Outline

1. Git a. Create Group/Team b. Create first repo (devops) c. Add SSH key d. Create code repo e. Create protected branches f. .gitignore g. Set origin h. Add, commit, push i. Clone, fetch, pull j. Feature branch, merge request	
2. Cloud a. Provision Cloud Account (GCP) i. Signup for free account ii. IAM and Service Account iii. Install CLI (gcloud) iv. Create Firewall rules v. Create dev project vi. Reserve static IP for Ingress vii. Create VM Instance in dev project (GCE) viii. SSH VM using CLI	
3. Linux a. What is Linux b. Install git, curl, nano, wget c. Install JAVA 8 d. Install Jenkins	
4. Docker a. Create prod project i. Create Service Account b. Provision VM instance i. Install basic utilities ii. Add firewall rules iii. Install JAVA 8 c. Install Docker and Docker compose d. What is Docker i. Difference b/w Docker and Virtual machine ii. Docker Registry (DockerHub) iii. Create account on DockerHub iv. What is Docker Compose v. Pull and Run sample docker image e. Clone mysql docker compose and run	

5. DNS Configuration a. Set A record for phpmyadmin b. Set A record for Jenkins c. Set A record for Ingress	
6. Kubernetes a. Create cluster in dev project b. Install kubectl on local machine c. Install kubens and kubectx d. Create spring hello world project with Dockerfile e. Create Environment Variables on Local machine f. Create Docker image and push on Registry g. Create and run Kubernetes deployment i. Deployment.yml ii. Service.yml iii. Ingress.yml iv. ConfigMap.yml	
7. Jenkins a. Initial setup, plugins, base url b. Create credentials c. Create Pipeline for Dev project d. Write Declarative Script for Dev Pipeline e. Install Maven, Docker on host system.	
8. Theory a. Microservices i. 12 Factor	
9. Quiz and Lab	
10. Interview Questions	

Advanced Topics

1. Setup LetsEncrypt for SSL/TLS	
2. What is Helm chart	
3. HashiCorp Vault	
4. Grafana Dashboard	
5. Prometheus	
6. Teraform	

Pre requirements:

Internet

Hardware:

1. RAM Min 4 GB, 8 GB is recommended
2. CPU i5 or greater
3. Virtualization Feature enabled
4. 128 GB Hard disk

Operating System:

1. Ubuntu 18.04 (bionic) recommended
2. Any other Linux flavor
3. Mac High sierra +
4. Windows 10 (not recommended)

Softwares:

1. Chrome browser
2. Hangout/Zoom/Skype
3. JAVA 8
4. IntelliJ CE (Latest)
5. Virtualbox
6. Docker and Docker Compose