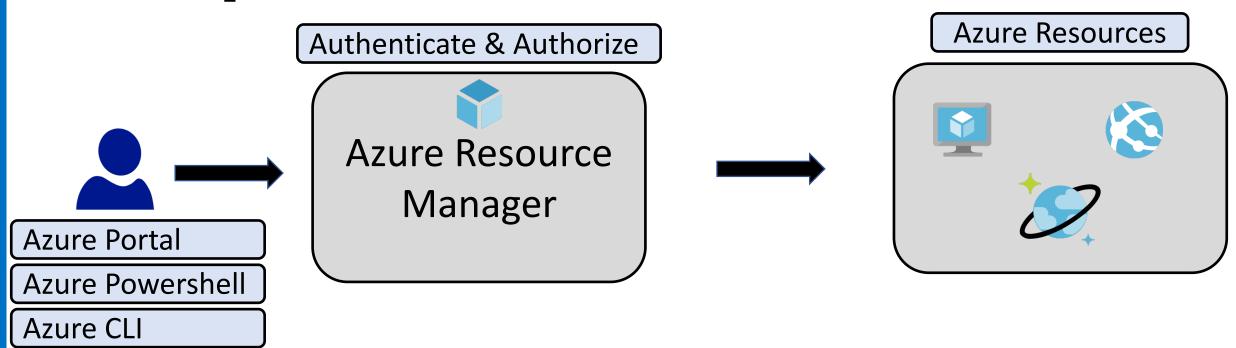
Module Completion & Exam Hints

Azure Resource Manager and ARM Templates

Azure Resource Manager Overview

APIs or SDKs

■ Azure Resource Manager is the deployment and management service for Azure; it's a management layer that enables you to create, update and delete resources



Azure Resource Manager Templates

- Declarative syntax
 - Deploy an entire infrastructure (vNET, VMs, storage, etc.)
- Deployment Orchestration
 - Orchestrate the deployment of interdependent resources, so that they are deployed in the correct order
- ☐ Template is first validated, then deployed
- Create any resource in Azure; supports also integration with CI/CD tools

Azure Template - Create a Storage Account

```
"resources": [
 "type": "Microsoft.Storage/storageAccounts",
 "apiVersion": "2016-01-01",
 "name": "mystorageaccount",
 "location": "westus",
 "sku": {
  "name": "Standard LRS"
 "kind": "Storage",
 "properties": {}
```

```
Resource provider - Resource

Name

Azure Region

Type of Storage Account - LRS

Resource Type - Storage
```

Azure Resource Groups

Resource Groups Overview

- Resource Groups logical containers for resources deployed on Azure
- All deployed resources (Azure services) are part of a single resource group, but can be moved between RGs later on
- Resources in a RG can be deployed in different Azure regions, no restrictions



We use RGs to better manage and organize our resources in Azure

Resource Groups - Organizing Principles

- We can organize resources in many ways:
 - By environment: RG-Prod, RG-Dev/Ops, RG-Testing
 - By resource type: RG-VMs, RG-Storage, RG-VNETs
 - By department: RG-IT, RG-Marketing, RG-HR
 - ☐ By admin type: RG-Owner, RG-Contributor, RG-Reader
 - ☐ By lifecycle: RG-Project1, RG-Project2
- Takeaway plan ahead of time and leverage Azure flexibility in your advantage
- ☐ Define a consistent naming convention for RGs'!

Azure Tags

Azure Tags Overview

- Azure Tags Tags are name/value pairs of text data that you can apply to resources and resource groups
 Example: Name "Environment", Value "Production"
- ☐ You can attach/bind up to 50 tags to a resource
- Common use cases cost center, department, environment, scripts, etc.



Tagging rules and naming conventions can be enforced throughout your organization with Azure Policies!

Azure Policy

Azure Policy Introduction

- Azure Policy is a service you can use to create, assign and manage policies; establish conventions or rules that resources must comply with
- Examples:
 - Create only B1S VMs, Add tag to resource
- We create a policy or use a built-in one Policy Definition and apply policy through – Policy Assignment

Azure Policy

Multiple policies can be grouped together in - Initiatives

Azure Locks

Azure Locks Overview

- Azure Locks Prevent users in your organization from accidentally deleting or modifying critical resources
- Two options are available:
 - Delete can't delete
 - Read-only can't modify or delete



- Similar to Azure Policies, when you apply Locks at a parent scope, all resources within that scope will inherit the lock
- Subscription -> Resource Groups -> Resource

Other Azure Core Services - Quiz



Thank you