**TRAINING MATERIALS - MODULE HANDOUT**

**Contacts**

**robert.crutchley@qa.com**

*team.qac.all.trainers@qa.com*

*www.consulting.qa.com*

**Contents**

[**Overview**](#_aikbiglpt2xx) **1**

[**Creating**](#_ladlmk4i5e6z) **1**

[Basic Usage](#_9uekdcz8r6cu) 1

[Address Prefixing](#_lgu4bmttntyu) 1

[Create a Subnet](#_wggarsr1kb1j) 1

[**Deleting**](#_pmlkxt3h96kq) **2**

[Basic Usage](#_jgf31al1hftv) 2

[**Tasks**](#_rnn9ungzp5xj) **2**

# Overview

Networking in Azure and Cloud Computing in general is a very important and important topic to be able to understand and create solutions for. Virtual Networks (**VNets**) in Azure are networks that we can create for adding resources like virtual machines to.

# Creating

## Basic Usage

The name and Resource Group need to be provided when creating a virtual network.

|  |
| --- |
| az network vnet create --resource-group **[RESOURCE\_GROUP]** --name **[VNET\_NAME]** |
| az network vnet create --resource-group MyResourceGroup --name MyVirtualNetwork |

## Address Prefixing

The address prefix is the address range for the the virtual network, defined with CIDR notation. The default is **10.0.0.0/16**.

|  |
| --- |
| az network vnet create --resource-group **[RESOURCE\_GROUP]** --name **[VNET\_NAME]** --address-prefixes **[ADDRESS\_PREFIX]** |
| az network vnet create --resource-group MyResourceGroup --name MyVirtualNetwork --address-prefixes 10.0.0.0/16 |

## Create a Subnet

Subnets can be created with your new Virtual Network in the same command.

|  |
| --- |
| az network vnet create --resource-group **[RESOURCE\_GROUP]** --name **[VNET\_NAME]** --address-prefixes **[ADDRESS\_PREFIX]** --subnet-name **[SUBNET\_NAME]** --subnet-prefix **[SUBNET\_PREFIX]** |
| az network vnet create --resource-group MyResourceGroup --name MyVirtualNetwork --address-prefixes 10.0.0.0/16 --subnet-name MySubnet --subnet-prefix 10.0.0.0/24 |

# Deleting

## Basic Usage

Provide the name and Resource Group of the Virtual Network.

|  |
| --- |
| az network vnet delete --resource-group **[RESOURCE\_GROUP]** --name **[VNET \_NAME]** |
| az network vnet delete --resource-group MyResourceGroup --name MyVirtualNetwork |

# Tasks

* Create a new Resource Group called **VirtualNetworkExercises**
  + Set the new Resource Group as your default resource group
* Create a new Virtual Network called **FirstNetwork**
  + View information about the new network that you made
* Create a new Virtual Network:
  + Called **SecondNetwork**
  + **10.0.0.0/16** Address Prefix
  + A Subnet:
    - Called **FirstSubnet**
    - **10.0.0.0/24** Address Prefix
* Delete the **VirtualNetworkExercises** Resource Group