

## Element function

Reference here <https://www.terraform.io/docs/language/functions/element.html>

```
vpc_id = element(
  concat(
    aws_vpc_ipv4_cidr_block_association.this.*.vpc_id,
    aws_vpc.this.*.id,
    [""]),
  0,
)
```

In this case vpc\_id gets the first element from an array of three elements.

## Merge function

Reference here <https://www.terraform.io/docs/language/functions/merge.html>

```
resource "aws_vpc" "this" {
  count = var.create_vpc ? 1 : 0

  cidr_block           = var.cidr
  instance_tenancy     = var.instance_tenancy
  enable_dns_hostnames = var.enable_dns_hostnames
  enable_dns_support   = var.enable_dns_support
  enable_classiclink   = var.enable_classiclink
  enable_classiclink_dns_support = var.enable_classiclink_dns_support
  assign_generated_ipv6_cidr_block = var.enable_ipv6

  tags = merge(
    {
      "Name" = format("%s", var.name)
    },
    var.tags,
    var.vpc_tags,
  )
}
```

Anton Babenko, 2 years ago • Finally, Terraform 0.12 support (#26)

In the aws\_vpc resource inside tags attribute it's used merge function, tags attribute gets just a list of object and it does to merge of those variables on var.tags

## Compact function

Reference here <https://www.terraform.io/docs/language/functions/compact.html>

```
resource "aws_default_security_group" "this" {
  count = var.create_vpc && var.manage_default_security_group ? 1 : 0

  vpc_id = aws_vpc.this[0].id
}

dynamic "ingress" {
  for_each = var.default_security_group_ingress
  content {
    self          = lookup(ingress.value, "self", null)
    cidr_blocks   = compact(split(",", lookup(ingress.value, "cidr_blocks", "")))
  }
}
```

compact is a simple function that does remove empty strings.