



Zero To Hero | DevSecOps & Cloud DevOps



1. Introduction:

- Detailed overview of DevOps and its importance in software development and operations.

2. LINUX:

- Linux For DevOps Engineers:
- Introduction to Linux command-line basics.
- Understanding Linux file system and permissions.
- Troubleshooting on Linux.
- Shell Scripting

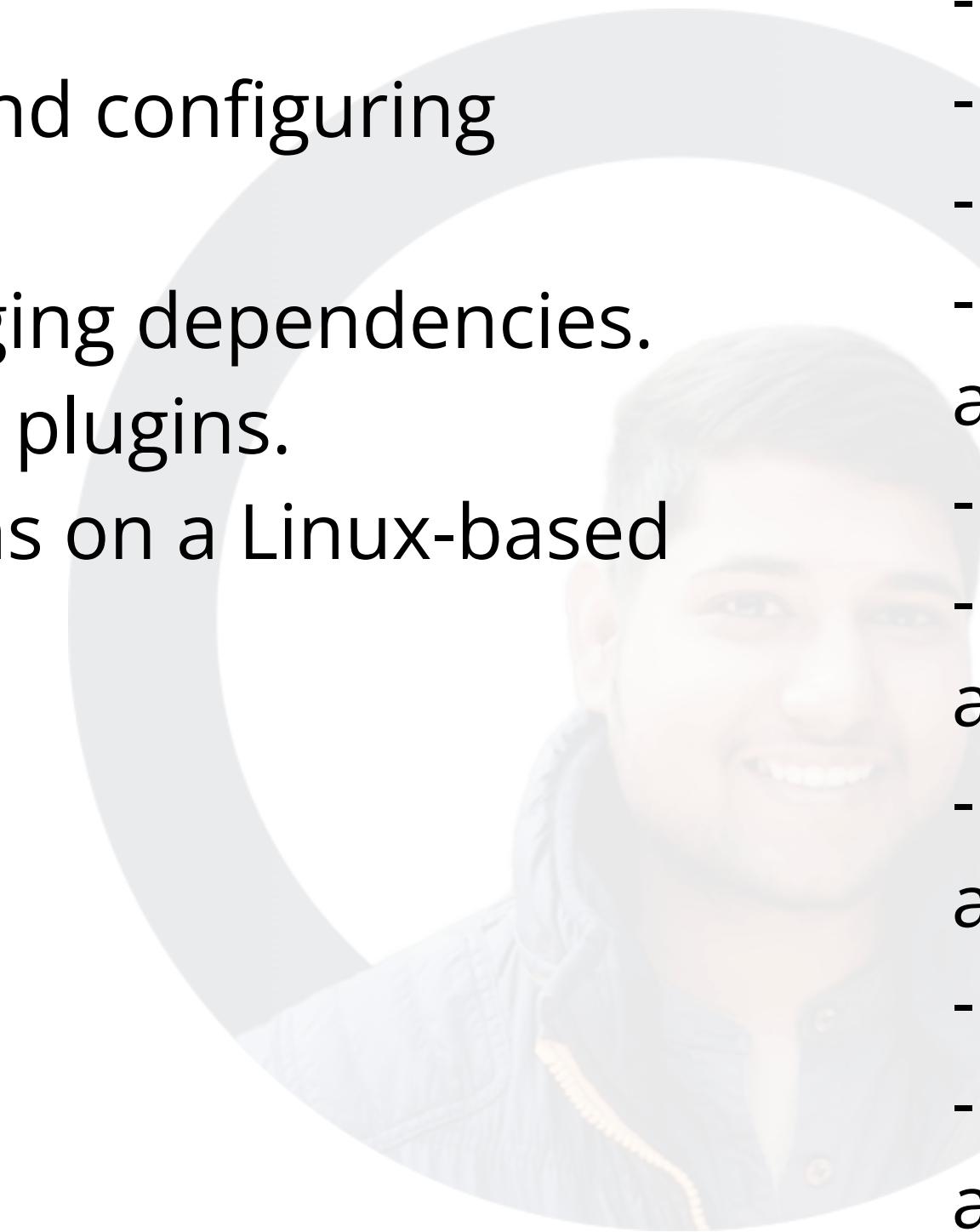
3. GIT:

- Git Deep Dive:
- Understanding Git version control system.
- Branching, merging, and resolving conflicts.
- Most used Git commands.



4. Build Tools:

- Maven (Deep Dive):
- Setting up Maven and configuring projects.
- Building and managing dependencies.
- Maven lifecycle and plugins.
- Running applications on a Linux-based machine.



5. CI/CD Tools:

- Jenkins (Deep Dive):
- Installing and configuring Jenkins.
- Creating and configuring Jenkins jobs.
- Working with Jenkins pipelines of all types and plugins.
- **GitHub Actions Pipeline:**
 - Setting up GitHub Actions for basic build and deployment.
 - Integrating SonarQube for code quality analysis.
- **Gitlab CI/CD Pipeline:**
 - Setting up GitLab CI/CD for basic build and deployment.
 - Integrating SonarQube for code quality analysis.



6. Security Tools:

- Sonarqube Deep Dive:
- Installing and configuring SonarQube.
- Analyzing code quality and security.
- Integrating SonarQube with Jenkins.
- **OWASP Dependency Check Deep Dive:**
 - Identifying and managing vulnerabilities in project dependencies.
 - Integrating OWASP Dependency Check with Jenkins.
- **TRIVY Scanner Tool Deep Dive:**
 - Scanning container images for vulnerabilities.
 - Integrating TRIVY with Jenkins.

7. Artifact Management

Using Nexus & Azure Artifacts

- Setting Up Nexus3
- Setting up nexus Repo
- Deploying artifacts to nexus
- Release Management

8. Containerisation Tool Docker

- Docker Deep Dive:
- Understanding Docker concepts and architecture.
- Building and managing Docker containers.
- Docker networking and storage.
- Docker Detailed Hands-On:
- Hands-on exercises with Docker.
- Dockerizing applications.
- Docker Integration With Jenkins:
- Integrating Docker with Jenkins for container-based builds.
- Application Deployment using Containers
- Deploying applications using Docker

9. Kubernetes:

- **Kubernetes Deep Dive:**

- Introduction to Kubernetes and its components.
- Deploying and managing applications on Kubernetes.
- Scaling and load balancing.
- **YAML:**
 - Understanding YAML syntax for Kubernetes configurations.
 - Writing deployment and service manifests.
- **JENKINS Integration:**
 - Integrating Jenkins with Kubernetes for deployments.
 - Deployment of a Fully Fledged Application:
 - Deploying a complete application on Kubernetes.





10. CLOUD DEVOPS:

- AZURE CLOUD & AZURE DEVOPS:

- Overview of Azure Cloud and important services.
- Setting up Azure DevOps.
- Building and deploying applications with Azure DevOps.
- SonarQube, OWASP Dependency Check, TRIVY Integration with Azure DevOps:
- Integrating code quality and security tools in Azure DevOps pipelines
- Using Azure Artifacts for package management.

- DOCKER with Azure Container Registry:

- Working with Docker images in Azure Container Registry.
- Deployment To Azure Kubernetes Service using YAML Files:
- Deploying applications to Azure Kubernetes Service using YAML.
- Azure Functions:
- Introduction to Azure Functions for serverless computing.



11. IAC :

- ANSIBLE Deep Dive:
- Installing and configuring Ansible.
- Running basic Ansible commands.
- Writing Ansible playbooks.
- TERRAFORM Deep Dive:
- Understanding Terraform concepts.
- Provisioning cloud resources with Terraform.
- Writing Terraform scripts.

12. Monitoring Tools:

- Prometheus Deep Dive
- Grafana Deep Dive
- Hands On monitoring with Grafana & Prometheus



13. RESUME:

- Create DevOps Resume:
- Tips for creating an effective DevOps resume.
- Projects for Fresher & Experienced:
- Suggested projects to include in your resume.
- Skills in Your Resume:
- How to effectively mention skills in your resume.
- Roles & Responsibilities:
- What roles and responsibilities to include in your resume.

14. PROJECTS:

- Corporate Level Projects:
- Understanding how corporate-level projects work.
- Exploring different types of corporate projects.