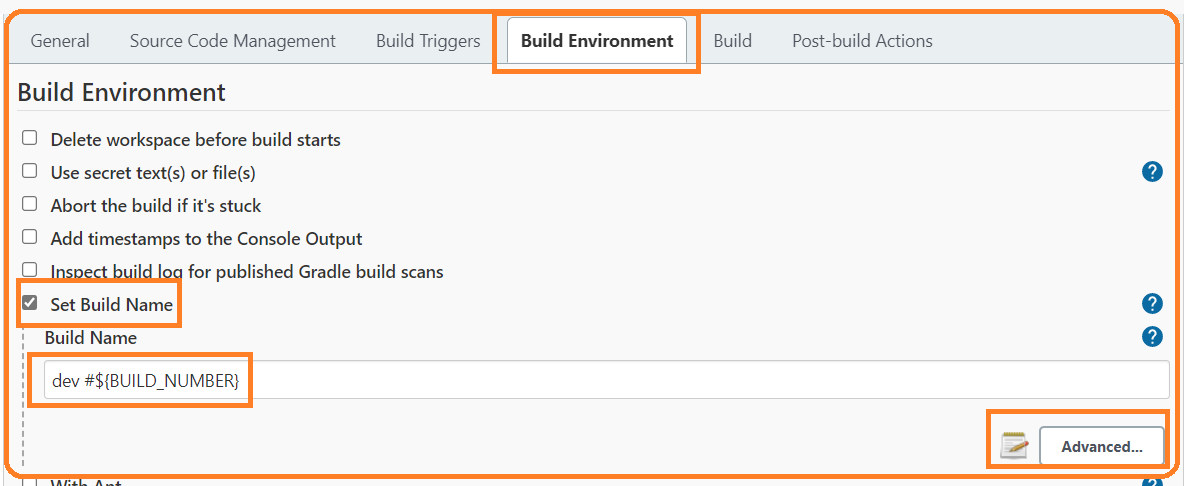
If we want to add environment name instead of build number, we will use this plugin

*Manage Jenkins🡪 Manage Plugin 🡪 Build Name and Description Setter*

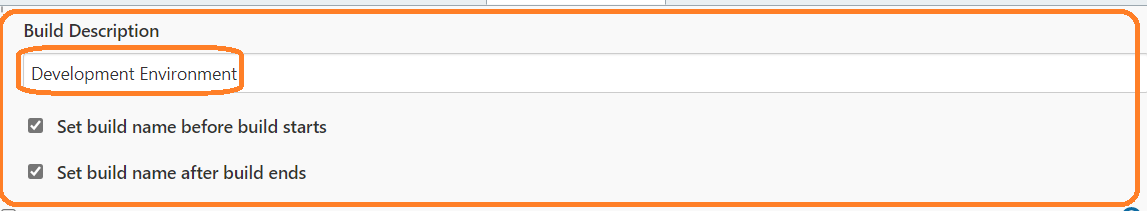
*Once Plug in installed*

*Go to particular job*

*Example: Dashbord -> JobName -> Configure -> <Under Build Trigger Tab>*

**

*Click on* **“Advanced”** *tab*

**

**Save and Test**

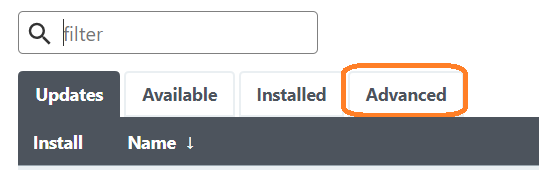
*Syntax:* <Shot/Full Environment Name> #${BUILD\_NUMBER}

Dev #${BUILD\_NUMBER}

* **\*\*\*\*\*To install External Plugins, we will use “Advanced” Tab**

Example: **Urban Code Deploy**

*Manage Jenkins🡪 Manage Plugin*



**9.Publish Over SSH**

Send build artifacts over SSH

Going to upload STATIC content

To deploy STATIC content to the server we will use the ***“Publish Over SSH”*** plugin

* **\*\*\*\*\*To get Jenkins password (if forgot)**

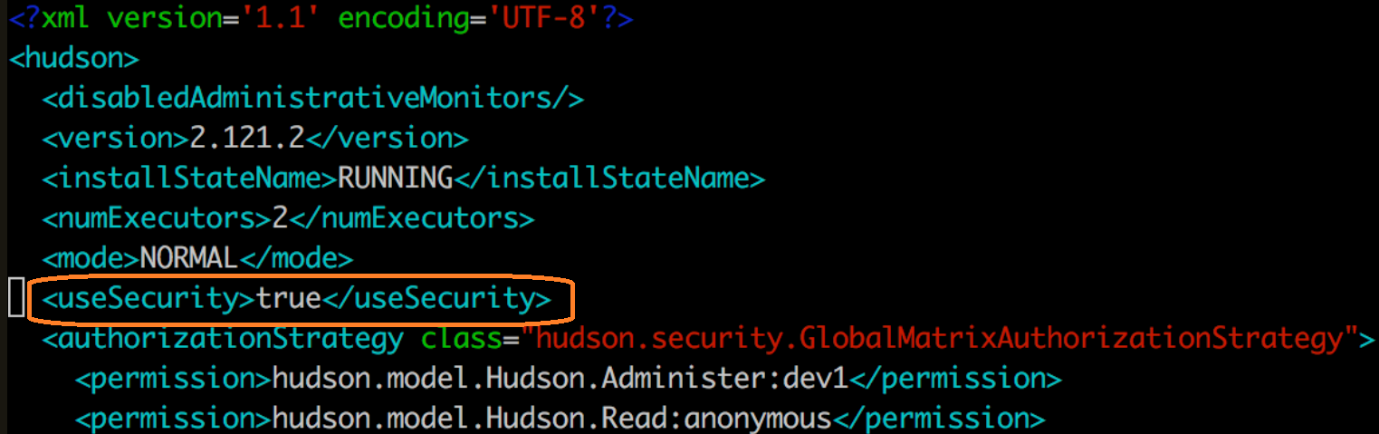
Let's say you have forgotten Jenkins admin password. How to set or retrieve the admin password?

Here below are the steps for resetting Jenkins admin password:

1. Edit the Jenkins config.xml under /var/lib/jenkins to disable securityFlag by executing below command:  
<Jenkins Home Directory>/config.xml

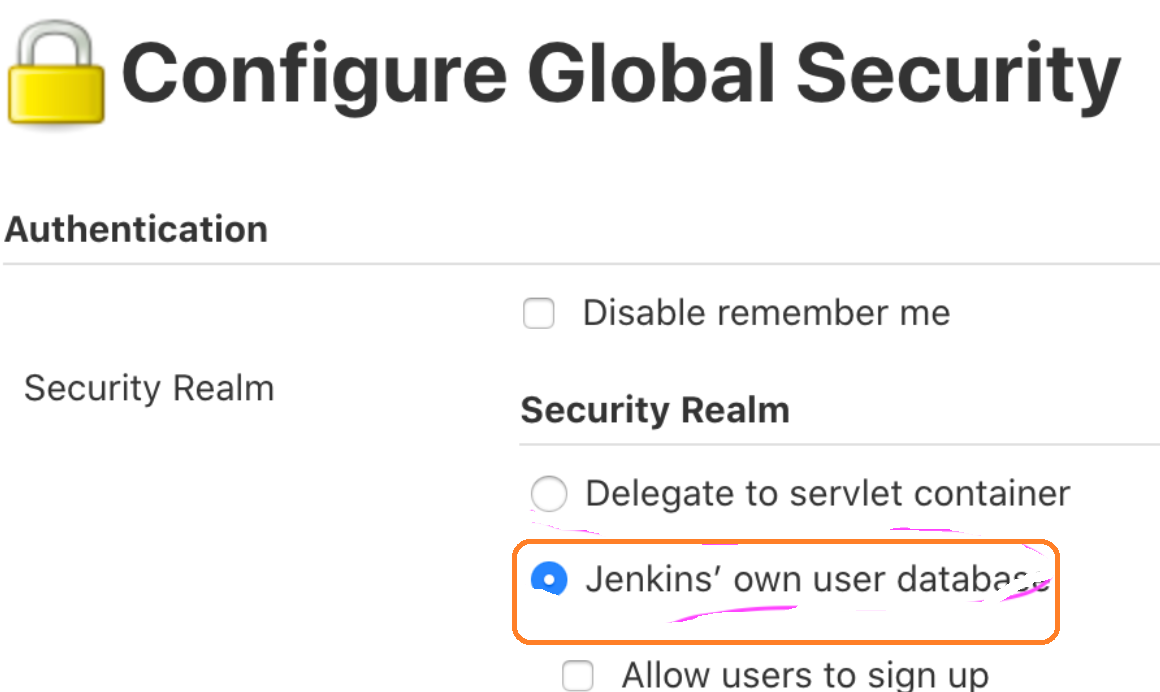
sudo vi /var/lib/jenkins/config.xml

**/root/.jenkins**/**config.xml**

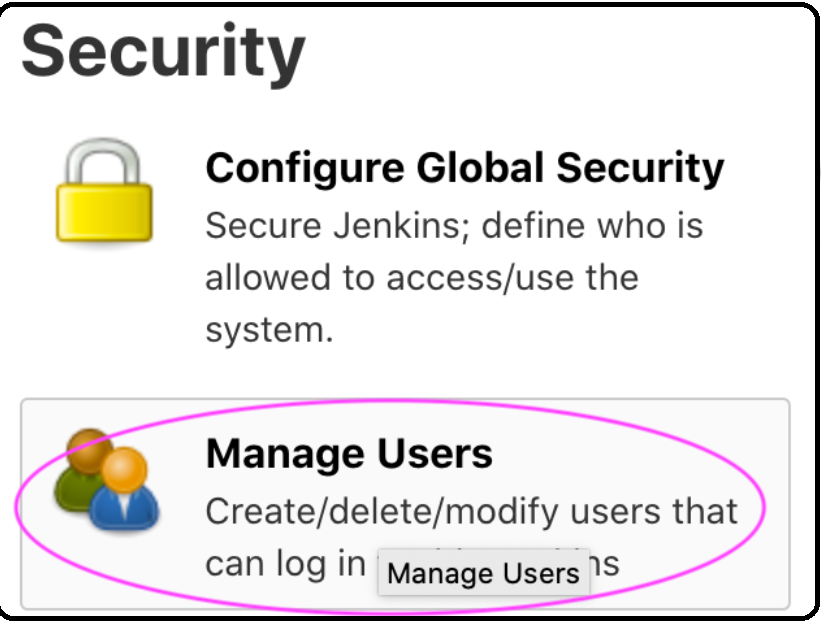


you need to disable security to Jenkins by below change  
2. Find this ***<useSecurity>true</useSecurity>*** and change it ***to <useSecurity>false</useSecurity>***  
3. Restart jenkins by below command:  
***sudo service jenkins restart***4**. Access Jenkins now, click on Manage Jenkins, click on configure Global security**   
5. click on Enable security

6. Click on Jenkins Own user database option.

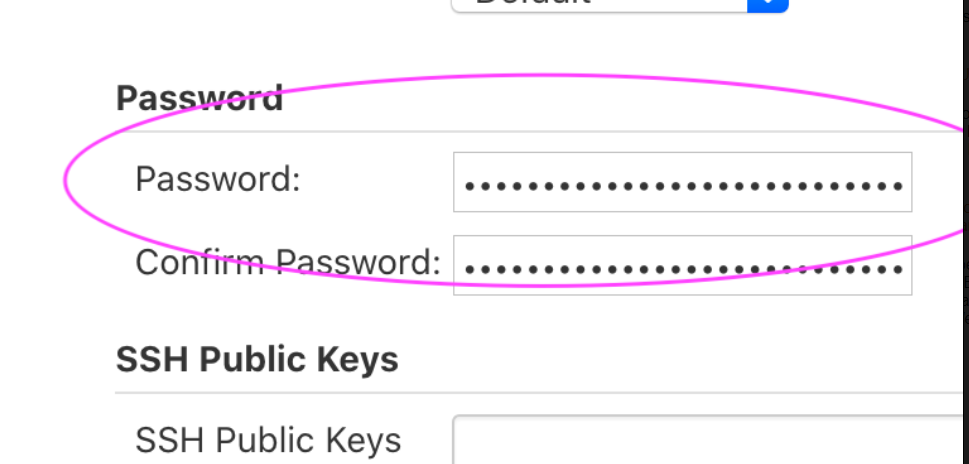


7. click on apply and save  
8. Now click on Manage users, click on admin, click on configure





  9. Enter new password and apply/save



* **\*\*\*\*\*Change Port number for Jenkins (default)**

**Go to below path**

/etc/sysconfig -> RedHat linux

/etc/default -> Ubuntu

# vi Jenkins

**JENKINS\_HOME = “root/.Jenkins/” // Change default home directory**

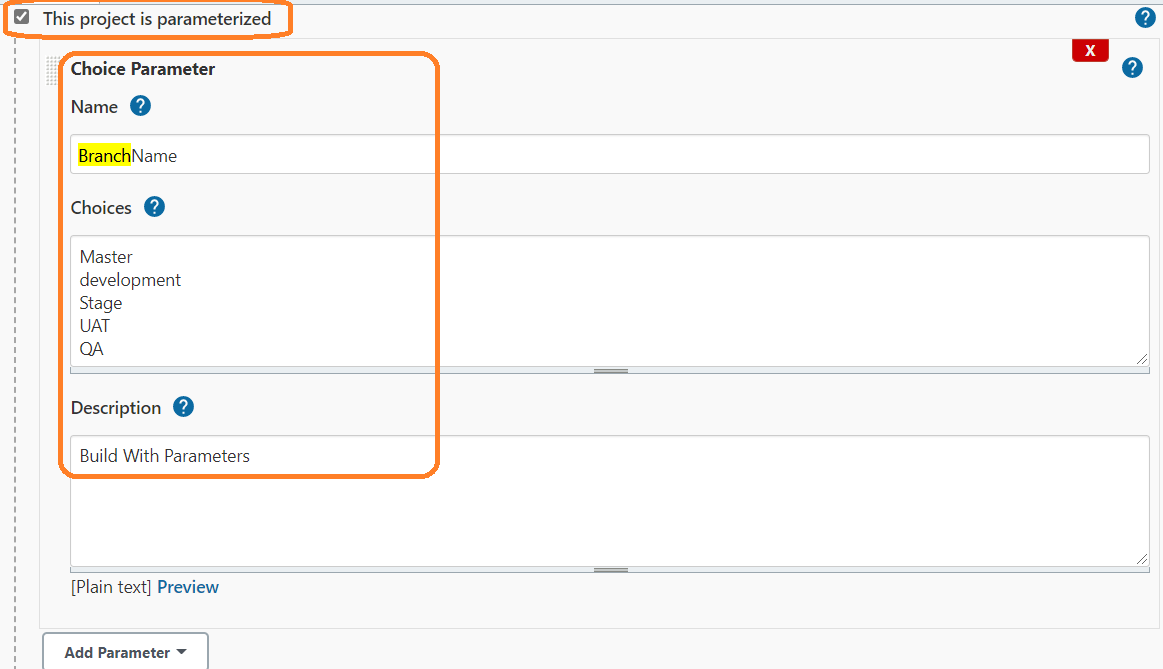
**JENKINS\_USER = “Jenkins” // Change default username**

**JENKINS\_PORT = “8080” //Change default PORT number**

**Once changes done, restart Jenkins**

**10.Build With Parameters**

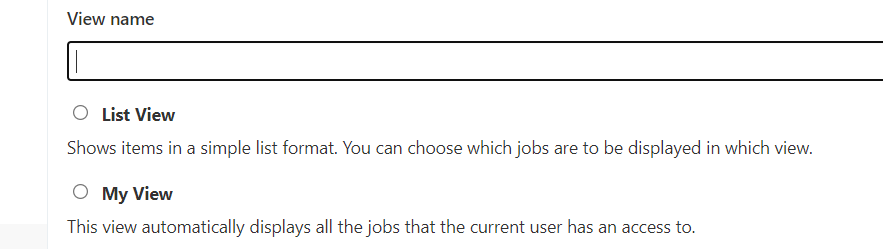
Instead of hard coding values in Jenkins configuration to get values dynamically wee need to enable check box i.e **“Build With Parameter”**



Click on “**Add Parameter”** for more parameters setting.

**Create View**

If we have multiple jobs i.e more than 200+ different purpose, instead of putting all jobs in one place we can create **VIEW** and we can copy all in that view.



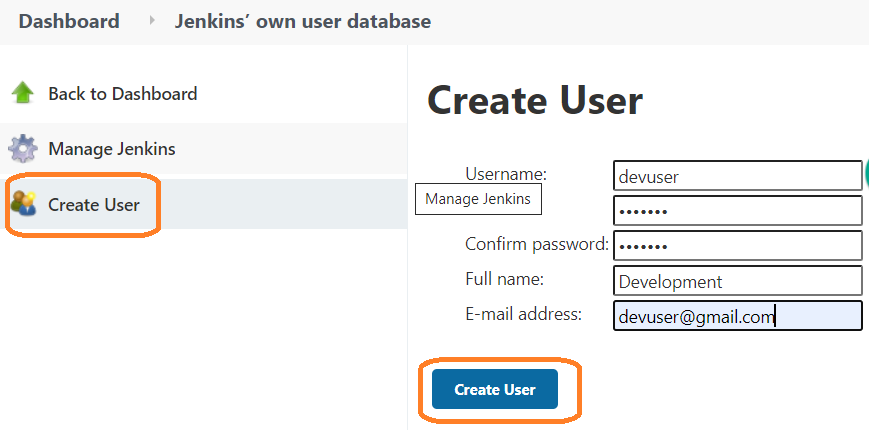
Views is very useful to Navigate the project based on requirement

User full if Jenkins have multiple projects

We can ***Edit View*** and we can ***Delete View*(if we delete view, view only delete)**

**Jenkins Security:** To create users

*Manage Jenkins🡪 Manage Users 🡪 Create User*

**

User name will be store users **user.xml**

**#cd /root/.jenkins/users**

Login with new user and verify.

By default, new user will have all access

We can restrict Admin access navigating below steps

Login with Main Admin user

*Manage Jenkins🡪 Configure Global Security*