

Implementing Terraform on Microsoft Azure

USING THE AZURE PROVIDERS



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Overview



Course prerequisites

Terraform / ARM templates

Scenario

Azure providers



Course Prerequisites



Terraform Basics



Azure Basics

Terraform for the Azure Admin

ARM Template

JSON

Parameters

Variables

Resources

Functions

Nested templates

Explicit dependency

Refer by reference or resourceId

Terraform

HCL

Variables

Local variables

Resources

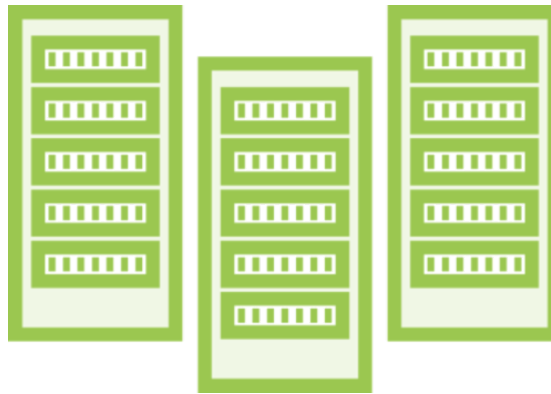
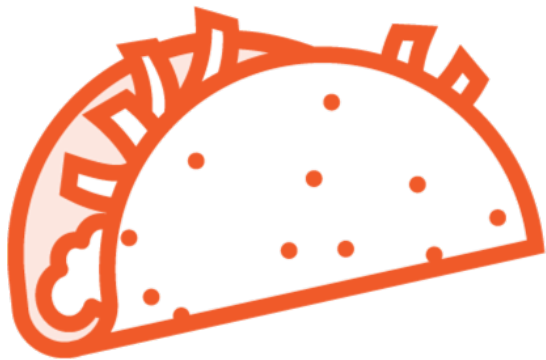
Functions

Modules

Automatic dependency

Refer by resource or data source







Chris Jones
Cloud Architect



Danny Brown
Security Administrator



Hector Sanchez
Software Engineer



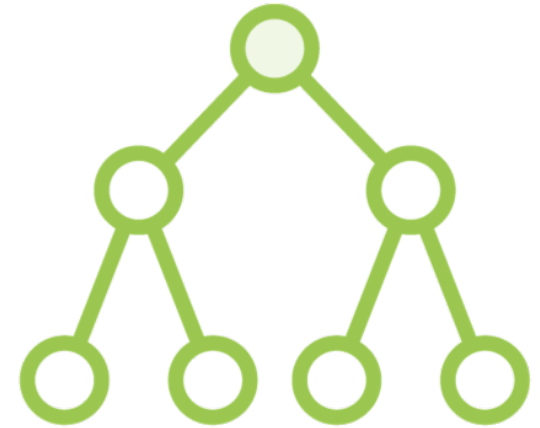
Azure Providers



Azure



Azure Stack



Azure Active Directory

Terraform Providers



Versioned

Data sources

Resources

Modules

Authentication

Authentication



Azure CLI



Managed Service Identity



Service principal with client secret



Service principal with client certificate



AzureRM Provider

```
provider "azurerm" {  
    version      = "~> 1.0"  
    alias        = "networking"  
    subscription_id = var.subscription_id  
    client_id     = var.client_id  
    client_secret  = var.client_secret  
}
```



Environment Variables

ARM_CLIENT_ID # Service principal ID

ARM_CLIENT_SECRET # Service principal secret

ARM_ENVIRONMENT # Azure environment: public, Gov., etc

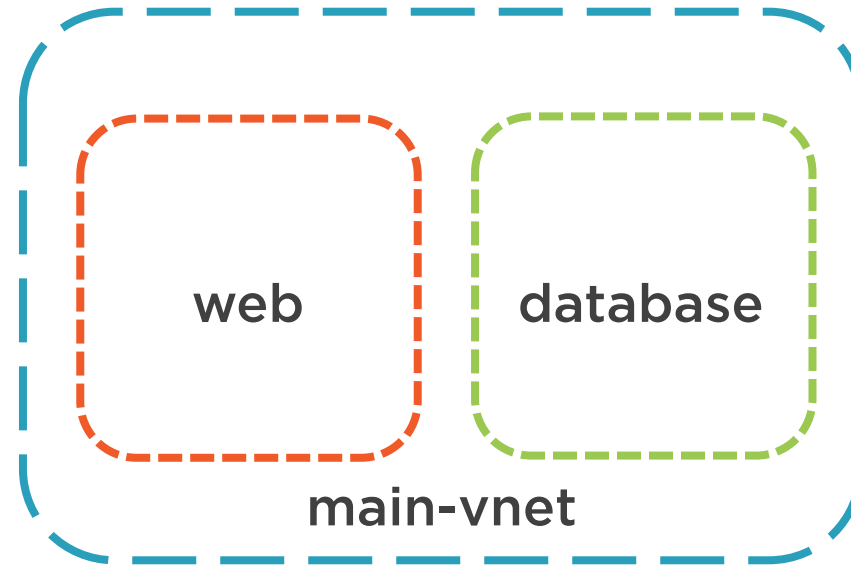
ARM_SUBSCRIPTION_ID # Azure subscription ID

ARM_TENANT_ID # Azure AD tenant ID for service principal

ARM_USE_MSI # Use Managed Service Identity



Virtual Network Deployment



Demo



Examine the Terraform file

Deploy the configuration

Review the results

Play along!

- Azure subscription
- Demo files



Some of the resources
deployed in Azure may cost
money. You've been
warned.



Summary



Terraform vs. ARM template

Azure providers

Authentication and deployment

Coming up:

- Security gets involved
- Multiple subscriptions
- Using service principals

