

Kubernetes:

- 1) What is the architecture of kubernetes
- 2) What does control manager, etcd, scheduler, API server do
- 3) What is a manifest file and what are the components of it
- 4) What is node affinity, pod affinity, taint toleration
- 5) What is node port, cluster ip
- 6) What is persistent volumes and why we use it
- 7) Describe what is pod and what is pod lifecycle
- 8) What are the components on master and worker node
- 9) What is ingress controller
- 10) What are types of services in kubernetes
- 11) How one pod talks with other pod
- 12) How the pod healthcheck is done (describe readiness, liveness)
- 13) How the monitoring is done (integration on Prometheus and Grafana)
- 14) What is Deployment, ReplicaSet, Horizontal Pod Autoscaler
- 15) Write a manifest file of your own choice
- 16) What is namespace and why we use it
- 17) What are Helm charts and uses

Docker:

- 1) What is Docker architecture
- 2) What is Docker lifecycle
- 3) What is Dockerfile and Docker Compose file
- 4) Explain various layers in a Dockerfile
- 5) What is Docker networking and tell various types of network in Docker
- 6) What is default network in Docker
- 7) How one container talks with other container
- 8) How to debug the container
- 9) What is Docker Swarm
- 10) Tell some commands in Docker
- 11) What is difference between ADD/COPY, CMD/ENTRYPOINT, RUN/CMD
- 12) Tell the Dockerfile best practices
- 13) How to reduce a Dockerfile size
- 14) How to store the Dockerfile in Jfrog/DockerHub
- 15) How to create a Docker image if no internet connectivity is there
- 16) Write a Dockerfile and state various layers and use the depends_on concept
- 17) How to save a container as image and then as a zip file
- 18) What are Docker volumes

Linux:

- 1) What is booting process in Linux
- 2) What is inode in Linux how to increase it
- 3) What is logical volume and how to create it

- 4) What is swap partition and how to create
- 5) Tell me about some commands in linux
- 6) How to check the process port and name (netstat -tulnp)
- 7) How to kill a process
- 8) What are ACLs and firewall and selinux
- 9) How to do the networking using the nmcli
- 10) How to manage the disk space, RAM and memory
- 11) What is TOP command and how to fetch the data
- 12) What is load average in linux systems and what does three components of load average defines
- 13) How to assign the process the required amount of resource allocation
- 14) What is nohup and &
- 15) User management, file management, log management
- 16) How to use FIND command and search for logs old then 7 days
- 17) How to block the ip address in linux

Shell script

- 1) Write a shell script to fetch the data from rest api and take out the required fields
- 2) Write a shell script to extract the number of alphabets characters and digits and tell the count
- 3) Write a shell script to extract the ip addresses from a file and the count of similar ip address
- 4) Write a shell script to hit the rest api and modify the json data and put it back to the database
- 5) How to declare an array in shell script
- 6) What is crontab and tell some time set you have done
- 7) Why do we give #!/bin/sh at start of shell script
- 8) Write a shell script to find old logs and archive it
- 9) What is \$#, \$?, \$@ etc.. in linux shell script

CICD

- 1) Tell the design of CICD in your organization
- 2) What are various plugins in your Jenkins
- 3) What is difference between declarative and scripted pipeline
- 4) What is a groovy file and write groovy script what you have worked on
- 5) How each tool is integrated with Jenkins
- 6) Tell me the shell scripts used in Jenkins
- 7) How the auto increment of version is done in UI and MS
- 8) What is global credentials and how to make the passwords
- 9) What is sonarqube and how you define the thresholds

GITLAB

- 1) What is branching strategy used
- 2) How you make the push rules, access level grants
- 3) What is git pull and git fetch difference

- 4) What is git stash and git rebase
- 5) What is git revert
- 6) What is cherry pick
- 7) How you resolve the merge conflicts
- 8) What is git clone
- 9) How you designed your gitlab CI
- 10) What is difference between Gitlab and github
- 11) How the Jenkins talks with Gitlab

AWS:

- 1) What is VPC and its components (Public, private, NACL, Route tables, Internet gateway)
- 2) What is difference between NACL and Security groups
- 3) What are different types of load balancer and tell difference between Network and application load balancer
- 4) What is route 53, types of routing policy and routing used
- 5) What is ASG and Launch config
- 6) How to restore the login into ec2 if pem file is lost
- 7) How to encrypt the unencrypted AMI
- 8) What is EBS and EFS
- 9) What is VPC peering and VPC endpoint
- 10) What is S3/types of S3 bucket/S3 bucket policy/S3 lifecycle
- 11) What is IAM roles and how the cross region roles work
- 12) How to tell one EC2 to talk to other EC2 in other region
- 13) What is MySQL Aurora/Backup plan done/Master and reader endpoints/Failover mechanism
- 14) What is CloudFormation template/how a resource depends on other resource
- 15) What are important components of CloudFormation
- 16) Which is faster storage EBS or S3

ANSIBLE:

- 1) What is Ansible architecture
- 2) How a normal yaml file is different from Ansible playbook
- 3) What is Ansible playbook, define all terms in playbook
- 4) What are handlers and notifiers
- 5) What are registers
- 6) What are various modules you have used in Ansible
- 7) How to use when condition and loops in Ansible
- 8) Write a playbook to start a service, stop a service and check the health check of service
- 9) What are Ansible adhoc commands
- 10) What are roles and tell where you will keep the different files in different folders
- 11) What is Ansible vault and how you store the secret files
- 12) How the SSH connectivity takes place between two servers in Ansible

Security/Monitoring:

- 1) What is SAT and DAST
- 2) How fortify rules are placed? Can we change the rules
- 3) Different types of fortify errors and resolution
- 4) Blackduck errors
- 5) How the new relic is integrated with each microservice
- 6) What is SLO, SLI, SLA
- 7) What are the different dashboards created in New relic and Grafana

Design Diagrams:

- 1) Jenkins pipeline
- 2) AWS architecture

Managerial questions:

- 1) Tell me what was your most difficult situation you faced and you resolved
- 2) When you had issue with your management and how you convince them
- 3) How you have helped your peer
- 4) Did you get a chance to convince customers for your work
- 5) How the Jira tasks are assigned to your team
- 6) Tell me what your manager told negative point about you
- 7) Tell me you put time significant outside your work
- 8) Critical feedback from colleague and you worked
- 9) Give me an example of calculated risk where speed was critical
- 10) You worked on deadline and did not have options before taking decision