

Jenkins Interview Questions and Answers

1)which tool have you used for implement CI/CD

->Jenkins

2)Any alternate tool do you know for CI/CD

->Bamboo/uddeploy/teamcity/tfs...

3)what is continuous Intergration

->get Source Code management(SCM)-->compile -->test-->build-->static code analysis-->nexus-->build failure send notification (CI)

4)what type of job have you configured in jenkins

-->Pipeline

Maven Project

Freestyle project

Build flow

External job

folder

Github Organization

Multibranch pipeline

5)what are the types of job are available in jenkins

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6)what is diff b/w freestyle and pipeline

->freestyle --> we configuration through everything the web UI,we can get option plugin instalation.

pipeline --> DSL langauge code,we are using written pipeline flow of our project we are written in syntax base.

7)what is pipeline

-> is a suite of plugins which supports implementing and integrating continuous delivery pipelines into Jenkins.

A continuous delivery pipeline is an automated expression of your process for getting software from

version control right through to your users and customers

8)what is the declarative pipeline

->pipeline is a user-defined model of a CD pipeline.

here stages are

Build

test

Deploy

9)what is diff b/w declarative pipeline and script based pipeline

->declarative pipeline start with pipeline syntax and script based pipeline start with node syntax.

10)write the pipeline syntax

->jenkinsfile(declarative pipeline)

```
pipeline {  
  agent any          (1)  
  stages {  
    stage('Build'){  (2)  
      steps{  
        //          (3)  
      }  
    }  
    stage('Test'){    (4)  
      steps{  
        //          (5)  
      }  
    }  
    stage('Deploy'){  (6)  
      steps{  
        //          (7)  
      }  
    }  
  }  
}
```

}

}

11)what is the master/slave architecture? what is the use of master/slave.

->master/slave:- many slaves work for a master,its also known as Jenkins distributed Builds.

it also allows to run jobs on differents like linux,
windows,MacOS.

12)How many we can connect the slaves

->1)launch agent via SSH. --->useally use

2)Java web start.---->useally use

3)execution of commond on the master.

4)jenkins control this windows slave as a Windows service.

13)how many ways we can provide security for your jenkins server.

->manage jenkins

manage nodes

new node

14)what is the sonarqube?have you configure?How you configure?

->SonarQube is an open-source platform developed by SonarSource for continuous inspection of code quality.

Sonar does static code analysis, which provides a detailed report of bugs, code smells, vulnerabilities, code duplications.

Basically Integrating SonarQube and Jenkins provides you the ability to analyze your code when you run a job

which contains SonarQube execution within it and generates an analysis of that code in your SonarQube Server.

1)Log into Jenkins as an administrator and go to Manage Jenkins > Configure System.

2)Scroll down to the SonarQube configuration section, click Add SonarQube, and add the values you're prompted for.

3)The server authentication token should be created as a 'Secret Text' credential

15)what type of artifactory repository tool have you used?

->nexus,jfrog,s3

1)we can create own repository

2)we can mentained multiple versions of our delivery

3)Artifactory is a Binary Repository Manager product from Jfrog. You're right - being a binary repository manager

it is typically used to manage storage of artifacts generated and used in the software development process

16)what is the use of artifactory tools?

->Artifactory is a Binary Repository Manager product from Jfrog. You're right - being a binary repository manager

it is typically used to manage storage of artifacts generated and used in the software development process.

17)How you declare a variable in pipeline

->it can be called from the Jenkins declarative pipeline using \${...} syntax

18)What is DSL language?

->Domain specific language - groovy is DSL in declarative pipeline

1)It can be allow the any (shell,bat)script of language,shell script java code,bat

19)what is the upstream/downstream projects? what is the use of it? which scenario you configure?

->An upstream in open source is the source repository and project where contributions happen and releases are made.

The contributions flow from upstream to downstream. When talking about an upstream,

usually the precursor to other projects and products.

Uses->

we can build multiple of number jobs at time ,UI tool deployment,

UI project build ,Data base management,we can build one pipeline mode.

20)if a have 10 repositories i github how many jobs you can configure?

-> 10 jobs

21)do you have experience to install jenkins?

-> yes

22)How you configure jdk,maven,gradle...etc?

->jenkin

manange jenkins

Global tool configurations

jdk,git,gradle,maven,sonar scanner,sonarqube,ant,
docker

23)in my are environment i have version for java implementaion projects is there?How you configure multiple jdk's?

-> yes

we can add multiple jdk versions

manage jenkins

Global tool configurations

in jdk -->we can add diff mulple versions

24)what are the plugins have you in your project?

->1)Easy Installation. The easiest way to download Jenkins is to download the WAR file.

2)Job Generator Plugin. ...

Performance Plugin. ...

GitHub/GitLab Pull Request Builder. ...

JIRA Plugin. ...

Kubernetes Plugin. ...

Build Pipeline plugin. ...

SCM Sync Configuration Plugin. ...

Jenkins Maven plugin.

25)How to take backup my plugins? ->thin backup plugin

26)what is the jenkins Home directory?

->user.jenkins

27)how to deleted old builds automatically

->configure

general

discard old builds

how many days to keep builds

max # of the Builds to keep

28)how to configure multiple environment deployment?

->configure

general

discard old builds

how many days to keep builds

max # of the Builds to keep

this is project is parameter

29)what is the difference between webhooks, poll scm and build periodically?

->what purpose automation build tool

build now :-> automate execute code

shell script automate build what we can do use

cron job

***** respective that minute ,hour ,day of the month,month of the year ,day of the week

min hour dom moy dow

build periodically:-> its run on a perticular time (it wont worry about you pushed), job trigger automatically -> pull base mechanism

poll scm :-> pull and after pushing (means it change in code then only) some time whatenver time you mention ->pull base mechanism.

webhooks:-> after push immediatly ->push base mechanism

30)what is the ngrok?

->ngrok :-> when we use jenkins in windowds -> we talk to github

1)archirve file that path CMD

2) ngrok.exe authtoken <YOUR_AUTH_TOKEN>

3)ngrok.exe http 8080

4)here <http://13057325.ngrok.io> this is out public domain of your system we need to configure this your in github weebhooks.

5) Now our Public DNS is ready lets move into the jenkins configuration.

6) go to Github

webbhooks

<http://13057325.ngrok.io/github-webhook/>

31) how your project create war and jar file ?

->inside the pom.xml .The tag name called as packaging,base on the packaging create our final output of your project.

32) what is the diff b/w snapshot and version release.

->snapshot means still under the developing .

once complete development final release version.

33) what is the pom.xml contains

->it contains the plugins then dependencies of project.

34)how to execute the code in maven? What is the maven lifecycle?

->mvn package

maven lifecycle

validate

compile

test

package

verify

install

deploy

deault lifecycle ,clean :-> inbuilt lifecycle ,old target folder

35)pom.xml and build.xml and gradel.xml which are the build tools terminology?

-> pom.xml :->maven build tool

build.xml :-> ant build tool

gradel.xml :-> gradel build tool.

36)how to create maven project in console.

->archetype:generate :-> project creation

Note:- You need somewhere for your project to reside. Create a directory somewhere and start a shell in that directory. On your command line, execute the following Maven goal:

```
mvn archetype:generate -DgroupId=com.mycompany.app -DartifactId=my-app -
DarchetypeArtifactId=maven-archetype-quickstart -DarchetypeVersion=1.4 -
DinteractiveMode=false
```

artifactId :->my-first-maven-app

Note:-> -D symbolically environment variable in java.

37) What is the Apache tomcat server?

->web server ,we deploy the war(web archive) file.

38) What is the difference between application server and web server?

Application server and web server both are used to host web application. Web Server is deal with web container on the other hand Application Server is deal with web container as well as EJB (Enterprise JavaBean) container or COM+ container for Microsoft dot Net.

Web Server is designed to serve HTTP static Content like HTML, images etc. and for the dynamic content have plugins to support scripting languages like Perl, PHP, ASP, JSP etc and it is limited to HTTP protocol. Below servers can generate dynamic HTTP content.

Web Server's Programming Environment:

IIS : ASP (.NET)

Apache Tomcat: Servlet

Jetty: Servlet

Apache: Php, CGI

Application Server can do whatever Web Server is capable and listens using any protocol as well as App Server have components and features to support Application level services such as Connection Pooling, Object Pooling, Transaction Support, Messaging services etc.

Application Server's Programming Environment:

MTS: COM+

WAS: EJB

JBoss: EJB

WebLogic Application Server: EJB

39)what is the Ports

Http Ports

smtp->25

Gmail Smtip ->465

ssh->22

https->443

httpd->80

nginx->80

jenkin->8080

nexus->8081

sonarQube->