JENKINS

**Jenkins scripted pipeline:**

**-**u can create plugin or pipeline, in plugin u will create different jobs and integrate them by plugin,in pipeline u will create one job and inside that u will create stages.

-u cant skip jobs in plugin but in pipeline u can skip it.

-u can restart particular job in pipeline.

-u have multiple agent in Jenkins like master,agent1,agent2

### - Create Jenkins Pipeline for Automating Builds, Code quality checks, Deployments to Tomcat - How to build, deploy WARs using Jenkins Pipeline - Build pipelines integrate with Bitbucket, Sonarqube, Slack, JaCoCo, Nexus, Tomcat

**-** u can create cicd pipeline using ui or u can create scripted pipeline, u can call it pipeline as code

- Two types of pipeline scripted or declarative

- scripted pipeline uses groovy script and its more complicated, where as declarative pipeline is predefine u need feel gap.

- there are three build tools in Jenkins gradel,maven,jdk

-Build pipeline plugin

1)declarative pipeline

We write code in jenkinsfile and put it into github

Pipeline {

Agent any;

Stages{

stage(‘build’)

{

//

}

stage(‘test’)

{

//

}

}}

2) Scripted pipeline:

- In componys mostly groovy script is used for pipeline

-U can create first pipeline in ui and next in txt file and upload it on git repo and integrate that txt file to Jenkins.

We write code directly into jenkins

node

{  
 stage(‘build’)

{

//

}

stage(‘test’)

{

//

}

}

3)Groovy script:

It has string interpolation ${variablename}

SonarQube: this tool used to create report of code it will analyse code if some failure occers it will give suggestion also it will create report.

Jenkins master slave:

-manage Jenkins>>manage nodes>>

-give node name, remote repo and ssh key

-install java on remote server and also give permission to ec2 for remoterepo

Upgrade Jenkins previous version:

1)take ebs snapshot

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***Jenkins2.0***

-var/lib/jenkins/config.xml

-we store binaries in nexus or arti

-we can do build with parameter it will take var from user

**Add node:**

* add new node >> add permanently>>label>>usage>>directory>>launch method

>>launch agent through ssh

* label is imp when we declare script we will use label to assign build on that node
* add userID
* create folder in slave with same user
* after connecting with slave it will create remoting.jar and log files
* select the option restrtict the project can run