**Exam objectives**

| **1** | **Understand infrastructure as code (IaC) concepts** |
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| 1a | Explain what IaC is |
| 1b | Describe advantages of IaC patterns |

| **2** | **Understand the purpose of Terraform (vs other IaC)** |
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| 2a | Explain multi-cloud and provider-agnostic benefits |
| 2b | Explain the benefits of state |

| **3** | **Understand Terraform basics** |
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| 3a | Install and version Terraform providers |
| 3b | Describe plugin-based architecture |
| 3c | Write Terraform configuration using multiple providers |
| 3d | Describe how Terraform finds and fetches providers |

| **4** | **Use Terraform outside of core workflow** |
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| 4a | Describe when to use terraform import to import existing infrastructure into your Terraform state |
| 4b | Use terraform state to view Terraform state |
| 4c | Describe when to enable verbose logging and what the outcome/value is |

| **5** | **Interact with Terraform modules** |
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| 5a | Contrast and use different module source options including the public Terraform Module Registry |
| 5b | Interact with module inputs and outputs |
| 5c | Describe variable scope within modules/child modules |
| 5d | Set module version |

| **6** | **Use the core Terraform workflow** |
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| 6a | Describe Terraform workflow ( Write -> Plan -> Create ) |
| 6b | Initialize a Terraform working directory (terraform init) |
| 6c | Validate a Terraform configuration (terraform validate) |
| 6d | Generate and review an execution plan for Terraform (terraform plan) |
| 6e | Execute changes to infrastructure with Terraform (terraform apply) |
| 6f | Destroy Terraform managed infrastructure (terraform destroy) |
| 6g | Apply formatting and style adjustments to a configuration (terraform fmt) |

| **7** | **Implement and maintain state** |
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| 7a | Describe default local backend |
| 7b | Describe state locking |
| 7c | Handle backend and cloud integration authentication methods |
| 7d | Differentiate remote state back end options |
| 7e | Manage resource drift and Terraform state |
| 7f | Describe backend block and cloud integration in configuration |
| 7g | Understand secret management in state files |

| **8** | **Read, generate, and modify configuration** |
| --- | --- |
| 8a | Demonstrate use of variables and outputs |
| 8b | Describe secure secret injection best practice |
| 8c | Understand the use of collection and structural types |
| 8d | Create and differentiate resource and data configuration |
| 8e | Use resource addressing and resource parameters to connect resources together |
| 8f | Use HCL and Terraform functions to write configuration |
| 8g | Describe built-in dependency management (order of execution based) |

| **9** | **Understand Terraform Cloud capabilities** |
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| 9a | Explain how Terraform Cloud helps to manage infrastructure |
| 9b | Describe how Terraform Cloud enables collaboration and governance |