1. **Roles and Responsibilities or Tell me about yourself?**

Good afternoon well I from Andhra Pradesh Guntur (D.T). I have completed Btech at YPR college of Eng. & Tech with an aggregate of 68.45% and I have completed intermediate at Ignatius Jr. college with an aggregate of 84.8% and 10th class at B.Z.P high school with 74.58%.

I have 4 years of it experience and currently working for Zensar technologies.

1. This application was created using JAVA and part of my responsibility is to perform CI-CD on this project for this we are using Jenkins.
2. I have configured Jenkins like whenever developers make any modifications to the code and “check-in” into ‘Git Hub’. Jenkins will automatically detect that modifications and download that code and Create an Artifact with the help of MAVEN.
3. This Artifact Jenkins will deploy into the Qa-servers.
4. In my organization we have testing team they written some testing programs those will be store in remote git server.
5. I have configured Jenkins to download these testing programs and test the application deployed in the Qa-server.
6. Since running so many testing programs can downgrade its performance, I have configured “slave machines and my Jenkins file distributes these jobs, between the slaves.
7. If testing fails, I have configured Jenkins to send automated emails to the concerned team members, they will check the errors and fix the bugs and once again “check-in” into GitHub and this complete process repeats again.
8. Once testing has passes Jenkins will now deploy the Artifact into the Staging Servers, for staging server we using ansible, the artefact will be stored in Ansible-controller machine.
9. After taking approvals from the manager that will be deployed into the production servers it will become live, I mean client can start access it.
10. **If Jenkins fails? Build errors in Ci-Cd how did you resolve it?** Open console output

* some times we get build errors like java librarys missing at that time I send notifications to development team members for that issue they will check it and fix that .
* some times we get unable to download the coad from Source code Management(SCM), at that time check the Github path properly given or not and is git installed or not and suppose if git installed for that git executable path is provided or not.
* Some times we get build time error related to maven and check the maven installed or not and if installed maven I will check the maven home path propely configured or not
* Insufficient space.

1. **How can you copy or move Jenkins server ?**

* 1st copy the related job directory and slide a job from one installation of Jenkins to another.
* Make a copy of an already existing job by making clone of a job directory by a different name
* Rename an existimg job rename a directory

1. **What will you do when you see a broken build for your project in Jenkins?**

I open the console output for the build and will try to see if any file changes were missed. If not able to find the issue that way, Will clean and update my local workspace to replicate the problem on my local and will try to solve it.

1. **How can you backup Jenkins job?**

1 way ans :- If you want to create a back-up of your Jenkins setup, just copy the directory that saves

all the settings, build artifacts and logs of Jenkins in its home directory. You can also copy a job

directory to clone replicate a job or rename the directory.

2 way ans:- using backup plugin 1st goto manage Jenkins in that we have option manage plugins

search for available backup plugin, install without restart after installation of plugin we get

**Backup manager** option in that we have 3 options 1) [Setup](http://52.66.252.63:8080/backup/backupsettings) 2) [Backup Hudson configuration](http://52.66.252.63:8080/backup/launchBackup)

3) Restore Hudson configuration

1) [Setup](http://52.66.252.63:8080/backup/backupsettings) :- i) Backup directory path ii) **Backup content :** workspace , build history, mvn srtifact archive

2) [Backup Hudson configuration](http://52.66.252.63:8080/backup/launchBackup):- it takes backup

3) Restore Hudson configuration:- we can restore

1. **How to Configure Slave Machines?**

Establish the PasswordLess SSH between Master and Slave Machine, I will check the user name and password of slave machine

by default we have PasswordAuthentication No we have to change from no to yes for that

Go to ssh directory using linux cmd:- **cd /etc/ssh** in that we have **sshd\_config** file edit that file using:- **sudo vim sshd\_config** file change PasswordAuthentication No to YES :wq for save and exit from the file Restart the ssh service. If we do any modification for that update we have to restart the service.

I will make a directory using linux cmd :- **mkdir workspace** and gives execute permissions to the directory using **chmod o+x workspace** this is the location where Jenkins job will store.

And downloads the slave.jar file using wget <http://ipaddress-of-master:8080/jnlpJars/slave.jar> and provide execute permissions to slave.jar file using:- **chmod o+x slave.jar.**

Next I will install the same version java installed on master machine and install the git also.

In Master machine :- by using ssh-keygen I generate the 2 keys 1) private key **id\_rsa** 2) **id\_rsa.pub**

We have to copy the content of public key using:- ssh-copy-id-slave-machinename@Ip-address

1st time it will ask one time password then it won’t ask again and again

Now we can copy the file from one remote server master to another remote server slave machine. Go to **Manage-Jenkins**  we have option **manage nodes**  create New node mention name to the node select as **permanent agent** in that we have to give the path of

**Remote root directory** /home/ubuntu/workspace

And mention the label name by using **label name** we can the restrict the job where it have to execute then provide the **Launch method** ssh name-of-machine@ip-address-of-slave java -jar /home/ubuntu/slave.jar

One more important thing we have to install same version java installed on master machine

1. **How many deployments do per day?** 4 deployments per day
2. **How many servers using?** ForJenkins Total 6 servers we are using in that 3 for Jenkins 3 for slave machines.
3. **How can you provide security to Jenkins Job?**

We can provide security to Jenkins in 3 ways

1) Role-Based Strategy 2) Project-based Matrix Authorization Strategy 3) Matrix-based security

1) Role-Based Strategy :- In my organization we are using Role-Based Strategy for that go to Manage Jenkins we have option called Manage-plugins serach availble for

[Role-based Authorization Strategy](https://plugins.jenkins.io/role-strategy) plugin install without restart.

Go to [Configure Global Security](http://13.233.121.27:8080/configureSecurity/) enable the **Role-Based Strategy** apply and save.

In Manage Jenkins we get option **Manage assign and roles** i) Manage Roles ii) Assign Roles

Go to i) **Manage Roles** in that Global roles create a role employee give overall read permessions then create project role name **Developers** for that pattern Dev.\* same like testers also then give all permissins to the developers and testers apply and save. Go to ii) Assign roles add the employees then select who are developers and testers save and apply. Then check only devlopement jobs will show only to developers and testing job to testers.

**6.**

**8. How to create Jenkins job?**

**11. Have you used shell script in Jenkins?**

**12. Day to day activity in your organization?**