#PitchOnline presents:

Costruisci la tua infrastruttura Azure con i muscoli di

PROJECT BICEP

Guest Speaker

Technical Speaker &
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#Coding

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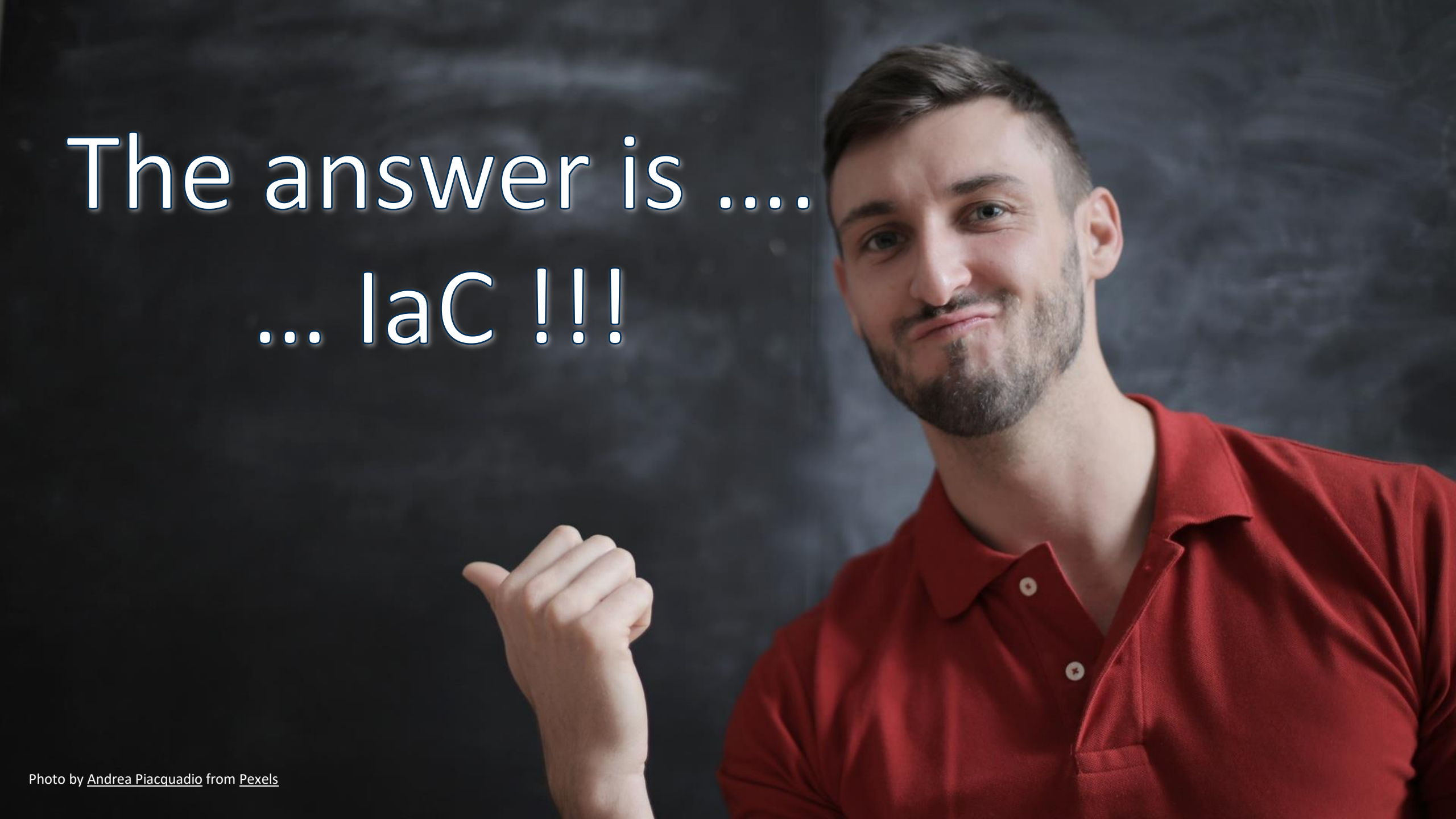
Modern solutions….

1. Your solution is composed by code and infrastructure!
2. You use versioning for your code!
3. Why don’t you use the same approach for infrastructure?



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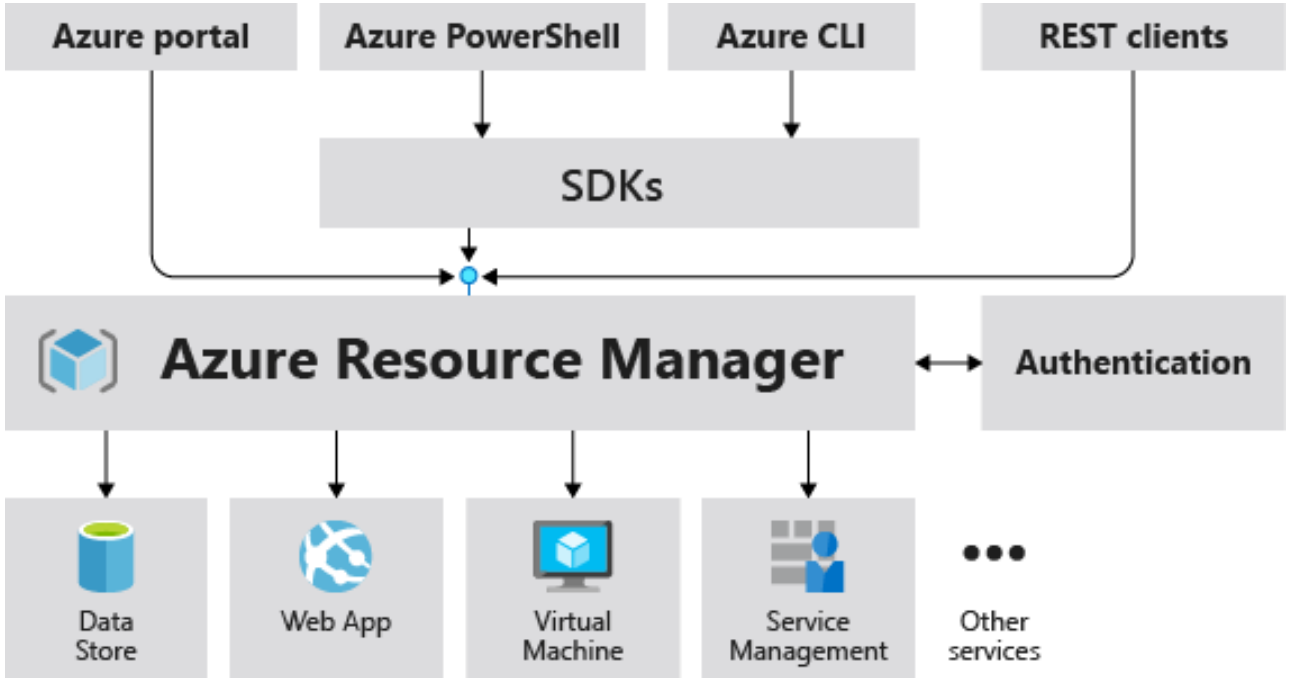
Azure Resource Manager



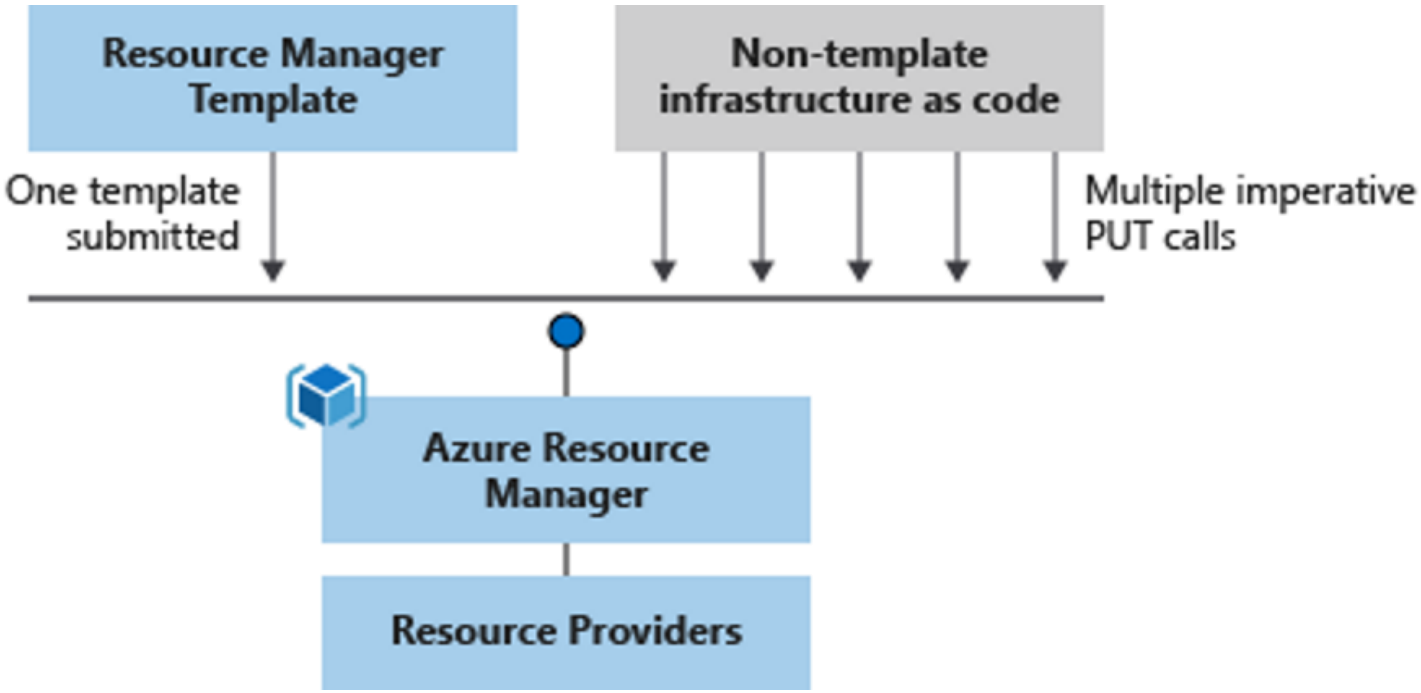
It is the deployment and management service for Azure

It provides a management layer that enables you to create, update, and delete resources in your Azure account

You can use management features, like access control, locks, and tags, to secure and organize your resources after deployment

ARM Template

Declarative syntax	Repeatable results
Orchestration	Modular files
Extensibility	Preview changes



What is Bicep?

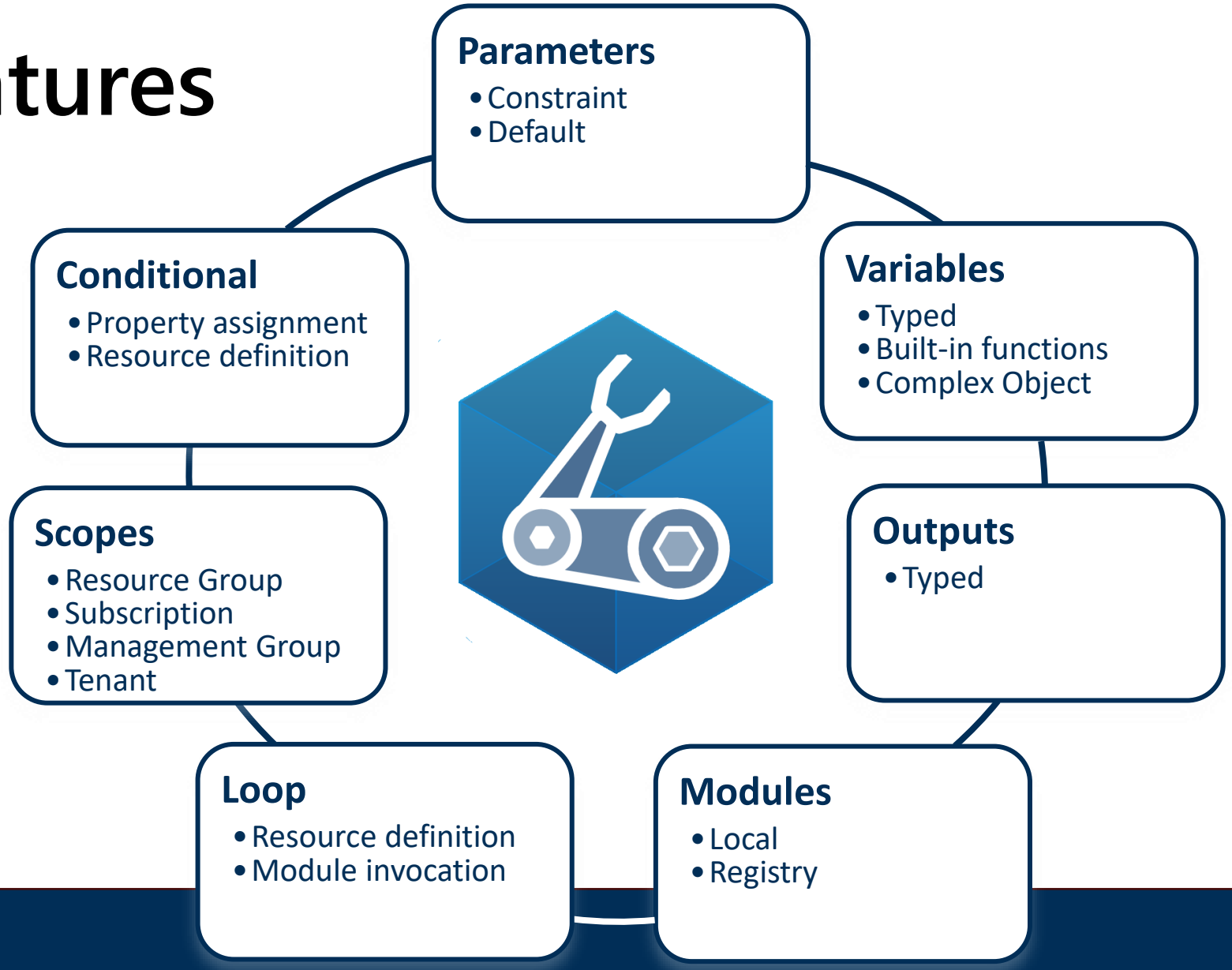
Bicep is a domain-specific language (DSL) that uses declarative syntax to deploy Azure resources.

You can use **Bicep** instead of JSON to develop your Azure Resource Manager templates (ARM templates)

Bicep syntax reduces that complexity and improves the development experience.

During deployment, **Bicep CLI** transpiles a Bicep file into ARM template JSON.

Bicep features

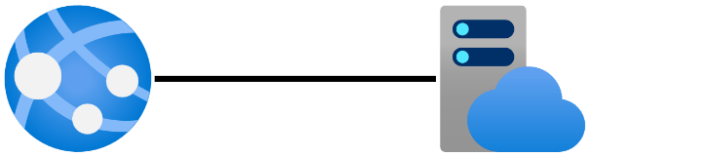


Bicep vs ARM Template

```json
{
    "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
    "contentVersion": "1.0.0.0",
    "functions": [],
    "resources": [
      {
        "type": "Microsoft.Web/sites",
        "apiVersion": "2021-01-01",
        "name": "demo-fe-dev-app",
        "location": "northeurope",
        "kind": "app",
        "properties": {
          "enabled": true,
          "serverFarmId": "[resourceId('Microsoft.Web/serverfarms', 'demo-fe-dev-plan')]"
        },
        "dependsOn": [
          "[resourceId('Microsoft.Web/serverfarms', 'demo-fe-dev-plan')]"
        ]
      },
      {
        "type": "Microsoft.Web/serverfarms",
        "apiVersion": "2021-01-01",
        "name": "demo-fe-dev-plan",
        "location": "northeurope",
        "sku": {
          "name": "F1",
          "tier": "Free"
        }
      }
    ]
}
```

JSON

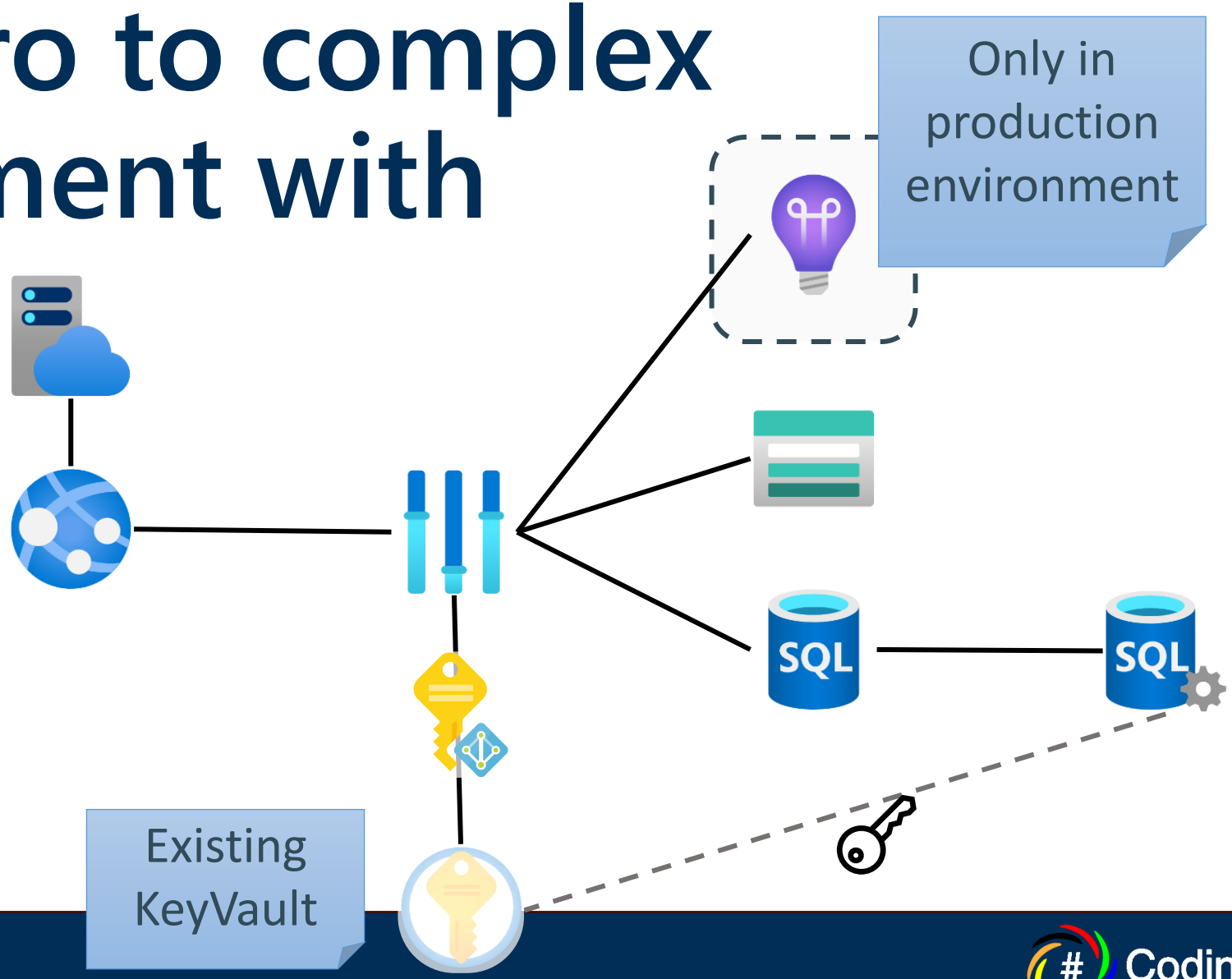
```
resource frontEndAppService 'Microsoft.Web/sites@2021-01-01' = {
  name: 'demo-fe-dev-app'
  location: 'northeurope'
  kind: 'app'
  properties: {
    enabled: true
    serverFarmId: frontEndAppServicePlan.id
  }
}

resource frontEndAppServicePlan 'Microsoft.Web/serverfarms@2021-01-01'={
  name:'demo-fe-dev-plan'
  location:'northeurope'
  sku:{
    name:'F1'
    tier:'Free'
  }
}
```



App Service — App Service Plan

DEMO

From zero to complex environment with Bicep!



When is Bicep the right tool?

Azure-native	You're using a language that is native to Azure. New resources will support on day one.
Azure integration	Fully integrated within the Azure platform.
Azure support	Bicep is a fully supported product with Microsoft Support.
No state management	You don't need to keep your resource state information somewhere else. Azure automatically keeps track of this state for you.
Easy transition from JSON	You can use the Bicep CLI to decompile any ARM template into a Bicep template by using the bicep decompile command.

When is Bicep not the right tool?

Existing tool set

"Does my organization already have a tool set in use?"

Sometimes, it makes sense to use existing financial and knowledge investments when you consider adopting a new process.

Multi-cloud

If your organization uses multiple cloud providers to host its infrastructure, Bicep might not be the right tool.

Open-source tools like Terraform can be used for multi-cloud deployments, including deployments to Azure.

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References

Bicep documentation
https://docs.microsoft.com/en-us/azure/azure-resource-manager/bicep/

Bicep Learning Paths
https://docs.microsoft.com/en-us/azure/azure-resource-manager/bicep/learn-bicep

Bicep Playground
https://bicepdemo.z22.web.core.windows.net/

Azure DevOps YouTube Channels – Project Bicep
https://www.youtube.com/watch?v=wkQIyenVfxc

Azure Deployments & Governance YouTube channel
https://www.youtube.com/watch?v=l85qv_1N2_A

Bicep GitHub repo
https://github.com/Azure/bicep

Demo GitHub repo
https://github.com/massimobonanni/BicepDemo

#Coding

Thank You!

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