

KOENIG SOLUTIONS • COURSE OUTLINE

Fundamentals of Bicep Training

Learn to apply infrastructure as code with Azure Resource Manager and Bicep to deploy and manage Azure resources.

5

MODULES

52

TOPICS

COURSE OVERVIEW

This course introduces infrastructure as code, covering its definition, benefits and use of imperative and declarative approaches. It then examines Azure Resource Manager, its core concepts, terminology and the role of ARM templates, including JSON and Bicep formats. The course explains what Bicep is, its benefits over JSON, how it works and how it is deployed, before comparing JSON and Bicep templates directly. It concludes by considering when Bicep is and is not the appropriate tool for a given scenario.

WHO THIS COURSE IS FOR

Cloud Engineers

Infrastructure Engineers

DevOps Engineers

Azure Administrators

Solution Architects

LEARNING OBJECTIVES

- Explain what infrastructure as code is and why it is used
- Describe Azure Resource Manager concepts and terminology
- Identify the benefits of using ARM templates
- Explain what Bicep is and its benefits over JSON
- Describe how Bicep works and how it is deployed
- Compare JSON and Bicep templates
- Assess when Bicep is the right tool for a scenario
- Assess when Bicep is not the right tool for a scenario

5 Modules, 52 Topics

01

Unit 1

TOPICS

What is infrastructure as code? · Defining Infrastructure as code · Why use Infrastructure as code?

INCREASE CONFIDENCE

Integration with current processes · Consistency · Automated scanning · Secret management · Access control · Avoid configuration drift

MANAGE MULTIPLE ENVIRONMENTS

Provision new environments · Non-production environments · Disaster recovery

BETTER UNDERSTAND YOUR CLOUD RESOURCES

Audit trail · Documentation · Unified system · Better understanding of cloud infrastructure

Imperative and declarative code

02

Unit 2

TOPICS

What is Azure Resource Manager? · Azure Resource Manager concepts

TERMINOLOGY

Resource · Resource group · Subscription · Management group · Azure Resource Manager template

Benefits · **Operations:** Control plane and data plane

WHY USE ARM TEMPLATES?

Repeatable results · Orchestration · Preview · Testing and Validation · Modularity · CI/CD integration · Extensibility

JSON and Bicep templates

03

Unit 3

TOPICS

What is Bicep?

BENEFITS OF BICEP

Simpler syntax · Modules · Automatic dependency management · Type validation and IntelliSense

04

Unit 4

TOPICS

How Bicep works · Bicep deployment · Comparing JSON and Bicep

05

Unit 5

TOPICS

- When to use Bicep
- Is Bicep the right tool?

WHEN IS BICEP THE RIGHT TOOL?

- Azure-native
- Azure integration
- Azure support
- No state management
- Easy transition from JSON

WHEN IS BICEP NOT THE RIGHT TOOL?

- Existing tool set
- Multicloud

WHAT IS THE MAIN GOAL?

- After completing this module, you'll be able to determine whether infrastructure as code is the right approach and tool for your organization

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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