**Jenkins**

**Change port number in jenkins :**

Go to installed path -> jenkins.xml->change the port number

**Configure Global Security :**

* **Allow users to sign up** : we can provide signup action to user - but not recognized to use
* **Anyone can do anything** : just hitting jenkins server anyone can do anything without authentication - but not recognized to use
* **Logged-in users can do anything** : In this option every logged in user will get full control of jenkins . but depending upon advance option we can provide read only access to anonymous user
* **Matrix-based security :** If you choose matrix based security atleast we need to add one user else jenkins. Then by adding users using manage user we can provide required access for particular user.
* **Project-based Matrix :** This is an extention to matrix based security this will provide addition al security using Access control lis(ACL). Here we can grant access to group or user to specified project.
  + If we selected project based then can go to general configuration of each job and can assign it to particular user or group
* **Role-based strategy :**
  + Download role-based strategy plug-in .
  + Select role base security radio button under configure global security and save it.
  + Manage Jenkins -> manage and assign roles -> manage roles (to add roles)-> assign roles (added roles will be displayed here just add user to required roles)
  + Like matrix n project based if we didn’t add any user this wont crash the software.

**Manage user :**

Used to add or delete user

**Credential** : used to create global credential

We can different ways of credential like username password, ssh , certificate etc..

**Configuration management :**

* **System message :** used to change message of home page
* **# of executors :** we can change the number of executor .By default it will be 2 for master node.
* **SCM checkout retry count :** define how many times need to connect SCM to check if any changes done in SCM in particular interval of time (this will defined using POLL SCM)

**Configure credential :**

* we can exclude or include the providers like Folder , jenkins credentials provider
* we can exclude or include the types like username and password , SSH ,certificate , secrete text etc.

**Global tools Configurations :**

We can add JDK, Git, Maven , gradle , Ant etc , we can use installed one or also we can pick from site .

**Prepare for shutdown :** This will provide notification banner message of Jenkins shutdown in all the pages .

**Jenkins Job creation steps:**There are 6 steps:

**General :**

* **Discard old build :** 
  + We can keep number of days builds and delete rest
  + We can keep entred number of build and delete older build
* **This project is parameterized :**
  + We can add required parameters like Boolean /choice… parameter
  + We can add any number of parameters.
* **Throttle build :**

Used to provide number of builds needs to be done in a day/week/year.

* **Disable this project:**

This will disable the build button for that particular project

* **Used custom workspace :**

Used to provide custom workspace for the project

**Source code management :**

* **Git :** used to connect Jenkins with git
* **Subversion :** used to connect Jenkins with subversion

**Build Triggers :**

* **Build project remotely :** we can build project remotely by creating Token

URL : jenkinsurl/job/jobname/build? Token=token\_name

token\_name -> we need to create under above

* **Build after other project build :** This is used to build upstream project means current job is depends on other job outcome. We can also create downstream project in post build action
* **Build periodically :** here we use crontabto build the project

\*\*\*\*\* // mins , hours,day, month, week of the day

* **Poll SCM :** is similar to build periodically this also will use crontab but this will trigger the build if only changes happened in SCM

**Build environment :**

* **Abort the build if its struck :** we can provide timeout mins , if any build struck above that time just if will abort the build
* **Add timestamp to console output :** This will add timestamp to console output

**Build :**

We have many option here like execute shell command ,execute windows command, invoke Ant , invoke maven, invoke Gradle . based the elected option build execution will completely

**Post build Action :** this provide some option after post build action

* **E-mail notification :** this is used get email notification for status of build . To enroll this we need to create SNTP authentication(in configuration system).

**Required details :** SMTP server, user default suffix ID , from mail id and password,

SMTP Port (465)

Then in post build action provide recipients and status when email needs to be triggered.

Note : here we will get email if only build fail or build broke incase if we required emails for build success or build abort then we need to configure editable/extended email notification(similar to email notification configuration).

* **Editable email notification :** explained above just provide information and save
* **Deploy wae/ear file to container :** to get this option install deploy to container plugin

Provide war file path , executable file name and container where code need to be deploy.

And also we need to edit tomcatuser.xml file (its there in drive )

**Manage node:** used to create jenkin node, this is used to create master and slave concept.

When we add new node one option will be added in general information  
**Restrict where this project can be run** : here enter the lable name of the remote server where you have to runthe project

**Backup Jenkins :** we will use backup plug-in (manual backup)or thin backup plugin(we can schedule backup using crontab) to take Jenkins server backup.

After installing plugin under manage Jenkins we will get backup manager option

Backup manager -> setup (provide backup bath, format of the back upfile )-> save

Backup manager -> back up hadson configuration (to take backup )

Backup manager -> restore hadson configuration (to restore backed up Jenkins server )

**S3 publisher:** used to take backup of Jenkins server in cloud

This will add new option Amazon S3 profile under configuration management and

**Deploy maven project in tomcat which is hosted in same machine :** create war file using mvn install and then copy the war (execute windows/execute shell) file to tomcat under path (…/webapps)

**Deploy war file remotely :** install deploy to container plugin