

Create the CI/CD Components

Create the CI/CD components: ECR, CodeCommit, CodeBuild and CodePipeline

1

```
cd ~/environment/tfekscod/cicd
```

Initialize Terraform

1

```
terraform init
```

Validate the Terraform code

1

```
terraform validate
```

Success! The configuration is valid.

Plan the deployment:

1

```
terraform plan -out tfplan
```

```
data.aws_caller_identity.current: Reading...
```

```
data.aws_ssm_parameter.sub-isol3: Reading...
```

```
....
```

```
data.aws_security_group.cicd: Read complete after 0s [id=sg-093f4d145ed9f4cea]
```

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:

+ create

Terraform will perform the following actions:

```
# aws_codebuild_project.eks-cicd-build-app will be created
```

```
+ resource "aws_codebuild_project" "eks-cicd-build-app" {
```

```
  + arn              = (known after apply)
```

```

+ badge_enabled    = false
+ badge_url        = (known after apply)
+ build_timeout    = 60
+ description      = (known after apply)
+ encryption_key   = "arn:aws:kms:eu-west-1:440018911661:alias/aws/s3"
+ id              = (known after apply)
+ name            = "eks-cicd-build-app"
+ project_visibility = "PRIVATE"
+ public_project_alias = (known after apply)
+ queued_timeout   = 480
+ service_role     = (known after apply)
+ source_version    = "refs/heads/master"
+ tags_all         = (known after apply)

+ artifacts {
  + encryption_disabled = false
  + override_artifact_name = false
  + type                 = "NO_ARTIFACTS"
}

+ cache {
  + modes = []
  + type = "NO_CACHE"
}

+ environment {
  + compute_type      = "BUILD_GENERAL1_SMALL"
  + image             = "aws/codebuild/amazonlinux2-x86_64-standard:3.0"
  + image_pull_credentials_type = "CODEBUILD"
  + privileged_mode    = false
  + type              = "LINUX_CONTAINER"
}

+ logs_config {
  + cloudwatch_logs {
    + status = "ENABLED"
  }
}

```

```

    }
    + s3_logs {
      + encryption_disabled = false
      + status              = "DISABLED"
    }
  }

+ source {
  + git_clone_depth  = 1
  + insecure_ssl     = false
  + location         = (known after apply)
  + report_build_status = false
  + type             = "CODECOMMIT"

  + git_submodules_config {
    + fetch_submodules = false
  }
}

+ vpc_config {
  + security_group_ids = [
    + "sg-093f4d145ed9f4cea",
  ]
  + subnets           = [
    + "subnet-0890022b69bb625f0",
  ]
  + vpc_id             = "vpc-08d451043288a349a"
}
}

```

....

```

# aws_s3_bucket_versioning.codepipeline-bucket will be created
+ resource "aws_s3_bucket_versioning" "codepipeline-bucket" {
  + bucket = (known after apply)
  + id     = (known after apply)
}

```

```
+ versioning_configuration {  
  + mfa_delete = (known after apply)  
  + status     = "Enabled"  
}  
}
```

null_resource.auth-cidr will be created

```
+ resource "null_resource" "auth-cidr" {  
  + id      = (known after apply)  
  + triggers = {}  
}
```

Plan: 21 to add, 0 to change, 0 to destroy.

Saved the plan to: tfplan

To perform exactly these actions, run the following command to apply:

```
terraform apply "tfplan"
```

You can see from the plan the following resources will be created:

- ☐ A CodeCommit repository
- ☐ A CodeBuild service for running build and deploy operations
- ☐ A CodePipeline implementation to orchestrate the triggering of the CodeBuild
- ☐ A pull through cache for public.ecr.aws
- ☐ Policies and Roles for CodePipeline and CodeBuild
- ☐ A git user for the CodeCommit repo

Build the environment:

terraform apply tfplan

aws_iam_policy.AWSCodePipelineServiceRole-pipe-eksworkshop-app: Creating...

aws_iam_role.codebuild-eks-cicd-build-app-service-role: Creating...

aws_ecr_pull_through_cache_rule.quay: Creating...

....

aws_codepipeline.pipe-eksworkshop-app: Creation complete after 8s [id=pipe-eksworkshop-app]

aws_codebuild_project.eks-cicd-build-app: Still creating... [11s elapsed]

aws_codebuild_project.eks-cicd-build-app: Creation complete after 17s [id=arn:aws:codebuild:eu-west-1:440018911661:project/eks-cicd-build-app]

Apply complete! Resources: 21 added, 0 changed, 0 destroyed.