

ECS CI/CD Workflow Using GitHub Actions

Prerequisites

1. GitHub Account
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Click [GitHub](#) for ECS 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 `ecs-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
 - ECS_CLUSTER_NAME
 - ECS_SERVICE_NAME
 - ECS_TASK_DEFINITION_FAMILY_NAME
 - ECS_TASK_DEFINITION
 - ECS_CONTAINER_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
 - 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. Define the following **actions** to deploy the container i.e **Continuous Deployment (CD)**:
 - Run the following to download the task definition
 - aws ecs describe-task-definition --task-definition \${env.ECS_TASK_DEFINITION_FAMILY} --query taskDefinition > task-definition.json
 - Fill in the new image ID in the Amazon ECS task definition
 - aws-actions/amazon-ecs-render-task-definition@v1
 - Deploy Amazon ECS task definition
 - aws-actions/amazon-ecs-deploy-task-definition@v2