

Hands-on Infrastructure Automation with Terraform on AWS

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Creating reusable components with modules

Section 5

Extending modules with
conditionals and outputs

Conditionals

Conditional expressions make modules more flexible

Conditional syntax

CONDITION ? TRUEVAL : FALSEVAL

- Equality: == and !=
- Numerical comparison: >, <, >=, <=
- Boolean logic: &&, ||, unary !

Conditional count

```
resource "aws_instance" "web" {  
    count = "${var.env == "production" ? 1 : 0}"  
}
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    count = "${var.create_instance ? 1 : 0}"  
}
```

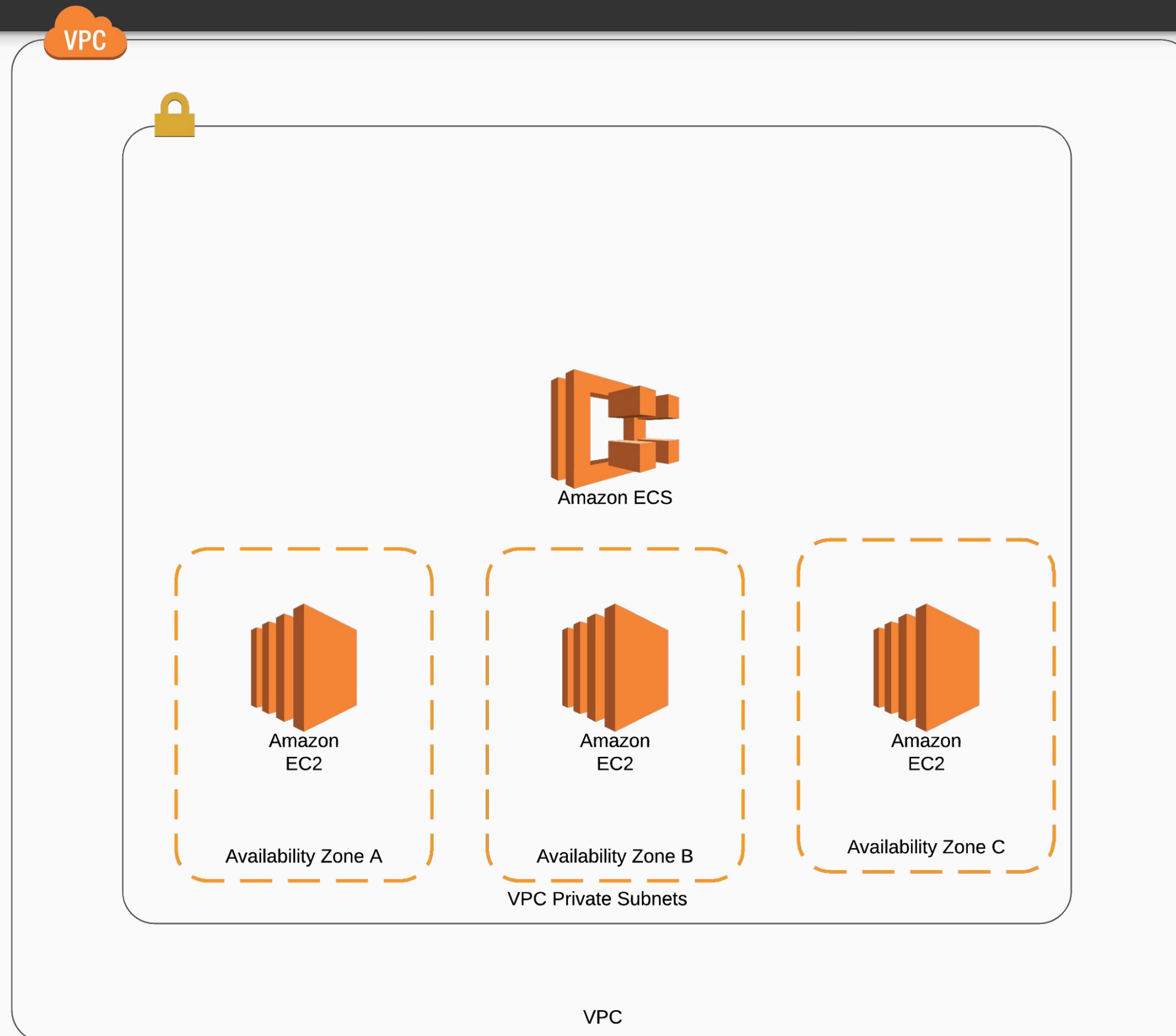
Conditional count

```
resource "aws_instance" "web" {  
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```
resource "aws_instance" "web" {  
    count = "${var.create_instance ? 1 : 0}"  
}
```

```
resource "aws_instance" "web" {  
    count = "${var.create_instance}"  
}
```


Extending the ECS cluster module



Referencing module outputs

`${module.NAME.OUTPUT}`

- **NAME** is the module name given in the header of the module configuration block
- **OUTPUT** is the name of the output to reference

Using module outputs

Create implicit dependencies between resources in different modules

Using count and
interpolations adds a lot of
complexity to modules

Modules do not support count
parameter

Inline blocks

```
resource "aws_security_group" "allow_all" {  
  <...>  
  ingress {  
    from_port    = 0  
    to_port      = 0  
    protocol     = "-1"  
    cidr_blocks = ["0.0.0.0/0"]  
  }  
}
```

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- Pass a list of maps (Terraform \leq 0.11)
- Use dynamic blocks (Terraform 0.12+)

Using external modules

Next video