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| **Day** | **Time Schedule** | **Topics Covered** |
| 1 | 9:30 Am – 11:30 Am | * **Supply chain security secure supply chain** * **Runtime Security behavior analysis at host and container** * **Runtime Security-immutable container** * **Runtime security auditing** |
|  | 11:30 Am – 11:40 am | Tea Break |
|  | 11:40 am – 1pm | * **Helm Charts** |
|  | 1pm – 1:40 pm | Lunch break |
|  | 1:40 pm – 4:00 pm | * **CI/CD Pipeline Setup With Jenkins , Docker, Kubernetes** |
|  | 4:00 pm – 4:10 pm | Tea Break |
|  | 4:10 pm – 6:30 pm | * **Creating a EKS Cluster with Terraform.** * **Prometheus and Grafana** |
|  | 6:30 pm – 7:30 pm | * **Assessment** |

**1. Supply chain security secure supply chain**

Introduction

Practice - Image Digest

Practice - Whitelist Registries with OPA

ImagePolicyWebhook

Practice - ImagePolicyWebhook

TEST - Complete ImagePolicyWebhook Setup

TEST - Use Image Digest

**2. Runtime Security behavior analysis at host and container**

introduction

Practice - Strace

Practice - Strace and /proc on ETCD

Practice - /proc and env variables

Practice - Falco and Installation

Practice - Use Falco to find malicious processes

Practice - Investigate Falco rules

Practice - Change Falco Rule

**3**. **Runtime Security-immutable container**

Introduction

Ways to enforce immutability

Practice - StartupProbe changes container

Practice - SecurityContext renders container immutable

TEST - Immutability Readonly Filesystem

**4. Runtime security auditing**

Introduction

Practice - Enable Audit Logging in Apiserver

Practice - Create Secret and check Audit Logs

Practice - Create advanced Audit Policy

**5. Helm Charts**

**6. CI/CD Pipeline Setup With Jenkins , Docker, Kubernetes**

**7. Creating a EKS Cluster with Terraform.**

**8. Prometheus and Grafana**