DevSecOps

Month 1: Foundations of DevSecOps and Security Fundamentals

Week 1: Introduction to DevSecOps

- Definition and principles of DevSecOps
- Importance of integrating security into DevOps
- Cultural shifts and collaboration

Week 2-3: Security Fundamentals for DevOps

- Basics of security concepts and terminology
- Threat modeling and risk assessment
- Security controls and compliance

Week 4-5: Secure Coding Practices

- Secure coding principles and guidelines
- Common vulnerabilities and secure coding practices
- Static Application Security Testing (SAST) tools

Week 6: Security Testing in DevOps

- Overview of security testing types (SAST, DAST, IAST)
- Integrating security testing into CI/CD pipelines
- Automated security testing tools

Month 2: Advanced DevSecOps Concepts and Implementation

Week 1-2: Container Security

- Understanding container security challenges
- Securing Docker containers and Kubernetes clusters
- Implementing security policies for containerized environments

Week 3-4: Infrastructure as Code (IaC) Security

- Introduction to IaC security practices
- Scanning and securing IaC scripts
- Automated security checks in IaC pipelines

Week 5-6: Incident Response and Continuous Improvement

- Developing an incident response plan for DevSecOps
- Post-incident analysis and continuous improvement
- Integrating security into DevOps culture