- **What is DevSecOps?**
  - o DevSecOps as part of DevOps
  - o Static Code Analysis
  - o Dynamic Code Analysis
  - o Secure Code Review
  - o Defect Classifications
  - o OWASP open web application security project
  - o CWE common weakness enumeration

- **DevOps and CI/CD Refresher**
  - o DevOps Basics
  - o Principles of DevOps
  - o DevOps Benefits
  - o Continuous Integration
  - o Continuous Deployment
  - o Continuous Delivery
  - o Typical CI/CD pipeline
  - o Deployment strategies

- **DevOps and CI/CD Refresher**
  - o Git
  - o Maven
  - o Docker
  - o Kubernetes
  - o Jenkins
  - o Bitbucket
  - o Travis
  - o OWASP ZAP/
  - o Ansible/Chef
  - o Inspec
  - o Terraform

- **Secure SDLC**
  - o What is Secure SDLC
  - o Secure SDLC Activities and Security Gates
  - o Requirements, Design, Implementation and Testing
  - o Deployment and Maintenance
  - o Embedding Security as part of CI/CD pipeline
  - o DevSecOps and challenges with Pentesting and Vulnerability Assessment.

- **DevSecOps Maturity Model (DSOMM)**
  - o Maturity levels and tasks involved
  - o 4-axes in DSOMM
  - o Going from Maturity Level 1 to Maturity Level 4
  - o Maturity level specific practices and challenges

Day - 2

- **Software Component Analysis (SCA)**
  - What is Software Component Analysis.
  - SCA Solutions
  - Embedding SCA tools into the pipeline
  - SCA Tool - Blackduck, Sonatype Nexus Lifecycle, JFrog Xray, Snyk

- **SAST (Static Analysis Security Testing)**
  - What is Static Application Security Testing.
  - Embedding SAST tools in the pipeline.
  - Preventing secrets exposure in the code.
  - SAST Tool - Checkmarx, Veracode, Fortify, Coverity etc

- **DAST (Dynamic Analysis Security Testing)**
  - What is Dynamic Application Security Testing?
  - Session management & AJAX Crawling
  - DAST tools
  - SSL misconfiguration testing
  - Creating baseline scans for DAST.
  - Scan frequencies
  - DAST Tool - Burp, AppScan, OWASP ZAP

- **Infrastructure as Code (IaaC)**
  - What is Infrastructure as Code?
  - Benefits of Infrastructure as Code
  - Building Blocks
  - Configuration Management Systems
  - Ansible
  - Modules, tasks, roles and Playbooks

- **Compliance as code**
  - Handling Compliance Requirements
  - Using configuration management to achieve compliance.
  - Inspec / OpenScap

- **Vulnerability Management**
  - Managing vulnerabilities in the organization.
  - Defect Dojo
  - RiskSense