

Day - 1

- **Understanding DevOps**

- Understanding the software consumption trends
- Trends of software consumption in Past
- Software Development Model in past
- Trends of software consumption in Present day
- Software Development Model in Present day
- Challenges associated
- Challenges for Large Organization

- **What is DevOps?**

- Vision and Directions of DevOps
- Unify multiple platforms
- Automated BuildsDevOps is a Philosophy
- Business Benefits
- Non-Functional Benefits

- **Introducing DevOps Automation**

- Collaboration Tools
- Planning Tools
- Issue Tracking Tools
- Monitoring Tools
- Configuration Management Tools
- Dev Environment Tools

- **Understanding Cloud Security**

- Introduction
- Strong Passwords
- Social Engineering
- Cyber Security
- Phishing/Spear Phishing/Whaling
- How Physical and Information Security Complement Each Other
- Safer Digital Communications at Work
- Malware at Work
- Mobile Device Security
- Security for Cloud Services
- Identifying Personally Identifiable Information
- Better Security on the Road
- Brief Overview of Cloud Computing
- Cloud Security Considerations
- Security Best Practices for Clouds
- Other Cloud Security Considerations
- Conclusion

- **Problem that DevOps Solves**

- Organization Characteristics
- Integration Complexity

- Source Control Tools
- Build Automation Tools
- Packaging Management Tools
- Continuous Integration Tools
- Continuous Delivery Tools
- Rep Management Tools

- Organization Pain
- Identifying Waste

- **Making a DevOps Transition**

- Change Culture
- Why?
- Change Organization
- Address Objections
- Understanding Stereotypes
- Myths about DevOps

- **DevOps Best Practices in DevOps**

- Agile Development
- Test Driven Development
- Continuous Integration
- Continuous Delivery
- Continuous Deployment
- Microservices and Container world

- **Understanding Application & Infrastructure Security**

- Overview
- DevOps, Cloud, and Their Impact on Traditional Security Architecture
- DevOps Security in Paas, Iaas, and Saas Environments
- Traditional Software Development Security
- Securing the DevOps Pipeline

- **Addressing 2018 OWASP Security Guidelines as Part of the CI/CD Pipeline**

- SaaS Security Concepts
- PaaS Security Concepts
- IaaS Security Concepts
- Oracle CASB Cloud Security Demonstration

- **Securing Container Management and Orchestration Activities**

- Docker Container Overview
- Docker Container Security Demonstration
- Docker Architecture
- Docker Hardening
-

Dynamic Application Security Testing (DAST)

- **Fortify Webinspect for Dynamic Application Security Testing (DAST)**

- What is Fortify Webinspect?
- Why we need Fortify Webinspect?
- How Fortify Webinspect works!!!
- How to install and configure Fortify Webinspect?
- How to Configure Fortify Webinspect?
- Basic workflow usage of Fortify Webinspect?
- Advance workflow usage of Fortify Webinspect?

- **AppScan on Cloud**

- What is AppScan?
- Why we need AppScan?
- How AppScan works!!!
- How to install and configure AppScan?
- Basic workflow usage of AppScan?
- Advance workflow usage of AppScan?

- **AWS Security service - Understanding and Implementing Security aspect of AWS cloud.**

- Understanding Amazon Cognito and Basic use case scenario and workflow.
- Understanding AWS Directory Service and Basic use case scenario and workflow.
- Understanding AWS Identity & Access Management (IAM) and Basic use case scenario and workflow.
- Understanding AWS Resource Access Manager and Basic use case scenario and workflow.
- Understanding Amazon GuardDuty and Basic use case scenario and workflow.
- Understanding Amazon Inspector and Basic use case scenario and workflow.
- Understanding AWS Shield and Basic use case scenario and workflow.
- Understanding AWS Key Management Service (KMS) and Basic use case scenario and workflow.

Runtime application self-protection (RASP)

- **Twistkock - Understanding and Implementing Security aspect of Docker**

- What is Twistkock?
- Why we need Twistkock?
- How Twistkock works!!!
- How to install and configure Twistkock?
- Basic workflow usage of Twistkock?
- Advance workflow usage of Twistkock?

- **Notary - Understanding and Implementing Security aspect of Kubernetes**

- What is Notary?
- Why we need Notary?
- How Notary works!!!
- How to install and configure Notary?
- Basic workflow usage of Notary?
- Advance workflow usage of Notary?

- **NewRelic - Understanding and Implementing Security aspect of Java Virtual Machine**

- What is NewRelic?
- Why we need NewRelic?
- How NewRelic works!!!
- How to install and configure NewRelic?
- Basic workflow usage of NewRelic?
- Advance workflow usage of NewRelic?

- **Chef InSpec - For Scanning your applications and infrastructure**

- What is Chef InSpec?
- Why we need Chef InSpec?
- How Chef InSpec works!!!
- How to install and configure Chef InSpec?
- Basic workflow usage of Chef InSpec?
- Advance workflow usage of Chef InSpec?

- **ELK - For Log analysis related to Security Threat.**

- What is ELK?
- Why we need ELK?
- How Chef ELK works!!!
- How to install and configure ELK?
- Basic workflow usage of ELK?
- Advance workflow usage of ELK?

- **HashiCorp Vault - For security tool for certificates, API keys, or passwords**

- What is HashiCorp Vault?
- Why we need HashiCorp Vault?
- How Chef HashiCorp Vault works!!!
- How to install and configure HashiCorp Vault?
- Basic workflow usage of HashiCorp Vault?
- Advance workflow usage of HashiCorp Vault?

- **Fortify Application Defender - For Runtime Application Security Testing (RAST)**

- What is Fortify Application Defender?
- Why we need Fortify Application Defender?
- How Chef Fortify Application Defender works!!!
- How to install and configure Fortify Application Defender?
- Basic workflow usage of Fortify Application Defender?
- Advance workflow usage of Fortify Application Defender?