

Lab 03 - Manage Azure resources by using Azure Resource Manager Templates

- Job skills
- Task 1: Create an Azure Resource Manager template
- Task 2: Edit an Azure Resource Manager template and then redeploy the template
- Task 3: Configure the Cloud Shell and deploy a template with PowerShell
- Task 4: Deploy a template with the CLI
- Task 5: Deploy a resource by using Azure Bicep

Task 1: Create an Azure Resource Manager template

The screenshot shows the Azure portal interface for a deployment named 'Microsoft.ManagedDisk-20241023193127'. The deployment is complete, as indicated by a green checkmark and the text 'Your deployment is complete'. The deployment details show the following information:

- Deployment name: Microsoft.ManagedDisk-20241023193127
- Subscription: Azure subscription 1
- Resource group: az104-rg3
- Start time: 10/23/2024, 7:32:57 PM
- Correlation ID: 379acca0-da27-4fcb-bb92-df78d66e7e75

The deployment details table shows the following resources:

Resource	Type	Status	Operation details
az104-disk1	Disk	OK	Operation details

The 'Next steps' section includes a button labeled 'Go to resource'. On the right side, there are three informational cards: 'Cost management' (Get notified to stay within your budget and prevent unexpected charges on your bill. [Set up cost alerts >](#)), 'Microsoft Defender for Cloud' (Secure your apps and infrastructure. [Go to Microsoft Defender for Cloud >](#)), and 'Free Microsoft tutorials' (Start learning today >).

Created a managed disk

The screenshot shows the 'Template' tab in the Azure portal. The left sidebar shows the 'Parameters (1)' section, which includes a parameter named 'disks_az104_disk1_name' of type 'String'. The main area displays the JSON template for the deployment. The template defines a resource of type 'Microsoft.Compute/disks' with the following properties:

```
1 {
2   "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
3   "contentVersion": "1.0.0.0",
4   "parameters": {
5     "disks_az104_disk1_name": {
6       "defaultValue": "az104-disk1",
7       "type": "String"
8     }
9   },
10  "variables": {},
11  "resources": [
12    {
13      "type": "Microsoft.Compute/disks",
14      "apiVersion": "2024-03-02",
15      "name": "[parameters('disks_az104_disk1_name')]",
16      "location": "eastus",
17      "sku": {
18        "name": "Standard_LRS",
19        "tier": "Standard"
20      }
21    }
22  ]
23 }
```

Exported a template

Home > Microsoft.Template-20241023194009 | Overview ...

Deployment

Search Delete Cancel Redeploy Download Refresh

Overview

Inputs

Outputs

Template

Your deployment is complete

Deployment name : Microsoft.Template-20241023194009 Start time : 10/23/2024, 7:40:16 PM
Subscription : Azure subscription 1 Correlation ID : a4921b52-0ca0-4a16-b1f4-b15eb8ad4f8e
Resource group : az104-rg3

Deployment details

Resource	Type	Status	Operation details
az104-disk2	Disk	OK	Operation details

Next steps

[Go to resource](#)

Cost management
Get notified to stay within your budget and prevent unexpected charges on your bill.
[Set up cost alerts >](#)

Microsoft Defender for Cloud
Secure your apps and infrastructure
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Provisioned an infrastructure using re-configured template.

Showing 1 to 2 of 2 records. ☐ Show hidden types

☐ Name

☐ az104-disk1

☐ az104-disk2

Verifying the amount of disks

Task 3: Configure the Cloud Shell and deploy a template with PowerShell

```
PS /home/azureuser> New-AzResourceGroupDeployment -ResourceGroupName az104-rg3 -TemplateFile template.json -TemplateParameterFile parameters.json

DeploymentName      : template
ResourceGroupName  : az104-rg3
ProvisioningState   : Succeeded
Timestamp          : 10/23/2024 4:50:52 PM
Mode               : Incremental
TemplateLink        :
Parameters          :
```

Created storage account (disk2)

```
]
  "provisioningState": "Succeeded",
  "templateHash": "555163715730077222",
  "templateLink": null,
  "timestamp": "2024-10-23T16:53:03.873258+00:00",
  "validatedResources": null
},
"resourceGroup": "az104-rg3",
"tags": null,
"type": "Microsoft.Resources/deployments"
}
PS /home/azureuser>
```

Created storage account (disk4)

```

1  @description('Name of the managed disk to be copied')
2  param managedDiskName string = 'Disk4'
3
4  @description('Disk size in GiB')
5  @minValue(4)
6  @maxValue(65536)
7  param diskSizeinGiB int = 32
8
9  @description('Disk IOPS value')
10 @minValue(100)
11 @maxValue(160000)
12 param diskIopsReadWrite int = 100
13

```

Made changes to **azuredeploydisk.bicep** file.

```

}
azureuser [ ~ ]$ az disk list --output table
Name           ResourceGroup  Location  Zones  Sku           SizeGb  ProvisioningState
-----
az104-disk1    AZ104-RG3     eastus    Standard_LRS  32       Succeeded
az104-disk2    AZ104-RG3     eastus    Standard_LRS  32       Succeeded
az104-disk4    AZ104-RG3     eastus    Standard_LRS  32       Succeeded
Disk4          AZ104-RG3     eastus    StandardSSD_LRS 32       Succeeded
azureuser [ ~ ]$

```

Everything created successfully