**6. Implementing IaC with ARM Templates on Azure**

b. Steps to create an ARM template to deploy an Azure Virtual Machine

Step 1: Define the ARM Template Structure

Step 2: Create a Basic ARM Template

Step 3: Write the JSON Template

Step 4: Save the Template

Step 5: Deploy the ARM Template

Step 6: Verify Deployment

c. Write the ARM template for deploying the VM

{

"$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",

"contentVersion": "1.0.0.0",

"parameters": {

"location": {

"type": "string",

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

"metadata": {

"description": "Location for the resources."

}

},

"vmName": {

"type": "string",

"defaultValue": "MyAzureVM",

"metadata": {

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

}

},

"adminUsername": {

"type": "string",

"metadata": {

"description": "Admin username for the VM."

}

},

"adminPassword": {

"type": "securestring",

"metadata": {

"description": "Admin password for the VM."

}

}

},

"resources": [

{

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

"apiVersion": "2022-01-01",

"name": "[concat(parameters('vmName'), '-vnet')]",

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

"properties": {

"addressSpace": {

"addressPrefixes": ["10.0.0.0/16"]

},

"subnets": [

{

"name": "default",

"properties": {

"addressPrefix": "10.0.0.0/24"

}

}

]

}

},

{

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

"apiVersion": "2022-01-01",

"name": "[concat(parameters('vmName'), '-publicIP')]",

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

"properties": {

"publicIPAllocationMethod": "Dynamic"

}

},

{

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

"apiVersion": "2022-01-01",

"name": "[concat(parameters('vmName'), '-nsg')]",

"loca