**Duration: 3 Days (24 Hours)**

**Day 1: Introduction to Kubernetes and DevOps**

* Introduction to DevOps:
  + Define DevOps and its significance in modern software development practices.
  + Discuss the principles, goals, and benefits of implementing DevOps methodologies.
* DevOps Tools Overview:
  + Brief introduction to various DevOps tools:
    - Continuous Integration & Continuous Delivery (CI/CD) with Jenkins.
    - Containerization with Docker.
    - Logging with Splunk.
* Introduction to Kubernetes (Continued):
  + Recap the importance of containerization and container orchestration in the DevOps workflow.
  + Explore the need for Kubernetes in managing containerized applications.
  + Explain Kubernetes architecture and its core components.
  + Conduct a demonstration of installing and setting up a Kubernetes cluster.
  + Cover Kubernetes core concepts:
    - Pods: The Basic Units of Kubernetes.
    - Deployments: Managing Replica Sets.

**Day 2: Kubernetes Services, Configurations, and Introduction to TeamCity**

* Kubernetes Services:
  + Explain the role of services in exposing applications within the Kubernetes cluster.
* ConfigMaps and Secrets:
  + Discuss the use of ConfigMaps and Secrets for managing configuration data and sensitive information.
* Configuration Management with Ansible.
  + - Ansible operations
* Jenkins overview.
* Jenkins pipeline showcasing operations with ansible , docker as containerized application on Jnekins.

**Day 3: TeamCity Setup, Codefresh Overview**

* Introduction to TeamCity:
  + Welcome and Introductions.
  + Overview of Continuous Integration (CI) and Continuous Deployment (CD).
  + Introduction to TeamCity: What is it and its key features.
  + Benefits of using TeamCity for CI/CD.
* Codefresh Overview:
  + Introduction to Codefresh.
  + Overview of the Codefresh platform and its benefits for CI/CD.
* Getting Started with Codefresh: