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{
  "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
  "contentVersion": "1.0.0.0",
  "parameters": {
    "projectName": {
      "type": "string",
      "metadata": {
        "description": "Specifies a name for generating resource names."
      }
    },
    "location": {
      "type": "string",
      "defaultValue": "[resourceGroup().location]",
      "metadata": {
        "description": "Specifies the location for all resources."
      }
    },
    "adminUsername": {
      "type": "string",
      "metadata": {
        "description": "Specifies a username for the Virtual Machine."
      }
    },
    "adminPublicKey": {
      "type": "string",
      "metadata": {
        "description": "Specifies the SSH rsa public key file as a string. Use \"ssh-keygen -t rsa -b 2048\" to generate your SSH key pairs."
      }
    },
    "vmSize": {
      "type": "string",
      "defaultValue": "Standard_D2s_v3",
      "metadata": {
        "description": "description"
      }
    }
  },
  "variables": {
    "vNetName": "[concat(parameters('projectName'), '-vnet')]",
    "vNetAddressPrefixes": "10.0.0.0/16",
    "vNetSubnetName": "default",
    "vNetSubnetAddressPrefix": "10.0.0.0/24",
    "vmName": "[concat(parameters('projectName'), '-vm')]",
    "publicIPAddressName": "[concat(parameters('projectName'), '-ip')]",
    "networkInterfaceName": "[concat(parameters('projectName'), '-nic')]",
    "networkSecurityGroupName": "[concat(parameters('projectName'), '-nsg')]",
    "networkSecurityGroupName2": "[concat(variables('vNetSubnetName'), '-nsg')]"
  },
  "resources": [
    {
      "type": "Microsoft.Network/networkSecurityGroups",
      "apiVersion": "2020-05-01",
      "name": "[variables('networkSecurityGroupName')]",
      "location": "[parameters('location')]",
      "properties": {
        "securityRules": [
          {
            "name": "ssh_rule",
            "properties": {
              "description": "Locks inbound down to ssh default port 22.",
              "protocol": "Tcp",
              "sourcePortRange": "*",
              "destinationPortRange": "22",
              "sourceAddressPrefix": "*",
              "destinationAddressPrefix": "*",
              "access": "Allow",
              "priority": 123,
              "direction": "Inbound"
            }
          },
          {
            "name": "http_rule",
            "properties": {
              "description": "Allow HTTP traffic on port 80",
              "protocol": "Tcp",
              "sourcePortRange": "*",
              "destinationPortRange": "80",
              "sourceAddressPrefix": "*",
              "destinationAddressPrefix": "*",
              "access": "Allow",
              "priority": 124,
              "direction": "Inbound"
            }
          }
        ]
      }
    }
  ]
}

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        "name": "https_rule",
        "properties": {
            "description": "Allow HTTPS traffic on port 443",
            "protocol": "Tcp",
            "sourcePortRange": "*",
            "destinationPortRange": "443",
            "sourceAddressPrefix": "*",
            "destinationAddressPrefix": "*",
            "access": "Allow",
            "priority": 125,
            "direction": "Inbound"
        }
    ]
}

},
{
    "type": "Microsoft.Network/publicIPAddresses",
    "apiVersion": "2020-05-01",
    "name": "[variables('publicIPAddressName')]",
    "location": "[parameters('location')]",
    "properties": {
        "publicIPAllocationMethod": "Dynamic"
    },
    "sku": {
        "name": "Basic"
    }
},
{
    "comments": "Simple Network Security Group for subnet [variables('vNetSubnetName')]",
    "type": "Microsoft.Network/networkSecurityGroups",
    "apiVersion": "2020-05-01",
    "name": "[variables('networkSecurityGroupName2')]",
    "location": "[parameters('location')]",
    "properties": {
        "securityRules": [
            {
                "name": "default-allow-22",
                "properties": {
                    "priority": 1000,
                    "access": "Allow",
                    "direction": "Inbound",
                    "destinationPortRange": "22",
                    "protocol": "Tcp",
                    "sourceAddressPrefix": "*",
                    "sourcePortRange": "*",
                    "destinationAddressPrefix": "*"
                }
            },
            {
                "name": "default-allow-80",
                "properties": {
                    "priority": 1010,
                    "access": "Allow",
                    "direction": "Inbound",
                    "destinationPortRange": "80",
                    "protocol": "Tcp",
                    "sourceAddressPrefix": "*",
                    "sourcePortRange": "*",
                    "destinationAddressPrefix": "*",
                    "description": "Allow HTTP inbound traffic on port 80"
                }
            },
            {
                "name": "default-allow-443",
                "properties": {
                    "priority": 1020,
                    "access": "Allow",
                    "direction": "Inbound",
                    "destinationPortRange": "443",
                    "protocol": "Tcp",
                    "sourceAddressPrefix": "*",
                    "sourcePortRange": "*",
                    "destinationAddressPrefix": "*",
                    "description": "Allow HTTPS inbound traffic on port 443"
                }
            }
        ]
    }
},
{
    "type": "Microsoft.Network/virtualNetworks",
    "apiVersion": "2020-05-01",
    "name": "[variables('vNetName')]",
    "location": "[parameters('location')]",
    "dependsOn": [
        "[resourceId('Microsoft.Network/networkSecurityGroups', variables('networkSecurityGroupName2'))]"
    ]
}

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    ],
    "properties": {
      "addressSpace": {
        "addressPrefixes": [
          "[variables('vNetAddressPrefixes')]"
        ]
      },
    },
    "subnets": [
      {
        "name": "[variables('vNetSubnetName')]",
        "properties": {
          "addressPrefix": "[variables('vNetSubnetAddressPrefix')]",
          "networkSecurityGroup": {
            "id": "[resourceId('Microsoft.Network/networkSecurityGroups', variables('networkSecurityGroupName2'))]"
          }
        }
      }
    ]
  }
},
{
  "type": "Microsoft.Network/networkInterfaces",
  "apiVersion": "2020-05-01",
  "name": "[variables('networkInterfaceName')]",
  "location": "[parameters('location')]",
  "dependsOn": [
    "[resourceId('Microsoft.Network/publicIPAddresses', variables('publicIPAddressName'))]",
    "[resourceId('Microsoft.Network/virtualNetworks', variables('vNetName'))]",
    "[resourceId('Microsoft.Network/networkSecurityGroups', variables('networkSecurityGroupName'))]"
  ],
  "properties": {
    "ipConfigurations": [
      {
        "name": "ipconfig1",
        "properties": {
          "privateIPAllocationMethod": "Dynamic",
          "publicIPAddress": {
            "id": "[resourceId('Microsoft.Network/publicIPAddresses', variables('publicIPAddressName'))]"
          },
          "subnet": {
            "id": "[resourceId('Microsoft.Network/virtualNetworks/subnets', variables('vNetName'), variables('vNetSubnetName'))]"
          }
        }
      }
    ]
  }
},
{
  "type": "Microsoft.Compute/virtualMachines",
  "apiVersion": "2021-11-01",
  "name": "[variables('vmName')]",
  "location": "[parameters('location')]",
  "dependsOn": [
    "[resourceId('Microsoft.Network/networkInterfaces', variables('networkInterfaceName'))]"
  ],
  "properties": {
    "hardwareProfile": {
      "vmSize": "[parameters('vmSize')]"
    },
    "osProfile": {
      "computerName": "[variables('vmName')]",
      "adminUsername": "[parameters('adminUsername')]",
      "linuxConfiguration": {
        "disablePasswordAuthentication": true,
        "ssh": {
          "publicKeys": [
            {
              "path": "[concat('/home/', parameters('adminUsername'), '/.ssh/authorized_keys')]",
              "keyData": "[parameters('adminPublicKey')]"
            }
          ]
        }
      }
    },
    "storageProfile": {
      "imageReference": {
        "publisher": "Canonical",
        "offer": "0001-com-ubuntu-server-jammy",
        "sku": "22_04-lts-gen2",
        "version": "latest"
      },
      "osDisk": {
        "createOption": "fromImage"
      }
    },
    "networkProfile": {

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    "networkInterfaces": [  
      {  
        "id": "[resourceId('Microsoft.Network/networkInterfaces', variables('networkInterfaceName'))]"  
      }  
    ]  
  }  
}  
]  
}
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