DevOps Masterclass

1. Overview of DevOps
   1. Why DevOps
   2. What is DevOps
   3. DevOps Market Trends
   4. DevOps Engineer Skills
   5. DevOps Delivery Pipeline
   6. DevOps Ecosystem
2. Version Control with GIT
   1. What is version control
   2. What is Git
   3. Why Git for your organization
   4. Install Git
   5. Common commands in Git
   6. Working with Remote Repositories
3. Git, Jenkins & Maven Integration
   1. Branching and Merging in Git
   2. Git workflows
   3. Git cheat sheet
   4. What is CI
   5. Why CI is Required
   6. Introduction to Jenkins (With Architecture)
   7. Introduction to Maven
4. Continuous Integration using Jenkins
   1. Jenkins Management
   2. Adding a slave node to Jenkins
   3. Building Delivery Pipeline
   4. Pipeline as a Code
5. Continuous Testing with Selenium
   1. Introduction to Selenium
   2. Why Selenium?
   3. Selenium – Webdriver
   4. Creating Test Cases in Selenium WebDriver (Waits)
   5. What and why X-Path
   6. Handling different controls on Webpage
   7. Framework in Selenium Selenium Integration with Jenkins
   8. Implementation of Selenium in the Edureka’s Project
6. Continuous Deployment: Containerization with Docker
   1. Shipping Transportation Challenges
   2. Introducing Docker
   3. Understanding images and containers
   4. Running Hello World in Docker
   5. Introduction to Container
   6. Container Life Cycle
   7. Sharing and Copying Base Image
   8. Docker File
   9. Working with containers
   10. Publishing Image on Docker Hub
7. Containerization with Docker: Ecosystem and Networking
   1. Introduction to Docker Ecosystem
   2. Docker Compose
   3. Managing Containers
   4. Running Containers
   5. Introduction to Docker Networking
   6. Network Types
   7. Docker Container Networking
8. Configuration Management with Ansible
   1. Introduction to Ansible
   2. Ansible Installation
   3. Configuring Ansible Roles
   4. Write Playbooks
   5. Executing adhoc command
9. Infrastructure as Code with Terraform
10. Containerization using Kubernetes
    1. Revisiting Kubernetes Cluster Architecture
    2. Spinning up a Kubernetes Cluster on Ubuntu VMs
    3. Exploring your Cluster Understanding YAML
    4. Creating a Deployment in Kubernetes using YAML
    5. Creating a Service in Kubernetes
    6. Installing Kubernetes Dashboard
    7. Deploying an App using Dashboard
    8. Using Rolling Updates in Kubernetes
    9. Containers and Container Orchestration
    10. Introduction to Kubernetes
11. Continuous Monitoring with Nagios
    1. Introduction to Continuous Monitoring
    2. Introduction to Nagios
    3. Installing Nagios Nagios Plugins(NRPE) and Objects
    4. Nagios Commands and Notification
12. Continuous Monitoring with Prometheus and Grafana
13. Continuous logging with Elasticsearch, Fluentd and Kibana
14. Introduction to DevOps on Cloud
    1. Why Cloud?
    2. Introduction to Cloud Computing
    3. Why DevOps on Cloud?
    4. Introduction to AWS Various AWS services
    5. DevOps using AWS