

EKS CI/CD Workflow Using GitHub Actions

Prerequisites

1. GitHub Account

Click [GitHub](#) for EKS CI/CD Code.

Steps:

1. Create a github repository.
 2. Add your project files and folders in the repository.
 3. Create `.github` folder in project directory.
 4. Inside it, create `/workflows` directory.
 5. Create `eks-ci-cd.yml` file and store it in above-created `.github/workflows` directory.
 6. Define the *name* and following map of *env variables*:
 - AWS_REGION
 - ROLE_TO_ASSUME
 - ECR_REGISTRY_URI
 - ECR_REPOSITORY_NAME
 - ECR_IMAGE_TAG
 - EKS_CLUSTER_NAME
 7. Define the **on** to set which events can cause the workflow to run.
 8. Define the following **actions** for build & push i.e **Continuous Integration (CI)**:
 - Checkout the repo
 - actions/checkout@v4
 - Configure the AWS credentials
 - aws-actions/configure-aws-credentials@v4
 - Login to Amazon ECR
 - aws-actions/amazon-ecr-login@v2
 - Build and push the image
 - docker/build-push-action@v5
 9. Run the following to deploy the pod i.e **Continuous Deployment (CD)**:
 - Update kube config
 - aws eks update-kubeconfig --name \${{ env.EKS_CLUSTER_NAME }} --region \${{ env.AWS_REGION }}
 - Deploy to EKS
 - sed -i.bak "s|DOCKER_IMAGE|\${{ env.ECR_REGISTRY_URI }}/\${{ env.ECR_REPOSITORY_NAME }}: \${{ env.ECR_IMAGE_TAG }}|g" ./kubernetes/app/deployment.yml &&
kubectl apply -f ./kubernetes/app/deployment.yml
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