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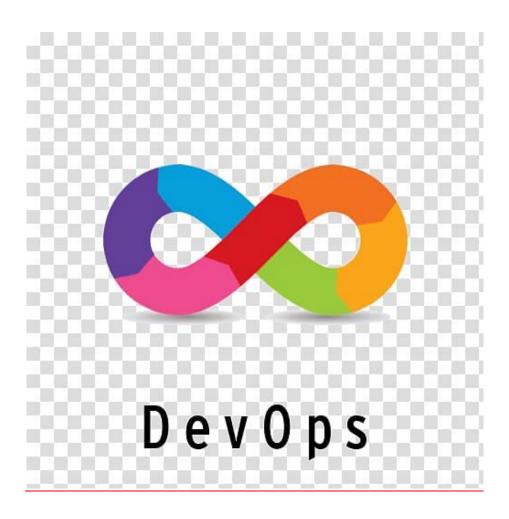
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ArgoCD Labs
Lab 11

Deploying an NGINX Application with ArgoCD on Kubernetes

Lab Objectives

- Installing and Configuring ArgoCD on a Kubernetes Cluster
- Accessing and Managing the ArgoCD Web Interface
- Creating and Managing Applications in ArgoCD
- Synchronizing Applications Between GitHub and Kubernetes
- Verifying Application Deployment and Health Status
- Monitoring Deployments via the ArgoCD Dashboard

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Objective:
Install ArgoCD on a Kubernetes cluster and deploy an NGINX application using YAML manifests from the GitHub repository:
Lab Requirements:
 A running Kubernetes cluster (Minikube or any other environment) kubectl installed and configured
A web browser to access the ArgoCD GUI
Active internet connection
Lab Tasks:
Task 1 – Install ArgoCD
 Create a namespace for ArgoCD. Deploy the official ArgoCD manifests inside the namespace.
Task 2 – Access ArgoCD Web UI
Forward the argocd-server service port.
Open the ArgoCD web interface in your browser.
Log in using the admin credentials retrieved from the cluster.
Task 3 – Create an Application (GUI Only)
 From the ArgoCD dashboard, click "NEW APP". Configure the app to point to the provided GitHub repository.

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Task 4 - Sync the Application

- From the **ArgoCD dashboard**, select your application.
- Click **Sync** to deploy the manifests to the Kubernetes cluster.

Task 5 - Verify the Deployment

- View **resources** in the GUI (Deployment and Service).
- Check that the **NGINX service** is accessible through the exposed port.

Expected Deliverables:

- A working ArgoCD dashboard showing the deployed NGINX application.
- Application state marked as **Synced** and **Healthy**.

You are Welcome