Interview Q&A

1. Diff btw git merge and git rebase ?

Git merge :

Git merge will merge the contents of the branch that we want to merge to the current branch. The history of both the branches are preserved and a forked history is obtained.

There is no changes in the commit id.

Git rebase :

Git rebase will also integrate the branch that we to integrate to the current branch. The history of the rebased branch will now sit on top of the current branch. This makes the history appear as if all commits that are made , are made in this single branch only. So, history is re-written. The commit id also changes.

1. How do you integrate Jenkins with jacoco, sonarqube and maven ?

-first go to manage Jenkins and then choose manage Jenkins.

-Go to manage plugins and download plug-ins of jacoco, sonarqube and maven.

-then go to add credentials and add user id and password of the softwares and give add.

-start the serves and then build a job in Jenkins, while building in build steps select credentials that we have already set.

3. What is virtualization ?

-Anything which is not present physically but it still exists is called as virtual.

-Virutialization is the process of creating virtual machines on the host machine or on the servers using cloud services.

-So, the servers are present viturally but makes us feel as if they are present physically. –

-Virtualization creates VM’s which uses the hardware of the underlying system but has its own OS.

4.What is Docker?

Docker is open source containerization software which is used to create and maintain the containers . Docker helps developers to package their application into containers which enables easy deployment. Using micro web-services we make sure that if a feature is crashed only that feature is disabled and all other features still work.

5. What is EC2?

-EC2 is one of the service offered by amazon aws.

-EC2 stands for Elastic Cloud Service.

-EC2 helps us to create an instance. We use AMI and Keypairs to create an instance.

-AMI is the information that is required to launch an instance. It contains information regarding os, security groups, number of volumes to be attached ,etc.

-Keypairs are the secure logins. It is of two types, private and public.

-Instance are virtual servers.

6. Route 53

-Route 53 is also a service offered by amazon aws.

-Route 53 is a highly available and scaleable DNS server.

- This is primarily a global service.

-Route 53 is used to route the end users to an application.

-The ip address of the application is mapped to the domain name.

-Route 53 also offers domain name registration and we can also choose a custom domain name.

-We can also link application present in our EC2 instance.

-We can configure multiple traffic policies and also decide which policy is active at the current time and we can edit these traffic policies using simple visual text editor.

-using IAM we can grant unique credentials to the users in our AWS account and manage permissions and also specify who has permissions to which service.

7.About AWS Services.

Aws offeres reliable, scaleable and cost-effective cloud services. Before aws setting up servers and data centers was a hefty task and also would cost a great amount of money. If in case there was any disaster then the data centers would be damaged leading to a loss. After aws, the servers can be setup virtually and is also majorly pay-as-you-use services which can be scaled instantly. AWS offers Computing-EC2

storage -S3

network services-Route 53.

Few of the services offered by aws are:- EC2, EBS, S3, EFS, Route 53.

8. How do you change port number in Jenkins?

Open Jenkins folder and then search Jenkins xml file.

Open the xml file in a text editor and under service tag change the httpsport number and save it.

9.S3 storage.

-S3 is a storage service offered by aws. S3 stands for simple storage service.

-S3 is a region-specific service which is used to store large volume of data. This is also used to store data for a longer period of time.

-S3 is highly scaleable and stores data in the form of objects.

-S3 is pay-as-you-use service and S3 can be used to any instance.

Classes available in S3 are-

S3 standard, S3 infrequent access, S3 one zone infrequent access, S3 glacier, S3 glacier deep archieve.

10.Git commands you know.

Git init, git log, git merge, git rebase, git add, git commit, git fetch ,git push, git pull,git clone , git config, git remote.

11.diff btw git and github.

Git is a distributed version control system used by developers to write the source code and push it to Github. Using git we can make changes to the source code in the local repo.

Github is a open source web service. It a central repo which is used to store the source code pushed by the developer.

12. diff btw git fetch and git pull

git fetch is a command which will primarily download the metadata about the data that has been added to the central repo.

Metadata: the data which gives information about other data.

Git pull will download the metadata of the new file added as well as it will download the file into the local repo.

13. How do you resolve git merge conflict?

1. The easiest way to resolve a conflicted file is to open it and make any necessary changes
2. After editing the file, we can use the git add a command to stage the new merged content
3. The final step is to create a new commit with the help of the git commit command
4. Git will create a new merge commit to finalize the merge

Else we can also open github and open pull requests list, then we have to pull request with a merge conflict that we would like to resolve. Then near the bottom of pull request we have to select resolve conflicts then we have to make changes and push it.

14. Maven life cycle

|  |  |  |
| --- | --- | --- |
| **Phase** | **Handles** | **Description** |
| prepare-resources | resource copying | Resource copying can be customized in this phase. |
| validate | Validating the information | Validates if the project is correct and if all necessary information is available. |
| compile | compilation | Source code compilation is done in this phase. |
| Test | Testing | Tests the compiled source code suitable for testing framework. |
| package | packaging | This phase creates the JAR/WAR package as mentioned in the packaging in POM.xml. |
| install | installation | This phase installs the package in local/remote maven repository. |
| Deploy | Deploying | Copies the final package to the remote repository. |

15.Dockers

Docker is a software platform that allows you to build, test, and deploy applications quickly. Docker packages software into standardized units called containers that have everything the software needs to run including libraries, system tools, code, and runtime. Using Docker, you can quickly deploy and scale applications into any environment and know your code will run.

16. min and max capacity of s3

The storage capacity in s3 can range from 0 to 5TB.