aks-ci-cd.md 2025-03-06

AKS CI/CD Workflow Using GitHub Actions

Prerequisites

1. GitHub Account

Click GitHub for AKS CI/CD Workflow.

Steps:

- 1. Create a GitHub repository.
- 2. Add your project files and folders to the repository.
- 3. Create .github folder in project directory.
- 4. Inside it, create a /workflows folder.
- 5. Create aks-ci-cd.yml file and store it in above-created .github/workflows directory.
- 6. Define the name and following map of env variables:
 - ACR_LOGIN_SERVER
 - ACR_NAMESPACE
 - ACR_REPOSITORY_NAME
 - ACR_IMAGE_TAG
 - RESOURCE_GROUP_NAME
 - AKS_CLUSTER_NAME
- 7. Define the on to set which events can cause the workflow to run.
- 8. Define the following actions to build & push i.e Continuous Integration (CI):
 - Checkout the repo
 - actions/checkout@v4
 - Login to ACR
 - azure/docker-login@v2
 - Build and push the image
 - docker/build-push-action@v5
- 9. Define the following actions to deploy the pod i.e Continuous Deployment (CD):
 - Azure login
 - azure/login@v2
 - Set context to AKS cluster
 - azure/aks-set-context@v4
 - Create k8s secret
 - azure/k8s-create-secret@v4
 - Deploy to AKS cluster
 - azure/k8s-deploy@v5