

# Soup To Nuts: Azure Resource Manager Templates Made Easy

Presented by  
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# Introduction Poll

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# What is your level of understanding of Azure Resource Manager (ARM) Templates?

What is ARM?

I've heard of them, but  
never used them.

I've deployed ARM  
templates before.

I've created and deployed  
ARM templates before.

I create and deploy ARM  
templates almost every day.



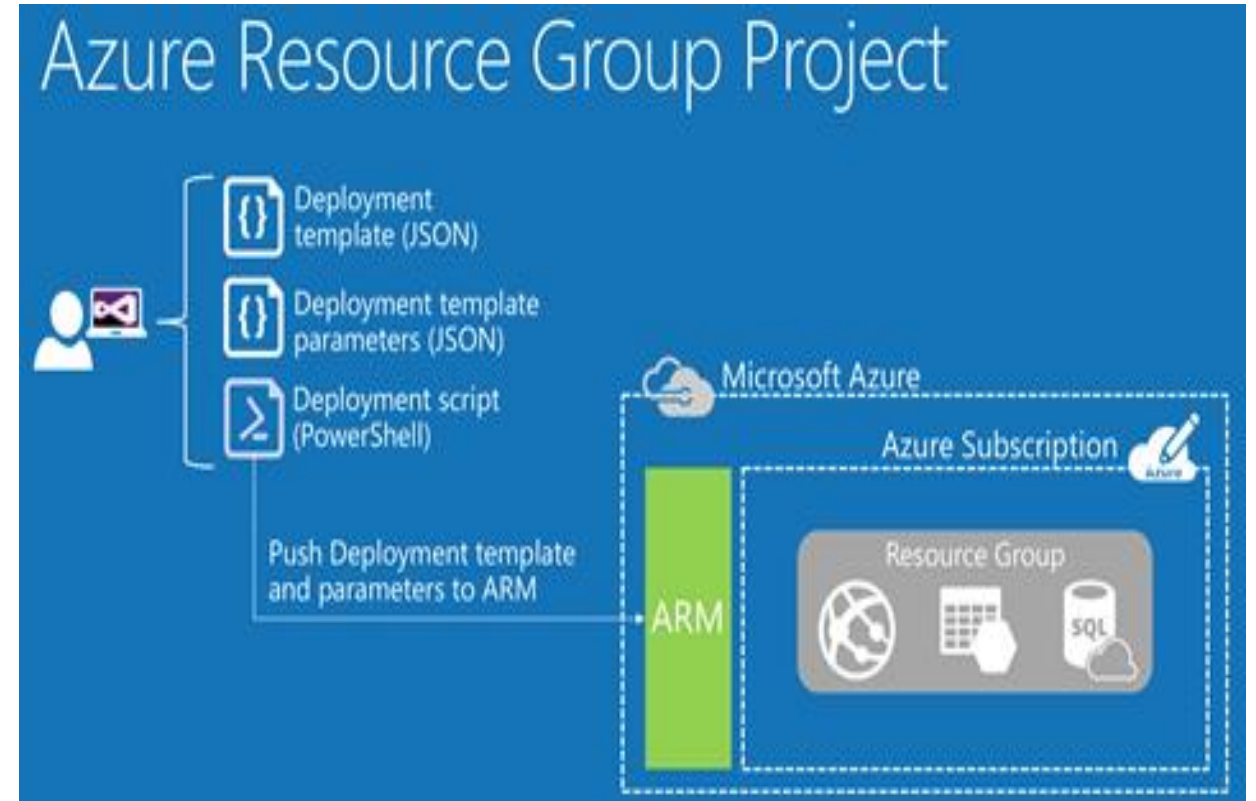
# What are you looking to get out of this class?

# Agenda

- What Are Azure Resource Manager (ARM) Templates?
- Why Use ARM Templates?
- Platform Support
- Tools Of The Trade
- ARM Template Lifecycle & Components
- Resources For Building Templates
- Deployment Options
- Demo
- Survey
- QA

# What is a Azure Resource Manager (ARM) Template?

- First Announced At Build 2014
- Idempotent
- Declarative
- JSON Template Language
- Multiple Deployment Methods
- Works On Azure / Azure Stack



# Why ARM Templates?

Speed

Usability

Cost

Management

Security

# Why ARM Templates?

## Speed

- Reduce infrastructure delivery time from Months/Weeks to Minutes
- Prevent deletion/modification of resources using resources locks
- Ability to define all configurations and dependencies to infrastructure upfront



# Why ARM Templates?

## Usability

- Ability to declaratively provision resources using templates across multiple environments
- Combine infrastructure deployment directly into application codebase
- Seamlessly integrate templates into continuous deployment for idempotent releases

# Why ARM Templates?

## Cost

- Reduced reliance on infrastructure teams by allowing developers to deploy their own infrastructure
- Resource tagging enables end to end cost visibility of resources at various levels (team, resource type, group, etc.)
- Defined templates provide more accurate cost estimations

# Why ARM Templates?

## Management

- Deploy, manage, and monitor all of the resources
- Set sequence of deployment by defining dependencies
- Enables to group & manage multiple resources as a single logical group

# Why ARM Templates?

## Security

- Role-Based Access Control (RBAC) is natively integrated
- Deploy full or incremental template changes to keep environments clean and free from configuration drift
- Deployments are tracked and logged from end to end regardless of the deployment mechanism

# Platform Support – Something For Everyone!



SDK For .NET



SDK For Java



Node.js



PHP



Python



Ruby

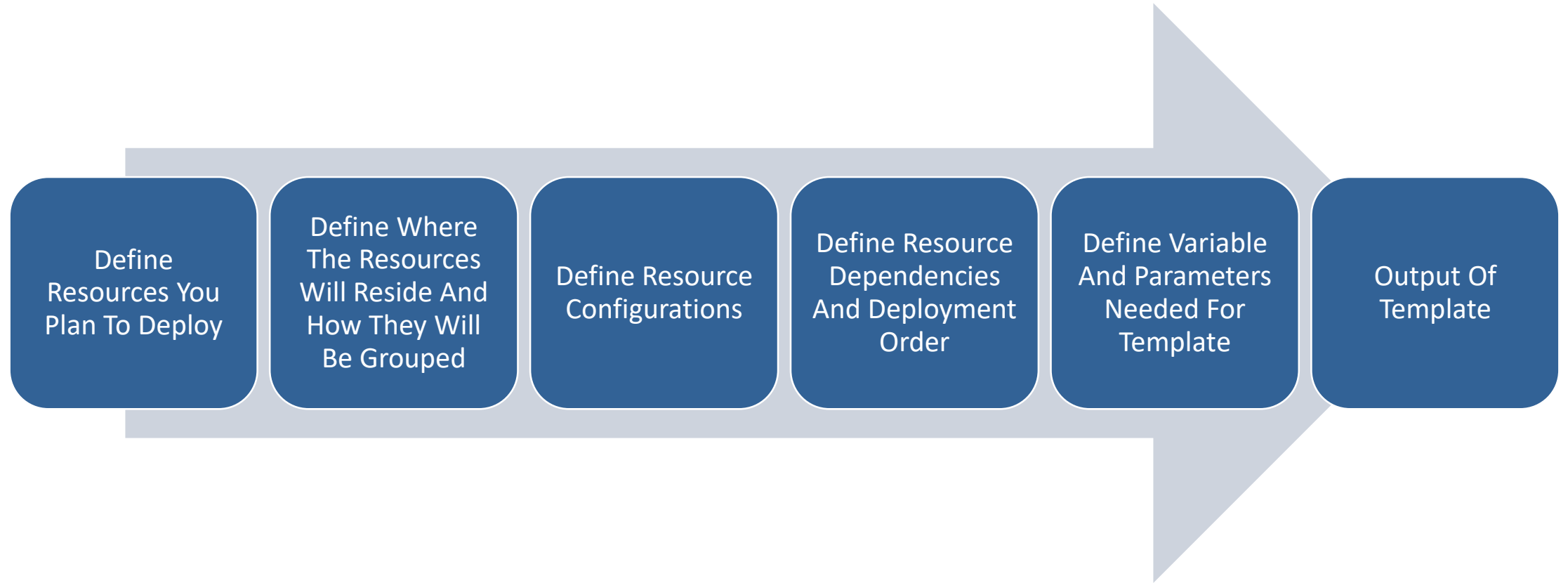


REST API

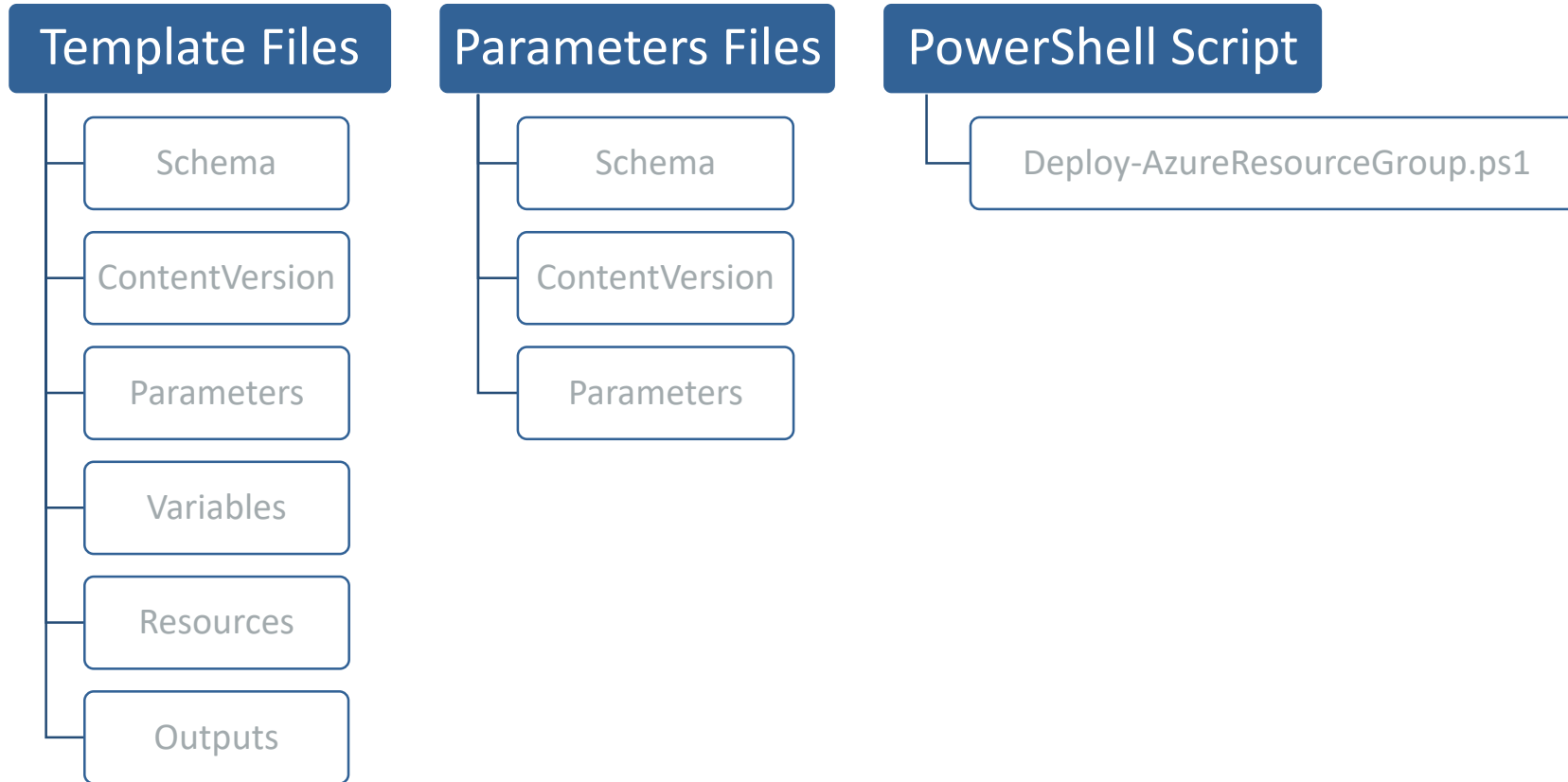
# Tools of the Trade (ALL FREE!)

- PowerShell
- GitHub Account – <http://www.github.com>
- Visual Studio Code - <http://code.visualstudio.com>
- Azure Account – <https://azure.microsoft.com/en-us/free>
- VSTS Account - <https://www.visualstudio.com/team-services/pricing/>
- Visual Studio Community Edition (with Azure SDK) – <https://www.visualstudio.com/downloads/>
- ARM Quickstart Templates – <https://github.com/Azure/azure-quickstart-templates>

# ARM Template Lifecycle



# ARM Templates Components





# Resources For Building Templates

- Premade Components In Visual Studio JSON Outline
- Azure Open Source Templates On GitHub
  - <https://github.com/Azure/azure-quickstart-templates>
- Automation Options From “Create A Resource” In Azure Portal
- View Template From Deploy History
- Export From Resource Group Via Automation Script Selection

# Deployment Options

- GitHub (Azure Portal URL-Based Deployment)
- Visual Studio
- Azure PowerShell
- Azure CLI
- Azure Rest API
- Click To Deploy

# DEMO



# Conclusion Poll

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Q & A

## Stay Connected

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If you have questions or would like more information, feel free to contact me via email [sean.davis@agilethought.com](mailto:sean.davis@agilethought.com)