```
jees-macbook:zone2 jeesantony$ terraform init
Initializing the backend...
Initializing modules...
Initializing provider plugins...
- terraform.io/builtin/terraform is built in to Terraform
- Reusing previous version of hashicorp/kubernetes from the
dependency lock file
- Reusing previous version of hashicorp/aws from the dependency
lock file
- Using previously-installed hashicorp/kubernetes v2.24.0
- Using previously-installed hashicorp/aws v5.31.0
Terraform has been successfully initialized!
You may now begin working with Terraform. Try running
"terraform plan" to see
any changes that are required for your infrastructure. All Terraform
commands
should now work.
If you ever set or change modules or backend configuration for
Terraform,
rerun this command to reinitialize your working directory. If you
forget, other
commands will detect it and remind you to do so if necessary.
jees-macbook:zone2 jeesantony$ terraform apply
data.terraform_remote_state.vpc: Reading...
data.aws_caller_identity.current: Reading...
data.aws_iam_role.eks_node_role: Reading...
data.aws_iam_role.eks_cluster_role: Reading...
module.project_eks.data.aws_iam_policy_document.eks_node_
assume_role_policy: Reading...
data.aws_ami.amazon_linux_2: Reading...
data.aws_iam_policy.cloudwatch-policy: Reading...
module.project_eks.data.aws_iam_policy_document.eks_node_
```

```
assume_role_policy: Read complete after 0s [id=2851119427]
data.aws_iam_policy.instance-policy: Reading...
module.project_eks.data.aws_iam_policy_document.eks_assume_role_policy: Reading...
module.project_eks.data.aws_iam_policy_document.eks_assume_role_policy: Read complete after 0s [id=3552664922]
data.aws_caller_identity.current: Read complete after 0s [id=810716384126]
data.aws_iam_role.eks_cluster_role: Read complete after 1s [id=app-udacity-eks-cluster-role]
data.aws_iam_role.eks_node_role: Read complete after 1s [id=app-udacity-eks-node-role]
data.aws_ami.amazon_linux_2: Read complete after 2s [id=ami-0967795d5c824c5da]
data.terraform_remote_state.vpc: Read complete after 3s
data.aws_iam_policy.instance-policy: Read complete after 9s [id=arn:aws:iam::810716384126:policy/app-udacity-instance-policy]
data.aws_iam_policy.cloudwatch-policy: Still reading... [10s elapsed]
data.aws_iam_policy.cloudwatch-policy: Read complete after 11s [id=arn:aws:iam::810716384126:policy/app-udacity-eks-cluster-role-cloudwatch-policy]
Terraform used the selected providers to generate the following execution plan. Resource actions are
indicated with the following symbols:
  + create
 <= read (data resources)
Terraform will perform the following actions:
  # data.aws_eks_cluster.cluster will be read during apply
  # (config refers to values not yet known)
```

```
<= data "aws_eks_cluster" "cluster" {
    + arn                   = (known after apply)
    + certificate_authority = (known after apply)
    + cluster_id            = (known after apply)
    + created_at            = (known after apply)
    + enabled_cluster_log_types = (known after apply)
    + endpoint              = (known after apply)
    + id                    = (known after apply)
    + identity              = (known after apply)
    + kubernetes_network_config = (known after apply)
    + name                  = (known after apply)
    + outpost_config        = (known after apply)
    + platform_version      = (known after apply)
    + role_arn              = (known after apply)
    + status                = (known after apply)
    + tags                  = (known after apply)
    + version               = (known after apply)
    + vpc_config            = (known after apply)
  }
# data.aws_eks_cluster_auth.cluster will be read during apply
# (config refers to values not yet known)
<= data "aws_eks_cluster_auth" "cluster" {
    + id    = (known after apply)
    + name  = (known after apply)
    + token = (sensitive value)
  }
# kubernetes_namespace.udacity will be created
+ resource "kubernetes_namespace" "udacity" {
    + id                           = (known after apply)
    + wait_for_default_service_account = false
    + metadata {
        + generation       = (known after apply)
```

```
      + name             = "udacity"
      + resource_version = (known after apply)
      + uid              = (known after apply)
    }
  }
  # kubernetes_service.grafana-external will be created
  + resource "kubernetes_service" "grafana-external" {
    + id                   = (known after apply)
    + status               = (known after apply)
    + wait_for_load_balancer = true
    + metadata {
      + annotations      = {
          +
"service.beta.kubernetes.io/aws-load-balancer-nlb-target-type" =
"ip"
          + "service.beta.kubernetes.io/aws-load-balancer-type"
= "nlb"
        }
      + generation       = (known after apply)
      + name             = "grafana-external"
      + namespace        = "monitoring"
      + resource_version = (known after apply)
      + uid              = (known after apply)
    }
    + spec {
      + allocate_load_balancer_node_ports = true
      + cluster_ip                        = (known after apply)
      + cluster_ips                       = (known after apply)
      + external_traffic_policy           = (known after apply)
      + health_check_node_port            = (known after apply)
      + internal_traffic_policy           = (known after apply)
      + ip_families                       = (known after apply)
```

```
      + ip_family_policy                 = (known after apply)
      + publish_not_ready_addresses      = false
      + selector                         = {
          + "app.kubernetes.io/name" = "grafana"
        }
      + session_affinity                 = "None"
      + type                             = "LoadBalancer"
      + port {
          + node_port   = (known after apply)
          + port        = 80
          + protocol    = "TCP"
          + target_port = "3000"
        }
    }
  }
# module.project_ec2.aws_instance.ubuntu[0] will be created
+ resource "aws_instance" "ubuntu" {
    + ami                                  = "ami-063d2f012ccad1ebd"
    + arn                                  = (known after apply)
    + associate_public_ip_address          = (known after apply)
    + availability_zone                    = (known after apply)
    + cpu_core_count                       = (known after apply)
    + cpu_threads_per_core                 = (known after apply)
    + disable_api_stop                     = (known after apply)
    + disable_api_termination              = (known after apply)
    + ebs_optimized                        = (known after apply)
    + get_password_data                    = false
    + host_id                              = (known after apply)
    + host_resource_group_arn              = (known after apply)
    + iam_instance_profile                 = (known after apply)
    + id                                   = (known after apply)
    + instance_initiated_shutdown_behavior = (known after apply)
```

```
  + instance_lifecycle                 = (known after apply)
  + instance_state                     = (known after apply)
  + instance_type                      = "t3.micro"
  + ipv6_address_count                 = (known after apply)
  + ipv6_addresses                     = (known after apply)
  + key_name                           = "udacity_west"
  + monitoring                         = (known after apply)
  + outpost_arn                        = (known after apply)
  + password_data                      = (known after apply)
  + placement_group                    = (known after apply)
  + placement_partition_number         = (known after apply)
  + primary_network_interface_id       = (known after apply)
  + private_dns                        = (known after apply)
  + private_ip                         = (known after apply)
  + public_dns                         = (known after apply)
  + public_ip                          = (known after apply)
  + secondary_private_ips              = (known after apply)
  + security_groups                    = (known after apply)
  + source_dest_check                  = true
  + spot_instance_request_id           = (known after apply)
  + subnet_id                          = "subnet-0b372db6494eb3995"
  + tags                               = {
      + "Name" = "Ubuntu-Web"
    }
  + tags_all                           = {
      + "Name"      = "Ubuntu-Web"
      + "Terraform" = "true"
    }
  + tenancy                            = (known after apply)
  + user_data                          = (known after apply)
  + user_data_base64                   = (known after apply)
  + user_data_replace_on_change        = false
```

```
    + vpc_security_group_ids              = (known after apply)
  }
# module.project_ec2.aws_instance.ubuntu[1] will be created
+ resource "aws_instance" "ubuntu" {
    + ami                                 = "ami-063d2f012ccad1ebd"
    + arn                                 = (known after apply)
    + associate_public_ip_address         = (known after apply)
    + availability_zone                   = (known after apply)
    + cpu_core_count                      = (known after apply)
    + cpu_threads_per_core                = (known after apply)
    + disable_api_stop                    = (known after apply)
    + disable_api_termination             = (known after apply)
    + ebs_optimized                       = (known after apply)
    + get_password_data                   = false
    + host_id                             = (known after apply)
    + host_resource_group_arn             = (known after apply)
    + iam_instance_profile                = (known after apply)
    + id                                  = (known after apply)
    + instance_initiated_shutdown_behavior = (known after apply)
    + instance_lifecycle                  = (known after apply)
    + instance_state                      = (known after apply)
    + instance_type                       = "t3.micro"
    + ipv6_address_count                  = (known after apply)
    + ipv6_addresses                      = (known after apply)
    + key_name                            = "udacity_west"
    + monitoring                          = (known after apply)
    + outpost_arn                         = (known after apply)
    + password_data                       = (known after apply)
    + placement_group                     = (known after apply)
    + placement_partition_number          = (known after apply)
    + primary_network_interface_id        = (known after apply)
    + private_dns                         = (known after apply)
```

```
    + private_ip                          = (known after apply)
    + public_dns                           = (known after apply)
    + public_ip                           = (known after apply)
    + secondary_private_ips               = (known after apply)
    + security_groups                     = (known after apply)
    + source_dest_check                    = true
    + spot_instance_request_id             = (known after apply)
    + subnet_id                           = "subnet-0b372db6494eb3995"
    + tags                                = {
        + "Name" = "Ubuntu-Web"
      }
    + tags_all                            = {
        + "Name"      = "Ubuntu-Web"
        + "Terraform" = "true"
      }
    + tenancy                             = (known after apply)
    + user_data                           = (known after apply)
    + user_data_base64                    = (known after apply)
    + user_data_replace_on_change         = false
    + vpc_security_group_ids              = (known after apply)
  }
# module.project_ec2.aws_instance.ubuntu[2] will be created
+ resource "aws_instance" "ubuntu" {
    + ami                                 = "ami-063d2f012ccad1ebd"
    + arn                                 = (known after apply)
    + associate_public_ip_address         = (known after apply)
    + availability_zone                   = (known after apply)
    + cpu_core_count                       = (known after apply)
    + cpu_threads_per_core                = (known after apply)
    + disable_api_stop                    = (known after apply)
    + disable_api_termination             = (known after apply)
    + ebs_optimized                       = (known after apply)
```

```
  + get_password_data                    = false
  + host_id                              = (known after apply)
  + host_resource_group_arn              = (known after apply)
  + iam_instance_profile                 = (known after apply)
  + id                                   = (known after apply)
  + instance_initiated_shutdown_behavior = (known after apply)
  + instance_lifecycle                   = (known after apply)
  + instance_state                       = (known after apply)
  + instance_type                        = "t3.micro"
  + ipv6_address_count                   = (known after apply)
  + ipv6_addresses                       = (known after apply)
  + key_name                             = "udacity_west"
  + monitoring                           = (known after apply)
  + outpost_arn                          = (known after apply)
  + password_data                        = (known after apply)
  + placement_group                      = (known after apply)
  + placement_partition_number           = (known after apply)
  + primary_network_interface_id         = (known after apply)
  + private_dns                          = (known after apply)
  + private_ip                           = (known after apply)
  + public_dns                           = (known after apply)
  + public_ip                            = (known after apply)
  + secondary_private_ips                = (known after apply)
  + security_groups                      = (known after apply)
  + source_dest_check                    = true
  + spot_instance_request_id             = (known after apply)
  + subnet_id                            = "subnet-0b372db6494eb3995"
  + tags                                 = {
      + "Name" = "Ubuntu-Web"
    }
  + tags_all                             = {
      + "Name"      = "Ubuntu-Web"
```

```
      + "Terraform" = "true"
    }
  + tenancy                              = (known after apply)
  + user_data                            = (known after apply)
  + user_data_base64                     = (known after apply)
  + user_data_replace_on_change          = false
  + vpc_security_group_ids               = (known after apply)
 }
 # module.project_ec2.aws_security_group.ec2_sg will be
created
 + resource "aws_security_group" "ec2_sg" {
  + arn                    = (known after apply)
  + description            = "Managed by Terraform"
  + egress                 = [
    + {
      + cidr_blocks      = [
        + "0.0.0.0/0",
       ]
      + description      = ""
      + from_port        = 0
      + ipv6_cidr_blocks = []
      + prefix_list_ids  = []
      + protocol         = "-1"
      + security_groups  = []
      + self             = false
      + to_port          = 0
     },
   ]
  + id                     = (known after apply)
  + ingress                = [
    + {
      + cidr_blocks      = [
```

```
      + "0.0.0.0/0",
      ]
    + description      = "monitoring"
    + from_port        = 9100
    + ipv6_cidr_blocks = []
    + prefix_list_ids  = []
    + protocol         = "tcp"
    + security_groups  = []
    + self             = false
    + to_port          = 9100
  },
+ {
    + cidr_blocks      = [
      + "0.0.0.0/0",
      ]
    + description      = "ssh port"
    + from_port        = 22
    + ipv6_cidr_blocks = []
    + prefix_list_ids  = []
    + protocol         = "tcp"
    + security_groups  = []
    + self             = false
    + to_port          = 22
  },
+ {
    + cidr_blocks      = [
      + "0.0.0.0/0",
      ]
    + description      = "web port"
    + from_port        = 80
    + ipv6_cidr_blocks = []
    + prefix_list_ids  = []
```

```
            + protocol        = "tcp"
            + security_groups  = []
            + self            = false
            + to_port         = 80
          },
      ]
    + name                   = "ec2_sg"
    + name_prefix            = (known after apply)
    + owner_id               = (known after apply)
    + revoke_rules_on_delete = false
    + tags                   = {
        + "Name" = "ec2_sg"
      }
    + tags_all               = {
        + "Name"      = "ec2_sg"
        + "Terraform" = "true"
      }
    + vpc_id                 = "vpc-099aea294f35d1a58"
  }
# module.project_eks.aws_eks_cluster.cluster will be created
+ resource "aws_eks_cluster" "cluster" {
    + arn                   = (known after apply)
    + certificate_authority = (known after apply)
    + cluster_id            = (known after apply)
    + created_at            = (known after apply)
    + endpoint              = (known after apply)
    + id                    = (known after apply)
    + identity              = (known after apply)
    + name                  = "udacity-cluster"
    + platform_version      = (known after apply)
    + role_arn              =
"arn:aws:iam::810716384126:role/app-udacity-eks-cluster-role"
```

```
    + status               = (known after apply)
    + tags_all             = {
        + "Name"      = "udacity"
        + "Terraform" = "true"
      }
    + version              = "1.28"
    + vpc_config {
        + cluster_security_group_id = (known after apply)
        + endpoint_private_access   = false
        + endpoint_public_access    = true
        + public_access_cidrs       = (known after apply)
        + security_group_ids        = (known after apply)
        + subnet_ids                = [
            + "subnet-07e48fcbaa301e007",
            + "subnet-0ed8114a8eb572da0",
          ]
        + vpc_id                    = (known after apply)
      }
  }
 # module.project_eks.aws_eks_node_group.node will be
created
 + resource "aws_eks_node_group" "node" {
    + ami_type              = (known after apply)
    + arn                   = (known after apply)
    + capacity_type         = (known after apply)
    + cluster_name          = "udacity-cluster"
    + disk_size             = (known after apply)
    + id                    = (known after apply)
    + instance_types        = [
        + "t3.medium",
      ]
    + node_group_name       = "app-udacity-node-group"
```

```
    + node_group_name_prefix = (known after apply)
    + node_role_arn          =
"arn:aws:iam::810716384126:role/app-udacity-eks-node-role"
    + release_version        = (known after apply)
    + resources              = (known after apply)
    + status                 = (known after apply)
    + subnet_ids             = [
        + "subnet-07e48fcbaa301e007",
        + "subnet-0ed8114a8eb572da0",
      ]
    + tags                   = {
        + "Name" = "eks-udacity-nodes"
      }
    + tags_all               = {
        + "Name"      = "eks-udacity-nodes"
        + "Terraform" = "true"
      }
    + version                = (known after apply)
    + scaling_config {
        + desired_size = 2
        + max_size     = 2
        + min_size     = 2
      }
  }
 #
module.project_eks.aws_iam_role_policy_attachment.cluster_A
mazonEKSCloudwatchPolicy will be created
 + resource "aws_iam_role_policy_attachment"
"cluster_AmazonEKSCloudwatchPolicy" {
    + id         = (known after apply)
    + policy_arn =
"arn:aws:iam::810716384126:policy/app-udacity-eks-cluster-role-cl
```

```
oudwatch-policy"
      + role       = "app-udacity-eks-node-role"
    }
  #
module.project_eks.aws_iam_role_policy_attachment.cluster_A
mazonEKSClusterPolicy will be created
  + resource "aws_iam_role_policy_attachment"
"cluster_AmazonEKSClusterPolicy" {
      + id         = (known after apply)
      + policy_arn =
"arn:aws:iam::aws:policy/AmazonEKSClusterPolicy"
      + role       = "app-udacity-eks-cluster-role"
    }
  #
module.project_eks.aws_iam_role_policy_attachment.cluster_A
mazonEKSServicePolicy will be created
  + resource "aws_iam_role_policy_attachment"
"cluster_AmazonEKSServicePolicy" {
      + id         = (known after apply)
      + policy_arn =
"arn:aws:iam::aws:policy/AmazonEKSServicePolicy"
      + role       = "app-udacity-eks-cluster-role"
    }
  #
module.project_eks.aws_iam_role_policy_attachment.node_Am
azonEC2ContainerRegistryReadOnly will be created
  + resource "aws_iam_role_policy_attachment"
"node_AmazonEC2ContainerRegistryReadOnly" {
      + id         = (known after apply)
      + policy_arn =
"arn:aws:iam::aws:policy/AmazonEC2ContainerRegistryReadOnly
"
```

```
    + role       = "app-udacity-eks-node-role"
    }
  #
module.project_eks.aws_iam_role_policy_attachment.node_AmazonEKSWorkerNodePolicy will be created
  + resource "aws_iam_role_policy_attachment"
"node_AmazonEKSWorkerNodePolicy" {
    + id         = (known after apply)
    + policy_arn =
"arn:aws:iam::aws:policy/AmazonEKSWorkerNodePolicy"
    + role       = "app-udacity-eks-node-role"
    }
  #
module.project_eks.aws_iam_role_policy_attachment.node_AmazonEKS_CNI_Policy will be created
  + resource "aws_iam_role_policy_attachment"
"node_AmazonEKS_CNI_Policy" {
    + id         = (known after apply)
    + policy_arn =
"arn:aws:iam::aws:policy/AmazonEKS_CNI_Policy"
    + role       = "app-udacity-eks-node-role"
    }
  #
module.project_eks.aws_iam_role_policy_attachment.node_CloudWatchAgentServerPolicy will be created
  + resource "aws_iam_role_policy_attachment"
"node_CloudWatchAgentServerPolicy" {
    + id         = (known after apply)
    + policy_arn =
"arn:aws:iam::aws:policy/CloudWatchAgentServerPolicy"
    + role       = "app-udacity-eks-node-role"
    }
```

```
 #
module.project_eks.aws_iam_role_policy_attachment.node_harmony_policy_attachment will be created
 + resource "aws_iam_role_policy_attachment"
"node_harmony_policy_attachment" {
     + id         = (known after apply)
     + policy_arn =
"arn:aws:iam::810716384126:policy/app-udacity-instance-policy"
     + role       = "app-udacity-eks-node-role"
   }
 # module.project_eks.aws_security_group.eks-cluster will be
created
 + resource "aws_security_group" "eks-cluster" {
     + arn                    = (known after apply)
     + description            = "Managed by Terraform"
     + egress                 = [
         + {
             + cidr_blocks      = [
                 + "0.0.0.0/0",
               ]
             + description      = ""
             + from_port        = 0
             + ipv6_cidr_blocks = []
             + prefix_list_ids  = []
             + protocol         = "-1"
             + security_groups  = []
             + self             = false
             + to_port          = 0
           },
       ]
     + id                     = (known after apply)
     + ingress                = [
```

```
      + {
          + cidr_blocks      = [
              + "0.0.0.0/0",
            ]
          + description      = ""
          + from_port        = 0
          + ipv6_cidr_blocks = []
          + prefix_list_ids  = []
          + protocol         = "-1"
          + security_groups  = []
          + self             = false
          + to_port          = 0
        },
    ]
  + name                   = "SG-eks-cluster"
  + name_prefix            = (known after apply)
  + owner_id               = (known after apply)
  + revoke_rules_on_delete = false
  + tags_all               = {
      + "Name"      = "udacity"
      + "Terraform" = "true"
    }
  + vpc_id                 = "vpc-099aea294f35d1a58"
}
# module.vpc.aws_eip.nat[0] will be created
+ resource "aws_eip" "nat" {
  + allocation_id        = (known after apply)
  + association_id       = (known after apply)
  + carrier_ip           = (known after apply)
  + customer_owned_ip    = (known after apply)
  + domain               = (known after apply)
  + id                   = (known after apply)
```

```
    + instance             = (known after apply)
    + network_border_group = (known after apply)
    + network_interface    = (known after apply)
    + private_dns          = (known after apply)
    + private_ip           = (known after apply)
    + public_dns           = (known after apply)
    + public_ip            = (known after apply)
    + public_ipv4_pool     = (known after apply)
    + tags                 = {
        + "Name" = "udacity-project-us-west-1b"
      }
    + tags_all             = {
        + "Name"      = "udacity-project-us-west-1b"
        + "Terraform" = "true"
      }
    + vpc                  = true
  }
# module.vpc.aws_internet_gateway.this[0] will be created
+ resource "aws_internet_gateway" "this" {
    + arn      = (known after apply)
    + id       = (known after apply)
    + owner_id = (known after apply)
    + tags     = {
        + "Name" = "udacity-project"
      }
    + tags_all = {
        + "Name"      = "udacity-project"
        + "Terraform" = "true"
      }
    + vpc_id   = (known after apply)
  }
# module.vpc.aws_nat_gateway.this[0] will be created
```

```
+ resource "aws_nat_gateway" "this" {
    + allocation_id                      = (known after apply)
    + association_id                     = (known after apply)
    + connectivity_type                  = "public"
    + id                                 = (known after apply)
    + network_interface_id               = (known after apply)
    + private_ip                         = (known after apply)
    + public_ip                          = (known after apply)
    + secondary_private_ip_address_count = (known after apply)
    + secondary_private_ip_addresses     = (known after apply)
    + subnet_id                          = (known after apply)
    + tags                               = {
        + "Name" = "udacity-project-us-west-1b"
      }
    + tags_all                           = {
        + "Name"      = "udacity-project-us-west-1b"
        + "Terraform" = "true"
      }
  }
# module.vpc.aws_route.private_nat_gateway[0] will be created
+ resource "aws_route" "private_nat_gateway" {
    + destination_cidr_block = "0.0.0.0/0"
    + id                     = (known after apply)
    + instance_id            = (known after apply)
    + instance_owner_id      = (known after apply)
    + nat_gateway_id         = (known after apply)
    + network_interface_id   = (known after apply)
    + origin                 = (known after apply)
    + route_table_id         = (known after apply)
    + state                  = (known after apply)
    + timeouts {
        + create = "5m"
```

```
      }
    }
  # module.vpc.aws_route.private_nat_gateway[1] will be created
  + resource "aws_route" "private_nat_gateway" {
      + destination_cidr_block = "0.0.0.0/0"
      + id                     = (known after apply)
      + instance_id            = (known after apply)
      + instance_owner_id      = (known after apply)
      + nat_gateway_id         = (known after apply)
      + network_interface_id   = (known after apply)
      + origin                 = (known after apply)
      + route_table_id         = (known after apply)
      + state                  = (known after apply)
      + timeouts {
          + create = "5m"
        }
    }
  # module.vpc.aws_route.public_internet_gateway[0] will be
created
  + resource "aws_route" "public_internet_gateway" {
      + destination_cidr_block = "0.0.0.0/0"
      + gateway_id             = (known after apply)
      + id                     = (known after apply)
      + instance_id            = (known after apply)
      + instance_owner_id      = (known after apply)
      + network_interface_id   = (known after apply)
      + origin                 = (known after apply)
      + route_table_id         = (known after apply)
      + state                  = (known after apply)
      + timeouts {
          + create = "5m"
        }
```

```
  }
 # module.vpc.aws_route.public_internet_gateway[1] will be
created
 + resource "aws_route" "public_internet_gateway" {
    + destination_cidr_block = "0.0.0.0/0"
    + gateway_id             = (known after apply)
    + id                     = (known after apply)
    + instance_id            = (known after apply)
    + instance_owner_id      = (known after apply)
    + network_interface_id   = (known after apply)
    + origin                 = (known after apply)
    + route_table_id         = (known after apply)
    + state                  = (known after apply)
    + timeouts {
        + create = "5m"
      }
  }
 # module.vpc.aws_route_table.private[0] will be created
 + resource "aws_route_table" "private" {
    + arn              = (known after apply)
    + id               = (known after apply)
    + owner_id         = (known after apply)
    + propagating_vgws = (known after apply)
    + route            = (known after apply)
    + tags             = {
        + "Name" = "udacity-project-private-us-west-1b"
      }
    + tags_all         = {
        + "Name"      = "udacity-project-private-us-west-1b"
        + "Terraform" = "true"
      }
    + vpc_id           = (known after apply)
```

```
  }
# module.vpc.aws_route_table.private[1] will be created
+ resource "aws_route_table" "private" {
    + arn              = (known after apply)
    + id               = (known after apply)
    + owner_id         = (known after apply)
    + propagating_vgws = (known after apply)
    + route            = (known after apply)
    + tags             = {
        + "Name" = "udacity-project-private-us-west-1c"
      }
    + tags_all         = {
        + "Name"      = "udacity-project-private-us-west-1c"
        + "Terraform" = "true"
      }
    + vpc_id           = (known after apply)
  }
# module.vpc.aws_route_table.public[0] will be created
+ resource "aws_route_table" "public" {
    + arn              = (known after apply)
    + id               = (known after apply)
    + owner_id         = (known after apply)
    + propagating_vgws = (known after apply)
    + route            = (known after apply)
    + tags             = {
        + "Name" = "udacity-project-public"
      }
    + tags_all         = {
        + "Name"      = "udacity-project-public"
        + "Terraform" = "true"
      }
    + vpc_id           = (known after apply)
```

```
  }
 # module.vpc.aws_route_table_association.private[0] will be
created
 + resource "aws_route_table_association" "private" {
     + id             = (known after apply)
     + route_table_id = (known after apply)
     + subnet_id      = (known after apply)
   }
 # module.vpc.aws_route_table_association.private[1] will be
created
 + resource "aws_route_table_association" "private" {
     + id             = (known after apply)
     + route_table_id = (known after apply)
     + subnet_id      = (known after apply)
   }
 # module.vpc.aws_route_table_association.public[0] will be
created
 + resource "aws_route_table_association" "public" {
     + id             = (known after apply)
     + route_table_id = (known after apply)
     + subnet_id      = (known after apply)
   }
 # module.vpc.aws_route_table_association.public[1] will be
created
 + resource "aws_route_table_association" "public" {
     + id             = (known after apply)
     + route_table_id = (known after apply)
     + subnet_id      = (known after apply)
   }
 # module.vpc.aws_subnet.private[0] will be created
 + resource "aws_subnet" "private" {
     + arn                                            = (known after apply)
```

```
    + assign_ipv6_address_on_creation              = false
    + availability_zone                            = "us-west-1b"
    + availability_zone_id                         = (known after apply)
    + cidr_block                                   = "10.100.1.0/24"
    + enable_dns64                                 = false
    + enable_resource_name_dns_a_record_on_launch    = false
    + enable_resource_name_dns_aaaa_record_on_launch = false
    + id                                           = (known after apply)
    + ipv6_cidr_block_association_id               = (known after
apply)
    + ipv6_native                                  = false
    + map_public_ip_on_launch                      = false
    + owner_id                                     = (known after apply)
    + private_dns_hostname_type_on_launch          = (known after
apply)
    + tags                                         = {
        + "Name"                                   =
"udacity-project-private-us-west-1b"
        + "kubernetes.io/role/internal-elb" = "1"
      }
    + tags_all                                     = {
        + "Name"                                   =
"udacity-project-private-us-west-1b"
        + "Terraform"                              = "true"
        + "kubernetes.io/role/internal-elb" = "1"
      }
    + vpc_id                                       = (known after apply)
  }
 # module.vpc.aws_subnet.private[1] will be created
 + resource "aws_subnet" "private" {
    + arn                                          = (known after apply)
    + assign_ipv6_address_on_creation              = false
```

```
    + availability_zone                       = "us-west-1c"
    + availability_zone_id                    = (known after apply)
    + cidr_block                              = "10.100.2.0/24"
    + enable_dns64                            = false
    + enable_resource_name_dns_a_record_on_launch    = false
    + enable_resource_name_dns_aaaa_record_on_launch = false
    + id                                      = (known after apply)
    + ipv6_cidr_block_association_id          = (known after
apply)
    + ipv6_native                             = false
    + map_public_ip_on_launch                 = false
    + owner_id                                = (known after apply)
    + private_dns_hostname_type_on_launch     = (known after
apply)
    + tags                                    = {
        + "Name"                              =
"udacity-project-private-us-west-1c"
        + "kubernetes.io/role/internal-elb" = "1"
      }
    + tags_all                                = {
        + "Name"                              =
"udacity-project-private-us-west-1c"
        + "Terraform"                         = "true"
        + "kubernetes.io/role/internal-elb" = "1"
      }
    + vpc_id                                  = (known after apply)
  }
 # module.vpc.aws_subnet.public[0] will be created
 + resource "aws_subnet" "public" {
    + arn                                     = (known after apply)
    + assign_ipv6_address_on_creation         = false
    + availability_zone                       = "us-west-1b"
```

```
    + availability_zone_id                       = (known after apply)
    + cidr_block                                 = "10.100.10.0/24"
    + enable_dns64                               = false
    + enable_resource_name_dns_a_record_on_launch    = false
    + enable_resource_name_dns_aaaa_record_on_launch = false
    + id                                         = (known after apply)
    + ipv6_cidr_block_association_id             = (known after
apply)
    + ipv6_native                                = false
    + map_public_ip_on_launch                    = true
    + owner_id                                   = (known after apply)
    + private_dns_hostname_type_on_launch        = (known after
apply)
    + tags                                       = {
        + "Name"                  = "udacity-project-public-us-west-1b"
        + "kubernetes.io/role/elb" = "1"
      }
    + tags_all                                   = {
        + "Name"                  = "udacity-project-public-us-west-1b"
        + "Terraform"              = "true"
        + "kubernetes.io/role/elb" = "1"
      }
    + vpc_id                                     = (known after apply)
  }
 # module.vpc.aws_subnet.public[1] will be created
 + resource "aws_subnet" "public" {
    + arn                                        = (known after apply)
    + assign_ipv6_address_on_creation            = false
    + availability_zone                          = "us-west-1c"
    + availability_zone_id                       = (known after apply)
    + cidr_block                                 = "10.100.11.0/24"
    + enable_dns64                               = false
```

```
    + enable_resource_name_dns_a_record_on_launch    = false
    + enable_resource_name_dns_aaaa_record_on_launch = false
    + id                                             = (known after apply)
    + ipv6_cidr_block_association_id                 = (known after
apply)
    + ipv6_native                                    = false
    + map_public_ip_on_launch                        = true
    + owner_id                                       = (known after apply)
    + private_dns_hostname_type_on_launch            = (known after
apply)
    + tags                                           = {
        + "Name"                    = "udacity-project-public-us-west-1c"
        + "kubernetes.io/role/elb" = "1"
      }
    + tags_all                                       = {
        + "Name"                    = "udacity-project-public-us-west-1c"
        + "Terraform"               = "true"
        + "kubernetes.io/role/elb" = "1"
      }
    + vpc_id                                         = (known after apply)
  }
 # module.vpc.aws_vpc.this will be created
 + resource "aws_vpc" "this" {
    + arn                                = (known after apply)
    + cidr_block                         = "10.100.0.0/16"
    + default_network_acl_id             = (known after apply)
    + default_route_table_id             = (known after apply)
    + default_security_group_id          = (known after apply)
    + dhcp_options_id                    = (known after apply)
    + enable_dns_hostnames               = true
    + enable_dns_support                 = true
    + enable_network_address_usage_metrics = (known after
```

```
apply)
    + id                                   = (known after apply)
    + instance_tenancy                     = "default"
    + ipv6_association_id                  = (known after apply)
    + ipv6_cidr_block                      = (known after apply)
    + ipv6_cidr_block_network_border_group = (known after
apply)
    + main_route_table_id                  = (known after apply)
    + owner_id                             = (known after apply)
    + tags                                 = {
        + "Name" = "udacity-project"
      }
    + tags_all                             = {
        + "Name"      = "udacity-project"
        + "Terraform" = "true"
      }
  }
Plan: 36 to add, 0 to change, 0 to destroy.
Changes to Outputs:
 + account_id  = "810716384126"
 + caller_arn  = "arn:aws:iam::810716384126:user/udacity"
 + caller_user = "AIDA3ZQTWJN7BIQ2VQ5H5"
╷
│ Warning: Argument is deprecated
│
│   with module.vpc.aws_eip.nat,
│   on modules/vpc/routes.tf line 54, in resource "aws_eip" "nat":
│   54:    vpc = true
│
│ use domain attribute instead
│
│ (and one more similar warning elsewhere)
```

```
|
Do you want to perform these actions?
  Terraform will perform the actions described above.
  Only 'yes' will be accepted to approve.
  Enter a value: yes
module.project_eks.aws_iam_role_policy_attachment.node_AmazonEKS_CNI_Policy: Creating...
module.project_eks.aws_iam_role_policy_attachment.node_AmazonEC2ContainerRegistryReadOnly: Creating...
module.project_eks.aws_iam_role_policy_attachment.cluster_AmazonEKSClusterPolicy: Creating...
module.project_eks.aws_iam_role_policy_attachment.node_AmazonEKSWorkerNodePolicy: Creating...
module.project_eks.aws_iam_role_policy_attachment.cluster_AmazonEKSServicePolicy: Creating...
module.project_eks.aws_security_group.eks-cluster: Creating...
module.project_eks.aws_iam_role_policy_attachment.node_CloudWatchAgentServerPolicy: Creating...
module.vpc.aws_vpc.this: Creating...
module.vpc.aws_eip.nat[0]: Creating...
module.project_ec2.aws_security_group.ec2_sg: Creating...
module.project_eks.aws_iam_role_policy_attachment.cluster_AmazonEKSClusterPolicy: Creation complete after 1s
[id=app-udacity-eks-cluster-role-20231219073842021500000001
]
module.project_eks.aws_iam_role_policy_attachment.cluster_AmazonEKSCloudwatchPolicy: Creating...
module.project_eks.aws_iam_role_policy_attachment.cluster_AmazonEKSServicePolicy: Creation complete after 1s
[id=app-udacity-eks-cluster-role-20231219073842029600000002
]
module.project_eks.aws_iam_role_policy_attachment.node_har
```

mony_policy_attachment: Creating...
module.project_eks.aws_iam_role_policy_attachment.node_AmazonEKSWorkerNodePolicy: Creation complete after 1s [id=app-udacity-eks-node-role-20231219073842043300000003]
module.project_eks.aws_iam_role_policy_attachment.node_CloudWatchAgentServerPolicy: Creation complete after 1s [id=app-udacity-eks-node-role-20231219073842045400000004]
module.project_eks.aws_iam_role_policy_attachment.node_AmazonEC2ContainerRegistryReadOnly: Creation complete after 1s [id=app-udacity-eks-node-role-20231219073842068100000005]
module.project_eks.aws_iam_role_policy_attachment.node_AmazonEKS_CNI_Policy: Creation complete after 1s [id=app-udacity-eks-node-role-20231219073842085600000006]
module.vpc.aws_eip.nat[0]: Creation complete after 2s [id=eipalloc-065110409247 43fbe]
module.project_eks.aws_iam_role_policy_attachment.cluster_AmazonEKSCloudwatchPolicy: Creation complete after 1s [id=app-udacity-eks-node-role-20231219073842523600000007]
module.project_eks.aws_iam_role_policy_attachment.node_harmony_policy_attachment: Creation complete after 1s [id=app-udacity-eks-node-role-20231219073842531200000008]
module.project_ec2.aws_security_group.ec2_sg: Creation complete after 4s [id=sg-0eca01dea042e2468]
module.project_ec2.aws_instance.ubuntu[1]: Creating...
module.project_ec2.aws_instance.ubuntu[0]: Creating...
module.project_ec2.aws_instance.ubuntu[2]: Creating...
module.project_eks.aws_security_group.eks-cluster: Creation complete after 5s [id=sg-05f13cca17cbc7a20]
module.project_eks.aws_eks_cluster.cluster: Creating...
module.vpc.aws_vpc.this: Still creating... [10s elapsed]
module.project_ec2.aws_instance.ubuntu[1]: Still creating...

[10s elapsed]
module.project_ec2.aws_instance.ubuntu[0]: Still creating...
[10s elapsed]
module.project_ec2.aws_instance.ubuntu[2]: Still creating...
[10s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating... [10s elapsed]
module.vpc.aws_vpc.this: Creation complete after 15s [id=vpc-0ec5853c17de56088]
module.vpc.aws_internet_gateway.this[0]: Creating...
module.vpc.aws_subnet.public[1]: Creating...
module.vpc.aws_route_table.private[0]: Creating...
module.vpc.aws_subnet.private[0]: Creating...
module.vpc.aws_route_table.private[1]: Creating...
module.vpc.aws_subnet.public[0]: Creating...
module.vpc.aws_subnet.private[0]: Creation complete after 1s [id=subnet-0434ce7542794d780]
module.vpc.aws_subnet.private[1]: Creating...
module.vpc.aws_internet_gateway.this[0]: Creation complete after 1s [id=igw-01b093b9e0a8bd38a]
module.vpc.aws_route_table.public[0]: Creating...
module.vpc.aws_route_table.private[0]: Creation complete after 1s [id=rtb-0788542a689a54d3e]
module.vpc.aws_route_table.private[1]: Creation complete after 2s [id=rtb-098ad0f9349ce4f9f]
module.vpc.aws_subnet.private[1]: Creation complete after 1s [id=subnet-0432e4a9f737b7900]
module.vpc.aws_route_table_association.private[1]: Creating...
module.vpc.aws_route_table_association.private[0]: Creating...
module.vpc.aws_route_table.public[0]: Creation complete after 1s [id=rtb-0011a9f7ee22538bc]
module.vpc.aws_route.public_internet_gateway[1]: Creating...

module.vpc.aws_route.public_internet_gateway[0]: Creating...
module.vpc.aws_route_table_association.private[0]: Creation complete after 1s [id=rtbassoc-0876b66ef98923b59]
module.vpc.aws_route_table_association.private[1]: Creation complete after 1s [id=rtbassoc-0c3f2eba5a7d71396]
module.vpc.aws_route.public_internet_gateway[1]: Creation complete after 2s [id=r-rtb-0011a9f7ee22538bc1080289494]
module.vpc.aws_route.public_internet_gateway[0]: Creation complete after 2s [id=r-rtb-0011a9f7ee22538bc1080289494]
module.project_ec2.aws_instance.ubuntu[1]: Creation complete after 15s [id=i-0738e2af3e3156ccc]
module.project_ec2.aws_instance.ubuntu[2]: Creation complete after 15s [id=i-0fd5cc3748371dc16]
module.project_ec2.aws_instance.ubuntu[0]: Creation complete after 15s [id=i-0b423ae1512bbae45]
module.project_eks.aws_eks_cluster.cluster: Still creating... [20s elapsed]
module.vpc.aws_subnet.public[0]: Still creating... [10s elapsed]
module.vpc.aws_subnet.public[1]: Still creating... [10s elapsed]
module.vpc.aws_subnet.public[0]: Creation complete after 12s [id=subnet-0f65dddbe77d9f07f]
module.vpc.aws_subnet.public[1]: Creation complete after 16s [id=subnet-030f64a225c0c2062]
module.vpc.aws_route_table_association.public[0]: Creating...
module.vpc.aws_route_table_association.public[1]: Creating...
module.vpc.aws_nat_gateway.this[0]: Creating...
module.vpc.aws_route_table_association.public[1]: Creation complete after 1s [id=rtbassoc-09f3a3a6ba816ae65]
module.vpc.aws_route_table_association.public[0]: Creation complete after 1s [id=rtbassoc-0be7b7508ab379df2]
module.project_eks.aws_eks_cluster.cluster: Still creating... [30s elapsed]

```
module.vpc.aws_nat_gateway.this[0]: Still creating... [10s
elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating... [40s
elapsed]
module.vpc.aws_nat_gateway.this[0]: Still creating... [20s
elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating... [50s
elapsed]
module.vpc.aws_nat_gateway.this[0]: Still creating... [30s
elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[1m0s elapsed]
module.vpc.aws_nat_gateway.this[0]: Still creating... [40s
elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[1m10s elapsed]
module.vpc.aws_nat_gateway.this[0]: Still creating... [50s
elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[1m20s elapsed]
module.vpc.aws_nat_gateway.this[0]: Still creating... [1m0s
elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[1m30s elapsed]
module.vpc.aws_nat_gateway.this[0]: Still creating... [1m10s
elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[1m40s elapsed]
module.vpc.aws_nat_gateway.this[0]: Still creating... [1m20s
elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[1m50s elapsed]
```

module.vpc.aws_nat_gateway.this[0]: Still creating... [1m30s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating... [2m0s elapsed]
module.vpc.aws_nat_gateway.this[0]: Still creating... [1m40s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating... [2m10s elapsed]
module.vpc.aws_nat_gateway.this[0]: Still creating... [1m50s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating... [2m20s elapsed]
module.vpc.aws_nat_gateway.this[0]: Still creating... [2m0s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating... [2m30s elapsed]
module.vpc.aws_nat_gateway.this[0]: Creation complete after 2m9s [id=nat-0162f6fddac01c496]
module.vpc.aws_route.private_nat_gateway[1]: Creating...
module.vpc.aws_route.private_nat_gateway[0]: Creating...
module.project_eks.aws_eks_cluster.cluster: Still creating... [2m40s elapsed]
module.vpc.aws_route.private_nat_gateway[1]: Creation complete after 2s [id=r-rtb-098ad0f9349ce4f9f1080289494]
module.vpc.aws_route.private_nat_gateway[0]: Creation complete after 2s [id=r-rtb-0788542a689a54d3e1080289494]
module.project_eks.aws_eks_cluster.cluster: Still creating... [2m50s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating... [3m0s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating... [3m10s elapsed]

```
module.project_eks.aws_eks_cluster.cluster: Still creating...
[3m20s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[3m30s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[3m40s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[3m50s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[4m0s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[4m10s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[4m20s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[4m30s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[4m40s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[4m50s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[5m0s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[5m10s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[5m20s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[5m30s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[5m40s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating...
[5m50s elapsed]
```

```
module.project_eks.aws_eks_cluster.cluster: Still creating... [6m0s elapsed]
module.project_eks.aws_eks_cluster.cluster: Still creating... [6m10s elapsed]
module.project_eks.aws_eks_cluster.cluster: Creation complete after 6m13s [id=udacity-cluster]
data.aws_eks_cluster_auth.cluster: Reading...
data.aws_eks_cluster.cluster: Reading...
data.aws_eks_cluster_auth.cluster: Read complete after 0s [id=udacity-cluster]
module.project_eks.aws_eks_node_group.node: Creating...
data.aws_eks_cluster.cluster: Read complete after 1s [id=udacity-cluster]
module.project_eks.aws_eks_node_group.node: Still creating... [10s elapsed]
module.project_eks.aws_eks_node_group.node: Still creating... [20s elapsed]
module.project_eks.aws_eks_node_group.node: Still creating... [30s elapsed]
module.project_eks.aws_eks_node_group.node: Still creating... [40s elapsed]
module.project_eks.aws_eks_node_group.node: Still creating... [50s elapsed]
module.project_eks.aws_eks_node_group.node: Still creating... [1m0s elapsed]
module.project_eks.aws_eks_node_group.node: Still creating... [1m10s elapsed]
module.project_eks.aws_eks_node_group.node: Still creating... [1m20s elapsed]
module.project_eks.aws_eks_node_group.node: Creation complete after 1m22s [id=udacity-cluster:app-udacity-node-group]
```

```
kubernetes_service.grafana-external: Creating...
kubernetes_namespace.udacity: Creating...
kubernetes_namespace.udacity: Creation complete after 3s
[id=udacity]

╷
│ Warning: Argument is deprecated
│
│   with module.vpc.aws_eip.nat[0],
│   on modules/vpc/routes.tf line 54, in resource "aws_eip" "nat":
│   54:     vpc = true
│
│ use domain attribute instead
╵

╷
│ Error: namespaces "monitoring" not found
│
│   with kubernetes_service.grafana-external,
│   on project.tf line 10, in resource "kubernetes_service"
"grafana-external":
│   10:   resource "kubernetes_service" "grafana-external" {
│
╵

jees-macbook:zone2 jeesantony$ aws eks --region us-west-1
update-kubeconfig --name udacity-cluster
Updated context
arn:aws:eks:us-west-1:810716384126:cluster/udacity-cluster in
/Users/jeesantony/.kube/config
jees-macbook:zone2 jeesantony$ kubectl config use-context
arn:aws:eks:us-west-1:810716384126:cluster/udacity-cluster
Switched to context
"arn:aws:eks:us-west-1:810716384126:cluster/udacity-cluster".
jees-macbook:zone2 jeesantony$ kubectl create namespace
```

monitoring
namespace/monitoring created
jees-macbook:zone2 jeesantony$ terraform apply
data.terraform_remote_state.vpc: Reading...
data.aws_iam_role.eks_node_role: Reading...
data.aws_iam_policy.instance-policy: Reading...
data.aws_iam_policy.cloudwatch-policy: Reading...
module.project_eks.data.aws_iam_policy_document.eks_assume_role_policy: Reading...
data.aws_iam_role.eks_cluster_role: Reading...
module.project_eks.aws_iam_role_policy_attachment.cluster_AmazonEKSServicePolicy: Refreshing state... [id=app-udacity-eks-cluster-role-20231219073842029600000002]
module.project_eks.aws_iam_role_policy_attachment.node_AmazonEKS_CNI_Policy: Refreshing state... [id=app-udacity-eks-node-role-20231219073842085600000006]
module.project_eks.aws_iam_role_policy_attachment.node_CloudWatchAgentServerPolicy: Refreshing state... [id=app-udacity-eks-node-role-20231219073842045400000004]
module.project_eks.aws_iam_role_policy_attachment.node_AmazonEC2ContainerRegistryReadOnly: Refreshing state... [id=app-udacity-eks-node-role-20231219073842068100000005]
module.project_eks.data.aws_iam_policy_document.eks_assume_role_policy: Read complete after 0s [id=3552664922]
data.aws_caller_identity.current: Reading...
data.aws_caller_identity.current: Read complete after 0s [id=810716384126]
module.vpc.aws_vpc.this: Refreshing state... [id=vpc-0ec5853c17de56088]
data.aws_iam_role.eks_cluster_role: Read complete after 1s [id=app-udacity-eks-cluster-role]

module.project_eks.data.aws_iam_policy_document.eks_node_assume_role_policy: Reading...
data.aws_iam_role.eks_node_role: Read complete after 1s [id=app-udacity-eks-node-role]
module.project_eks.data.aws_iam_policy_document.eks_node_assume_role_policy: Read complete after 0s [id=2851119427]
module.vpc.aws_eip.nat[0]: Refreshing state... [id=eipalloc-06511040924743fbe]
data.aws_ami.amazon_linux_2: Reading...
module.project_eks.aws_iam_role_policy_attachment.cluster_AmazonEKSClusterPolicy: Refreshing state... [id=app-udacity-eks-cluster-role-20231219073842021500000001]
module.project_eks.aws_iam_role_policy_attachment.node_AmazonEKSWorkerNodePolicy: Refreshing state... [id=app-udacity-eks-node-role-20231219073842043300000003]
data.terraform_remote_state.vpc: Read complete after 4s
module.project_eks.aws_security_group.eks-cluster: Refreshing state... [id=sg-05f13cca17cbc7a20]
module.project_ec2.aws_security_group.ec2_sg: Refreshing state... [id=sg-0eca01dea042e2468]
data.aws_ami.amazon_linux_2: Read complete after 1s [id=ami-0967795d5c824c5da]
module.project_eks.aws_eks_cluster.cluster: Refreshing state... [id=udacity-cluster]
module.project_ec2.aws_instance.ubuntu[1]: Refreshing state... [id=i-0738e2af3e3156ccc]
module.project_ec2.aws_instance.ubuntu[2]: Refreshing state... [id=i-0fd5cc3748371dc16]
module.project_ec2.aws_instance.ubuntu[0]: Refreshing state... [id=i-0b423ae1512bbae45]
data.aws_eks_cluster_auth.cluster: Reading...

```
data.aws_eks_cluster.cluster: Reading...
data.aws_eks_cluster_auth.cluster: Read complete after 0s
[id=udacity-cluster]
data.aws_eks_cluster.cluster: Read complete after 0s
[id=udacity-cluster]
module.vpc.aws_subnet.private[0]: Refreshing state...
[id=subnet-0434ce7542794d780]
module.vpc.aws_subnet.private[1]: Refreshing state...
[id=subnet-0432e4a9f737b7900]
module.vpc.aws_subnet.public[0]: Refreshing state...
[id=subnet-0f65dddbe77d9f07f]
module.vpc.aws_subnet.public[1]: Refreshing state...
[id=subnet-030f64a225c0c2062]
module.vpc.aws_internet_gateway.this[0]: Refreshing state...
[id=igw-01b093b9e0a8bd38a]
module.vpc.aws_route_table.public[0]: Refreshing state...
[id=rtb-0011a9f7ee22538bc]
module.vpc.aws_route_table.private[0]: Refreshing state...
[id=rtb-0788542a689a54d3e]
module.vpc.aws_route_table.private[1]: Refreshing state...
[id=rtb-098ad0f9349ce4f9f]
module.vpc.aws_nat_gateway.this[0]: Refreshing state...
[id=nat-0162f6fddac01c496]
module.vpc.aws_route_table_association.public[0]: Refreshing
state... [id=rtbassoc-0be7b7508ab379df2]
module.vpc.aws_route_table_association.public[1]: Refreshing
state... [id=rtbassoc-09f3a3a6ba816ae65]
module.vpc.aws_route.public_internet_gateway[1]: Refreshing
state... [id=r-rtb-0011a9f7ee22538bc1080289494]
module.vpc.aws_route.public_internet_gateway[0]: Refreshing
state... [id=r-rtb-0011a9f7ee22538bc1080289494]
module.vpc.aws_route_table_association.private[0]: Refreshing
```

```
state... [id=rtbassoc-0876b66ef98923b59]
module.vpc.aws_route_table_association.private[1]: Refreshing
state... [id=rtbassoc-0c3f2eba5a7d71396]
module.vpc.aws_route.private_nat_gateway[1]: Refreshing
state... [id=r-rtb-098ad0f9349ce4f9f1080289494]
module.vpc.aws_route.private_nat_gateway[0]: Refreshing
state... [id=r-rtb-0788542a689a54d3e1080289494]
data.aws_iam_policy.cloudwatch-policy: Read complete after 9s
[id=arn:aws:iam::810716384126:policy/app-udacity-eks-cluster-
role-cloudwatch-policy]
module.project_eks.aws_iam_role_policy_attachment.cluster_A
mazonEKSCloudwatchPolicy: Refreshing state...
[id=app-udacity-eks-node-role-20231219073842523600000007]
data.aws_iam_policy.instance-policy: Still reading... [10s
elapsed]
data.aws_iam_policy.instance-policy: Read complete after 11s
[id=arn:aws:iam::810716384126:policy/app-udacity-instance-po
licy]
module.project_eks.aws_iam_role_policy_attachment.node_har
mony_policy_attachment: Refreshing state...
[id=app-udacity-eks-node-role-20231219073842531200000008]
module.project_eks.aws_eks_node_group.node: Refreshing
state... [id=udacity-cluster:app-udacity-node-group]
kubernetes_namespace.udacity: Refreshing state... [id=udacity]
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:
  # kubernetes_service.grafana-external will be created
  + resource "kubernetes_service" "grafana-external" {
      + id                   = (known after apply)
```

```
    + status                = (known after apply)
    + wait_for_load_balancer = true
    + metadata {
        + annotations      = {
            +
"service.beta.kubernetes.io/aws-load-balancer-nlb-target-type" =
"ip"
            + "service.beta.kubernetes.io/aws-load-balancer-type"
= "nlb"
          }
        + generation       = (known after apply)
        + name             = "grafana-external"
        + namespace        = "monitoring"
        + resource_version = (known after apply)
        + uid              = (known after apply)
      }
    + spec {
        + allocate_load_balancer_node_ports = true
        + cluster_ip                        = (known after apply)
        + cluster_ips                       = (known after apply)
        + external_traffic_policy           = (known after apply)
        + health_check_node_port            = (known after apply)
        + internal_traffic_policy           = (known after apply)
        + ip_families                       = (known after apply)
        + ip_family_policy                  = (known after apply)
        + publish_not_ready_addresses       = false
        + selector                          = {
            + "app.kubernetes.io/name" = "grafana"
          }
        + session_affinity                  = "None"
        + type                              = "LoadBalancer"
        + port {
```

```
            + node_port   = (known after apply)
            + port        = 80
            + protocol    = "TCP"
            + target_port = "3000"
          }
      }
  }
Plan: 1 to add, 0 to change, 0 to destroy.
╷
│ Warning: Argument is deprecated
│
│   with module.vpc.aws_eip.nat,
│   on modules/vpc/routes.tf line 54, in resource "aws_eip" "nat":
│   54:    vpc = true
│
│ use domain attribute instead
│
│ (and one more similar warning elsewhere)
╵

Do you want to perform these actions?
  Terraform will perform the actions described above.
  Only 'yes' will be accepted to approve.
  Enter a value: yes
kubernetes_service.grafana-external: Creating...
kubernetes_service.grafana-external: Still creating... [10s
elapsed]
kubernetes_service.grafana-external: Still creating... [20s
elapsed]
kubernetes_service.grafana-external: Still creating... [30s
elapsed]
kubernetes_service.grafana-external: Still creating... [40s
elapsed]
```

```
kubernetes_service.grafana-external: Still creating... [50s
elapsed]
kubernetes_service.grafana-external: Still creating... [1m0s
elapsed]
kubernetes_service.grafana-external: Still creating... [1m10s
elapsed]
kubernetes_service.grafana-external: Still creating... [1m20s
elapsed]
kubernetes_service.grafana-external: Still creating... [1m30s
elapsed]
kubernetes_service.grafana-external: Still creating... [1m40s
elapsed]
kubernetes_service.grafana-external: Still creating... [1m50s
elapsed]
kubernetes_service.grafana-external: Still creating... [2m0s
elapsed]
kubernetes_service.grafana-external: Still creating... [2m10s
elapsed]
kubernetes_service.grafana-external: Still creating... [2m20s
elapsed]
kubernetes_service.grafana-external: Still creating... [2m30s
elapsed]
kubernetes_service.grafana-external: Still creating... [2m40s
elapsed]
kubernetes_service.grafana-external: Still creating... [2m50s
elapsed]
kubernetes_service.grafana-external: Still creating... [3m0s
elapsed]
kubernetes_service.grafana-external: Still creating... [3m10s
elapsed]
kubernetes_service.grafana-external: Still creating... [3m20s
elapsed]
```

```
kubernetes_service.grafana-external: Still creating... [3m30s
elapsed]
kubernetes_service.grafana-external: Still creating... [3m41s
elapsed]
kubernetes_service.grafana-external: Still creating... [3m51s
elapsed]
kubernetes_service.grafana-external: Still creating... [4m1s
elapsed]
kubernetes_service.grafana-external: Still creating... [4m11s
elapsed]
kubernetes_service.grafana-external: Still creating... [4m21s
elapsed]
kubernetes_service.grafana-external: Still creating... [4m31s
elapsed]
kubernetes_service.grafana-external: Still creating... [4m41s
elapsed]
kubernetes_service.grafana-external: Still creating... [4m51s
elapsed]
kubernetes_service.grafana-external: Still creating... [5m1s
elapsed]
kubernetes_service.grafana-external: Still creating... [5m11s
elapsed]
kubernetes_service.grafana-external: Still creating... [5m21s
elapsed]
kubernetes_service.grafana-external: Still creating... [5m31s
elapsed]
kubernetes_service.grafana-external: Still creating... [5m41s
elapsed]
kubernetes_service.grafana-external: Still creating... [5m51s
elapsed]
kubernetes_service.grafana-external: Still creating... [6m1s
elapsed]
```

```
kubernetes_service.grafana-external: Still creating... [6m11s
elapsed]
kubernetes_service.grafana-external: Still creating... [6m21s
elapsed]
kubernetes_service.grafana-external: Still creating... [6m31s
elapsed]
kubernetes_service.grafana-external: Still creating... [6m41s
elapsed]
kubernetes_service.grafana-external: Still creating... [6m51s
elapsed]
kubernetes_service.grafana-external: Still creating... [7m1s
elapsed]
kubernetes_service.grafana-external: Still creating... [7m11s
elapsed]
kubernetes_service.grafana-external: Still creating... [7m21s
elapsed]
kubernetes_service.grafana-external: Still creating... [7m31s
elapsed]
kubernetes_service.grafana-external: Still creating... [7m41s
elapsed]
kubernetes_service.grafana-external: Still creating... [7m51s
elapsed]
kubernetes_service.grafana-external: Still creating... [8m1s
elapsed]
kubernetes_service.grafana-external: Still creating... [8m11s
elapsed]
kubernetes_service.grafana-external: Still creating... [8m21s
elapsed]
kubernetes_service.grafana-external: Still creating... [8m31s
elapsed]
kubernetes_service.grafana-external: Still creating... [8m41s
elapsed]
```

```
kubernetes_service.grafana-external: Still creating... [8m51s elapsed]
kubernetes_service.grafana-external: Still creating... [9m1s elapsed]
kubernetes_service.grafana-external: Creation complete after 9m10s [id=monitoring/grafana-external]
Apply complete! Resources: 1 added, 0 changed, 0 destroyed.
Outputs:
account_id = "810716384126"
caller_arn = "arn:aws:iam::810716384126:user/udacity"
caller_user = "AIDA3ZQTWJN7BIQ2VQ5H5"
jees-macbook:zone2 jeesantony$
```