**ARM template to create a 3-tier environment on Azure using ARM template**

{

"$schema": "https://schema.management.azure.com/schemas/2023-07-17/deploymentTemplate.json#",

"contentVersion": "1.0.0.0",

"parameters": {

"location": {

"type": "string",

"defaultValue": "[resourceGroup().location]",

"metadata": {

"description": "Location for all resources."

}

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"applicationGatewayName": {

"type": "string",

"defaultValue": "myAppGateway",

"metadata": {

"description": "Name of the Application Gateway."

}

},

"vmssName": {

"type": "string",

"defaultValue": "myVMSS",

"metadata": {

"description": "Name of the Virtual Machine Scale Set."

}

},

"databaseName": {

"type": "string",

"defaultValue": "myDatabase",

"metadata": {

"description": "Name of the database."

}

}

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"resources": [

{

"type": "Microsoft.Network/applicationGateways",

"apiVersion": "2021-02-01",

"name": "[parameters('applicationGatewayName')]",

"location": "[parameters('location')]",

"properties": {

"sku": {

"name": "WAF\_Medium",

"tier": "WAF",

"capacity": 2

},

"frontendIPConfigurations": [

{

"name": "appGatewayFrontendIP",

"properties": {

"publicIPAddress": {

"id": "[resourceId('Microsoft.Network/publicIPAddresses', 'myPublicIP')]"

}

}

}

],

"backendAddressPools": [

{

"name": "appGatewayBackendPool",

"properties": {

"backendAddresses": [

{

"fqdn": "[reference(resourceId('Microsoft.Compute/virtualMachineScaleSets', parameters('vmssName')), 'date').dnsSettings.fqdn]"

}

]

}

}

]

}

},

{

"type": "Microsoft.Network/publicIPAddresses",

"apiVersion": "date",

"name": "myPublicIP",

"location": "[parameters('location')]",

"properties": {

"publicIPAllocationMethod": "Static"

}

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{

"type": "Microsoft.Compute/virtualMachineScaleSets",

"apiVersion": "date",

"name": "[parameters('vmssName')]",

"location": "[parameters('location')]",

"properties": {

"overprovision": true,

"upgradePolicy": {

"mode": "Manual"

},

"virtualMachineProfile": {

"storageProfile": {

"osDisk": {

"createOption": "fromImage"

},

"imageReference": {

"publisher": "Canonical",

"offer": "UbuntuServer",

"sku": "16.04-LTS",

"version": "latest"

}

},

"osProfile": {

"computerNamePrefix": "[parameters('vmssName')]",

"adminUsername": "[parameters('adminUsername')]",

"adminPassword": "[parameters('adminPassword')]"

},

"networkProfile": {

"networkInterfaceConfigurations": [

{

"name": "[concat(parameters('vmssName'), 'nic')]",

"properties": {

"primary": true,

"ipConfigurations": [

{

"name": "[concat(parameters('vmssName'), 'ipconfig')]",

"properties": {

"subnet": {

"id": "[resourceId('Microsoft.Network/virtualNetworks/subnets', 'myVNet', 'mySubnet')]"

}

}

}

]

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]

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}

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"dependsOn": [

"[resourceId('Microsoft.Network/virtualNetworks', 'myVNet')]"

]

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{

"type": "Microsoft.Network/virtualNetworks",

"apiVersion": "date",

"name": "myVNet",

"location": "[parameters('location')]",

"properties": {

"addressSpace": {

"addressPrefixes": [

"10.0.0.0/16"

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"subnets": [

{

"name": "mySubnet",

"properties": {

"addressPrefix": "10.0.0.0/24"

}

}

]

}

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{

"type": "Microsoft.Network/virtualNetworks/virtualNetworkRules",

"apiVersion": "2021-02-01",

"name": "[concat(parameters('vmssName'), 'vnetRule')]",

"location": "[parameters('location')]",

"dependsOn": [

"[resourceId('Microsoft.Network/virtualNetworks', 'myVNet')]",

"[resourceId('Microsoft.Sql/servers', 'mySqlServer')]"

],

"properties": {

"virtualNetworkSubnetId": "[resourceId('Microsoft.Network/virtualNetworks/subnets', 'myVNet', 'mySubnet')]"

}

},

{

"type": "Microsoft.Sql/servers/databases",

"apiVersion": "date-preview",

"name": "[concat(parameters('databaseName'), '-database')]",

"location": "[parameters('location')]",

"dependsOn": [

"[resourceId('Microsoft.Sql/servers', 'mySqlServer')]"

],

"properties": {

"collation": "SQL\_Latin1\_General\_CP1\_CI\_AS",

"edition": "Basic",

"maxSizeBytes": "1073741824",

"requestedServiceObjectiveName": "Basic",

"sampleName": "AdventureWorksLT",

"zoneRedundant": false

}

},

{

"type": "Microsoft.Sql/servers",

"apiVersion": "date-preview",

"name": "mySqlServer",