Getting Started With Azure Cloud

Cloud Learning Zone

- https://youtube.com/@CloudLearningZone

- https://chat.whatsapp.com/CgVTolHVU3e7csp0hKFQAn

- https://www.linkedin.com/groups/9806371/

Hello!

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Agenda

Overview Azure Regions

Azure Subscriptions

Subscription's Types

Azure Resource Hierarchy

Azure Administrator tools

Azure Resource Manager

Azure Walkthrough

Azure Cloud Services Directory

Conclusion

Identify Regions

A region represents a collection of datacenters

Provides flexibility and scale

Preserves data residency

Select regions close to your users

Be aware of region deployment availability

There are global services that are region independent
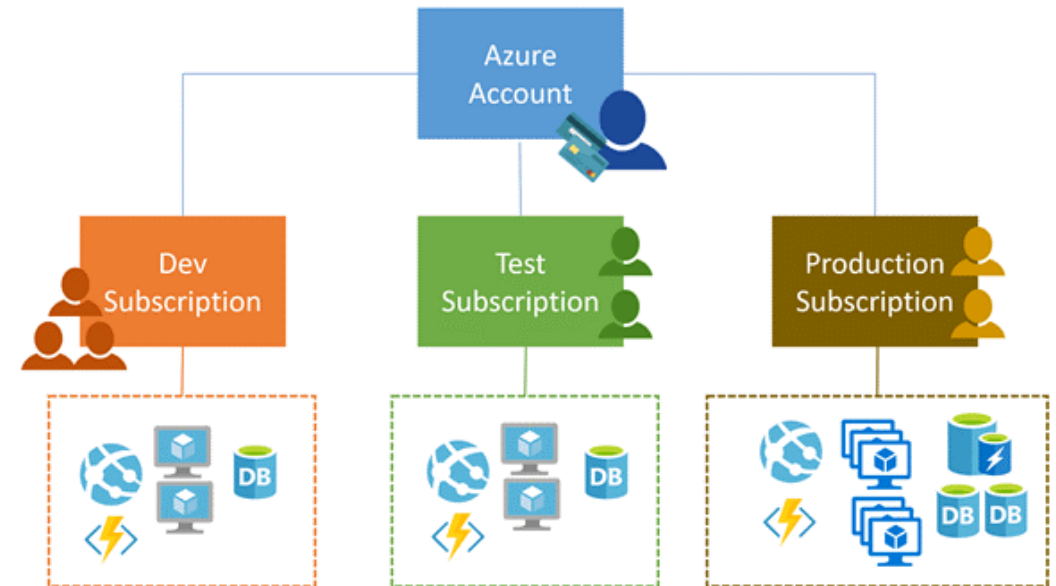
Most regions are paired for high availability

Worldwide there are 60+ regions representing 140 countries

Implement Azure Subscriptions

Only identities in Entra ID, or in a directory that is trusted by Entra ID, can create a subscription

Logical unit of Azure services that is linked to an Azure account

Security and billing boundary*

Identify Subscription Usage

Subscription	Usage
Free	Includes a $200 credit for the first 30 days, free limited access for 12 months
Pay-As-You-Go	Charges you monthly
CSP	Agreement with possible discounts through a Microsoft Cloud Solutions Provider Partner – typically for small to medium businesses
Enterprise	One agreement, with discounts for new licenses and Software Assurance – targeted at enterprise-scale organizations
Student	Includes $100 for 12 months – must verify student access

Obtain a Subscription

Enterprise Agreement customers make an upfront monetary commitment and consume services throughout the year

Resellers provide a simple, flexible way to purchase cloud services

Partners can design and implement your Azure cloud solution
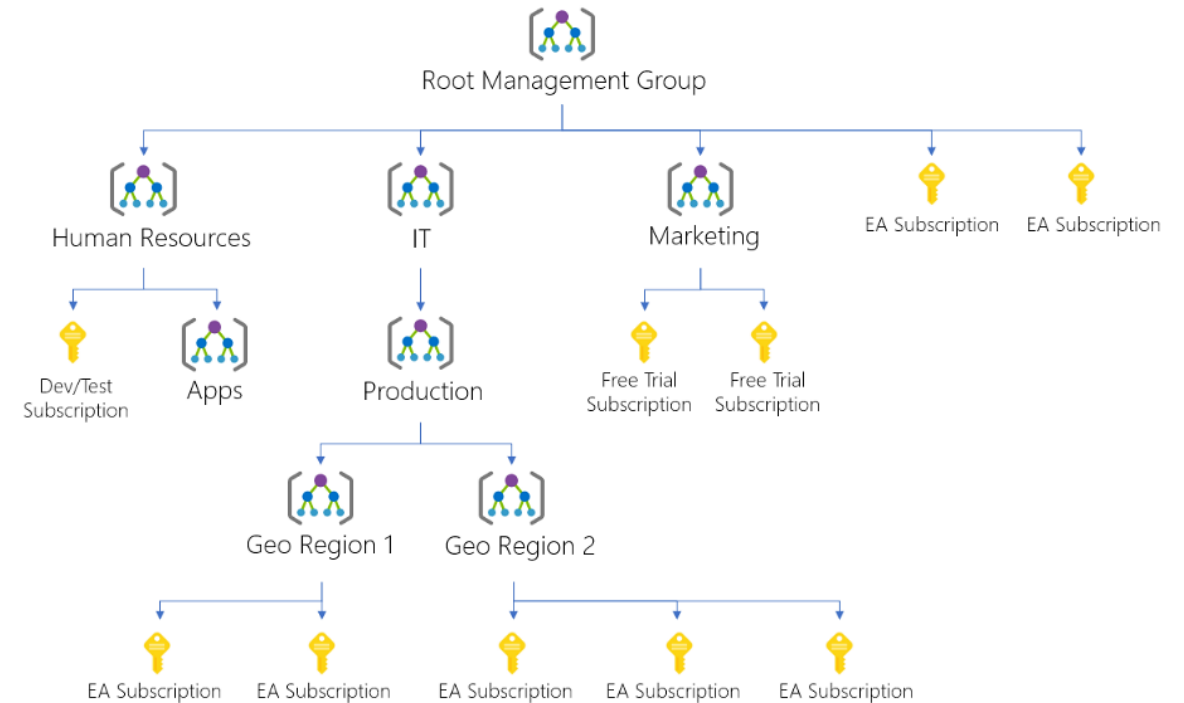
Personal free account – Start right away

Create an Azure Resource Hierarchy

Management groups provides a level of scope above subscriptions

Target policies and spend budgets across subscriptions and inheritance down the hierarchies

Implement compliance and cost reporting by organization (business/teams)

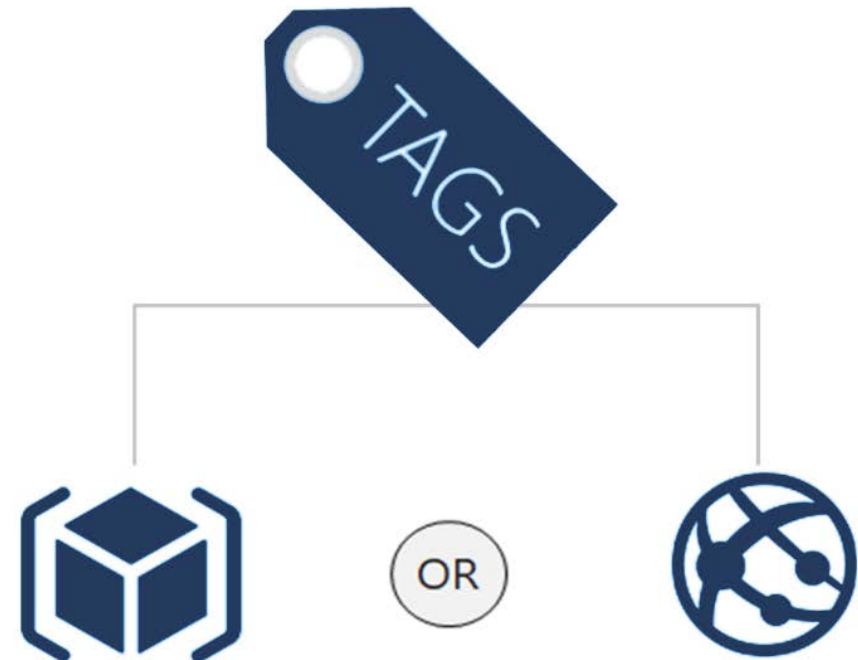* To prevent changes, apply resource locks at the subscription, resource group, or resources level

Apply Resource Tagging

Provides metadata for your Azure resources

Logically organizes resources

Consists of a name-value pair

Very useful for rolling up billing information

Owner: Joe
Department: marketing
Environment: production

OR

Cost-center: Marketing

Manage Costs

- Costs are resource-specific

- Usage costs may vary between locations

- Costs for inbound and outbound data transfers differ

- Pre-pay with Azure reserved instances

- Use your on-premises licenses with Azure Hybrid Benefit

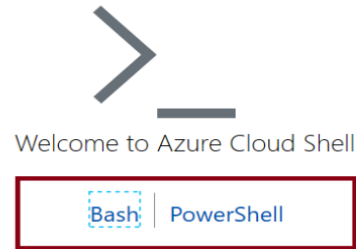- Optimize with alerts, budgets, and Azure Advisor recommendations
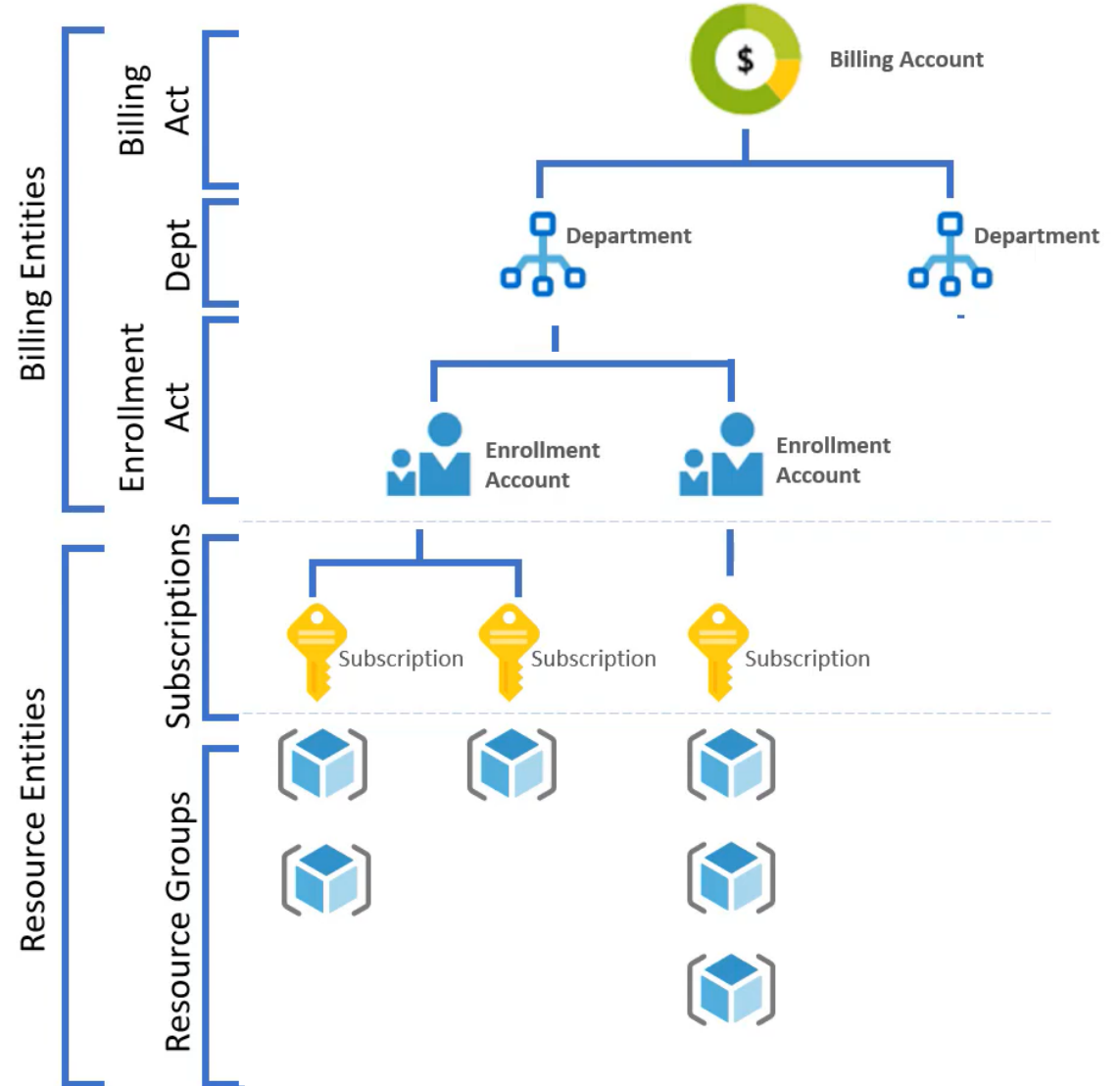
Compare Administrator tools

Azure Portal	Azure Cloud Shell	Azure PowerShell and CLI
		```az vm restart -g MyResourceGroup -n MyVm```
• View and manage resources	• Interactive and browser-accessible with file storage	• Command line programs
• Visual interface	• Offers Bash or PowerShell	• Interactive and scripting modes
• Unified hub – training and documentation	• Authenticates automatically	• Cross-platform
• Personalize your experience	• Provided on a per-session and per-user basis	• Good for repeatable deployments
• Mobile app	• Temporary - times out after 20 minutes	• Familiar coding experience
• Access the Cloud Shell		
• One-off creation scenarios		

Review ARM Template Advantages

Improves consistency and promotes reuse
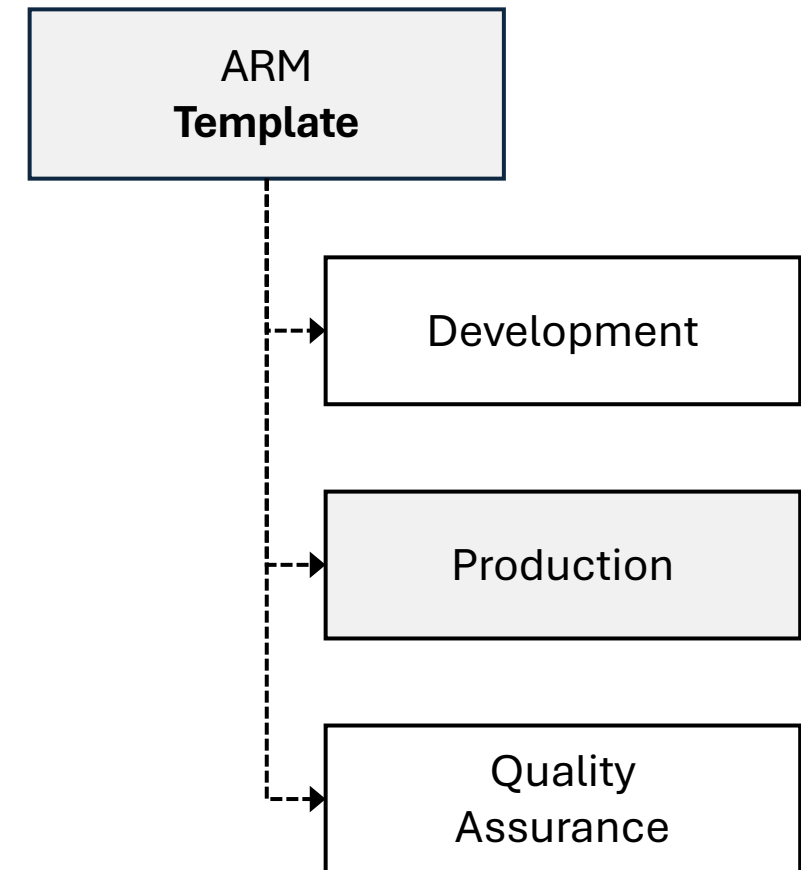
Reduce manual, error prone, and repetitive tasks

Express complex deployments

Express requirements through code

Provides validation tasks

Modular and can be linked

Simplifies orchestration

ARM
Template

Development

Production

Quality
Assurance

Explore the JSON Template Schema

Defines all the Resource manager resources in a deployment

Written in JSON
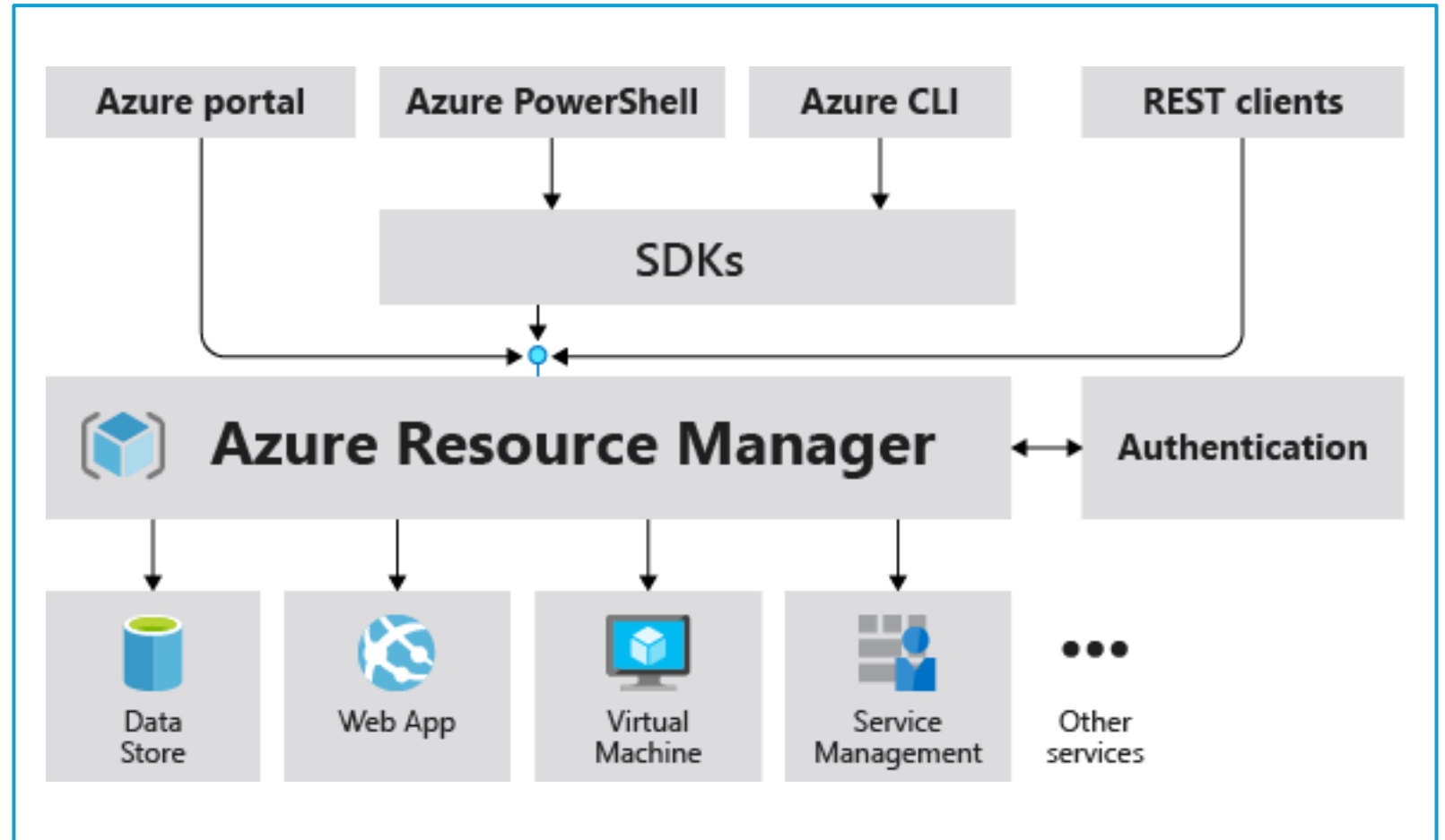
A collection of key-value pairs

Each key is a string

Each value can be a string, number, Boolean expression, list of values, object

```json
{
    "$schema":
        "http://schema.management.
        azure.com/schemas/2019-04-
        01/deploymentTemplate.json#",
    "contentVersion": "",
    "parameters": {},
    "variables": {},
    "functions": [],
    "resources": [],
    "outputs": {}
}
```

Azure Resource Manager

The **Azure Resource Manager (ARM)** provides a management layer that enables you to create, update, and delete resources in your Azure subscription.

Conclusion

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