

Terraform-Associate-003 Dumps

HashiCorp Certified: Terraform Associate (003)

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NEW QUESTION 1

Which of the following is not a key principle of infrastructure as code?

- A. Self-describing infrastructure
- B. Idempotence
- C. Versioned infrastructure
- D. Golden images

Answer: D

Explanation:

The key principle of infrastructure as code that is not listed among the options is golden images. Golden images are pre-configured, ready-to-use virtual machine images that contain a specific set of software and configuration. They are often used to create multiple identical instances of the same environment, such as for testing or production. However, golden images are not a principle of infrastructure as code, but rather a technique that can be used with or without infrastructure as code. The other options are all key principles of infrastructure as code, as explained below:

? Self-describing infrastructure: This means that the infrastructure is defined in code that describes its desired state, rather than in scripts that describe the steps to create it. This makes the infrastructure easier to understand, maintain, and reproduce.

? Idempotence: This means that applying the same infrastructure code multiple times will always result in the same state, regardless of the initial state. This makes the infrastructure consistent and predictable, and avoids errors or conflicts caused by repeated actions.

? Versioned infrastructure: This means that the infrastructure code is stored in a version control system, such as Git, that tracks the changes and history of the code. This makes the infrastructure code reusable, auditable, and collaborative, and enables practices such as branching, merging, and rollback. References = [Introduction to Infrastructure as Code with Terraform], [Infrastructure as Code in a Private or Public Cloud]

NEW QUESTION 2

You have to initialize a Terraform backend before it can be configured.

- A. True
- B. False

Answer: B

Explanation:

You can configure a backend in your Terraform code before initializing it. Initializing a backend will store the state file remotely and enable features like locking and workspaces. References = [Terraform Backends]

NEW QUESTION 3

A terraform apply can not infrastructure.

- A. change
- B. destroy
- C. provision
- D. import

Answer: D

Explanation:

The terraform import command is used to import existing infrastructure into Terraform's state. This allows Terraform to manage and destroy the imported infrastructure as part of the configuration. The terraform import command does not modify the configuration, so the imported resources must be manually added to the configuration after the import. References = [Importing Infrastructure]

NEW QUESTION 4

Which option cannot be used to keep secrets out of Terraform configuration files?

- A. A Terraform provider
- B. Environment variables
- C. A -var flag
- D. secure string

Answer: D

Explanation:

A secure string is not a valid option to keep secrets out of Terraform configuration files. A secure string is a feature of AWS Systems Manager Parameter Store that allows you to store sensitive data encrypted with a KMS key. However, Terraform does not support secure strings natively and requires a custom data source to retrieve them. The other options are valid ways to keep secrets out of Terraform configuration files. A Terraform provider can expose secrets as data sources that can be referenced in the configuration. Environment variables can be used to set values for input variables that contain secrets. A -var flag can be used to pass values for input variables that contain secrets from the command line or a file. References = [AWS Systems Manager Parameter Store], [Terraform AWS Provider Issue #55], [Terraform Providers], [Terraform Input Variables]

NEW QUESTION 5

How does Terraform determine dependencies between resources?

- A. Terraform requires resource dependencies to be defined as modules and sourced in order
- B. Terraform automatically builds a resource graph based on resources provisioners, special meta-parameters, and the stale file (if present)
- C. Terraform requires resources in a configuration to be listed in the order they will be created to determine dependencies
- D. Terraform requires all dependencies between resources to be specified using the depends_on parameter

Answer:

B

Explanation:

This is how Terraform determines dependencies between resources, by using the references between them in the configuration files and other factors that affect the order of operations.

NEW QUESTION 6

Terraform providers are always installed from the Internet.

- A. True
- B. False

Answer: B

Explanation:

Terraform providers are not always installed from the Internet. There are other ways to install provider plugins, such as from a local mirror or cache, from a local filesystem directory, or from a network filesystem. These methods can be useful for offline or air-gapped environments, or for customizing the installation process. You can configure the provider installation methods using the provider_installation block in the CLI configuration file.

NEW QUESTION 7

While attempting to deploy resources into your cloud provider using Terraform, you begin to see some odd behavior and experience slow responses. In order to troubleshoot you decide to turn on Terraform debugging. Which environment variables must be configured to make Terraform's logging more verbose?

- A. TF_LOG_PAIRH
- B. TF_LOG
- C. TF_VAR_log_path
- D. TF_VAR_log_level

Answer: B

Explanation:

To make Terraform's logging more verbose for troubleshooting purposes, you must configure the TF_LOG environment variable. This variable controls the level of logging and can be set to TRACE, DEBUG, INFO, WARN, or ERROR, with TRACE providing the most verbose output. References = Detailed debugging instructions and the use of environment variables like TF_LOG for increasing verbosity are part of Terraform's standard debugging practices

NEW QUESTION 8

A developer on your team is going to tear down an existing deployment managed by Terraform and deploy a new one. However, there is a server resource named aws_instance.ubuntu[1] they would like to keep. What command should they use to tell Terraform to stop managing that specific resource?

- A. Terraform plan rm:aws_instance.ubuntu[1]
- B. Terraform state rm:aws_instance.ubuntu[1]
- C. Terraform apply rm:aws_instance.ubuntu[1]
- D. Terraform destroy rm:aws_instance.ubuntu[1]

Answer: B

Explanation:

To tell Terraform to stop managing a specific resource without destroying it, you can use the terraform state rm command. This command will remove the resource from the Terraform state, which means that Terraform will no longer track or update the corresponding remote object. However, the object will still exist in the remote system and you can later use terraform import to start managing it again in a different configuration or workspace. The syntax for this command is terraform state rm <address>, where <address> is the resource address that identifies the resource instance to remove.

For example, terraform state rm aws_instance.ubuntu[1] will remove the second instance of the aws_instance resource named ubuntu from the state. References = : Command: state rm : Moving Resources

NEW QUESTION 9

Which of these are features of Terraform Cloud? Choose two correct answers.

- A. Automated infrastructure deployment visualization
- B. Automatic backups
- C. A web-based user interface (UI)
- D. Remote state storage

Answer: CD

Explanation:

These are features of Terraform Cloud, which is a hosted service that provides a web-based UI, remote state storage, remote operations, collaboration features, and more for managing your Terraform infrastructure.

NEW QUESTION 10

Your DevOps team is currently using the local backend for your Terraform configuration. You would like to move to a remote backend to store the state file in a central location. Which of the following backends would not work?

- A. Artifactory
- B. Amazon S3
- C. Terraform Cloud
- D. Git

Answer: D

Explanation:

This is not a valid backend for Terraform, as it does not support locking or versioning of state files⁴. The other options are valid backends that can store state files in a central location.

NEW QUESTION 10

Which of the following is not a valid Terraform collection type?

- A. Tree
- B. Map
- C. List
- D. set

Answer: A

Explanation:

This is not a valid Terraform collection type, as Terraform only supports three collection types: list, map, and set. A tree is a data structure that consists of nodes with parent-child relationships, which is not supported by Terraform.

NEW QUESTION 12

When you use a remote backend that needs authentication, HashiCorp recommends that you:

- A. Write the authentication credentials in the Terraform configuration files
- B. Keep the Terraform configuration files in a secret store
- C. Push your Terraform configuration to an encrypted git repository
- D. Use partial configuration to load the authentication credentials outside of the Terraform code

Answer: D

Explanation:

This is the recommended way to use a remote backend that needs authentication, as it allows you to provide the credentials via environment variables, command-line arguments, or interactive prompts, without storing them in the Terraform configuration files.

NEW QUESTION 16

What are some benefits of using Sentinel with Terraform Cloud/Terraform Cloud? Choose three correct answers.

- A. You can restrict specific resource configurations, such as disallowing the use of CIDR=0.0.0.0/0.
- B. You can check out and check in cloud access keys
- C. Sentinel Policies can be written in HashiCorp Configuration Language (HCL)
- D. Policy-as-code can enforce security best practices
- E. You can enforce a list of approved AWS AMIs

Answer: ADE

Explanation:

Sentinel is a policy-as-code framework that allows you to define and enforce rules on your Terraform configurations, states, and plans¹. Some of the benefits of using Sentinel with Terraform Cloud/Terraform Enterprise are:

- You can restrict specific resource configurations, such as disallowing the use of CIDR=0.0.0.0/0, which would open up your network to the entire internet. This can help you prevent misconfigurations or security vulnerabilities in your infrastructure².
- Policy-as-code can enforce security best practices, such as requiring encryption, authentication, or compliance standards. This can help you protect your data and meet regulatory requirements³.
- You can enforce a list of approved AWS AMIs, which are pre-configured images that contain the operating system and software you need to run your applications. This can help you ensure consistency, reliability, and performance across your infrastructure⁴. References =
 - 1: Terraform and Sentinel | Sentinel | HashiCorp Developer
 - 2: Terraform Learning Resources: Getting Started with Sentinel in Terraform Cloud
 - 3: Exploring the Power of HashiCorp Terraform, Sentinel, Terraform Cloud ??
 - 4: Using New Sentinel Features in Terraform Cloud – Medium

NEW QUESTION 17

You should run terraform fmt to rewrite all Terraform configurations within the current working directory to conform to Terraform-style conventions.

- A. True
- B. False

Answer: A

Explanation:

You should run terraform fmt to rewrite all Terraform configurations within the current working directory to conform to Terraform-style conventions. This command applies a subset of the Terraform language style conventions, along with other minor adjustments for readability. It is recommended to use this command to ensure consistency of style across different Terraform codebases. The command is optional, opinionated, and has no customization options, but it can help you and your team understand the code more quickly and easily. References = : Command: fmt : Using Terraform fmt Command to Format Your Terraform Code

NEW QUESTION 22

You add a new resource to an existing Terraform configuration, but do not update the version constraint in the configuration. The existing and new resources use the same provider. The working contains a .terraform.lock, hc1 file.

How will Terraform choose which version of the provider to use?

- A. Terraform will use the version recorded in your lock file
- B. Terraform will use the latest version of the provider for the new resource and the version recorded in the lock file to manage existing resources
- C. Terraform will check your state file to determine the provider version to use
- D. Terraform will use the latest version of the provider available at the time you provision your new resource

Answer: A

Explanation:

This is how Terraform chooses which version of the provider to use, when you add a new resource to an existing Terraform configuration, but do not update the version constraint in the configuration. The lock file records the exact version of each provider that was installed in your working directory, and ensures that Terraform will always use the same provider versions until you run terraform init -upgrade to update them.

NEW QUESTION 27

What feature stops multiple users from operating on the Terraform state at the same time?

- A. State locking
- B. Version control
- C. Provider constraints
- D. Remote backends

Answer: A

Explanation:

State locking prevents other users from modifying the state file while a Terraform operation is in progress. This prevents conflicts and data loss¹.

NEW QUESTION 30

Running terraform fmt without any flags in a directory with Terraform configuration files check the formatting of those files without changing their contents.

- A. True
- B. False

Answer: B

Explanation:

Running terraform fmt without any flags in a directory with Terraform configuration files will not check the formatting of those files without changing their contents, but will actually rewrite them to a canonical format and style. If you want to check the formatting without making changes, you need to use the -check flag.

NEW QUESTION 33

Setting the TF_LOG environment variable to DEBUG causes debug messages to be logged into stdout.

- A. True
- B. False

Answer: A

Explanation:

Setting the TF_LOG environment variable to DEBUG causes debug messages to be logged into stdout, along with other log levels such as TRACE, INFO, WARN, and ERROR. This can be useful for troubleshooting or debugging purposes.

NEW QUESTION 37

You want to define multiple data disks as nested blocks inside the resource block for a virtual machine. What Terraform feature would help you define the blocks using the values in a variable?

- A. Local values
- B. Count arguments
- C. Collection functions
- D. Dynamic blocks

Answer: D

Explanation:

Dynamic blocks in Terraform allow you to define multiple nested blocks within a resource based on the values of a variable. This feature is particularly useful for scenarios where the number of nested blocks is not fixed and can change based on variable input.

NEW QUESTION 41

Which of the following is not a valid string function in Terraform?

- A. choaf
- B. join
- C. Split
- D. slice

Answer: A

Explanation:

This is not a valid string function in Terraform. The other options are valid string functions that can manipulate strings in various ways².

NEW QUESTION 42

Which configuration consistency errors does terraform validate report?

- A. Terraform module isn't the latest version
- B. Differences between local and remote state
- C. Declaring a resource identifier more than once
- D. A mix of spaces and tabs in configuration files

Answer: C

Explanation:

Terraform validate reports configuration consistency errors, such as declaring a resource identifier more than once. This means that the same resource type and name combination is used for multiple resource blocks, which is not allowed in Terraform. For example, resource "aws_instance" "example" {...} cannot be used more than once in the same configuration. Terraform validate does not report errors related to module versions, state differences, or formatting issues, as these are not relevant for checking the configuration syntax and structure. References = [Validate Configuration], [Resource Syntax]

NEW QUESTION 44

Which of the following methods, used to provision resources into a public cloud, demonstrates the concept of infrastructure as code?

- A. curl commands manually run from a terminal
- B. A sequence of REST requests you pass to a public cloud API endpoint Most Voted
- C. A script that contains a series of public cloud CLI commands
- D. A series of commands you enter into a public cloud console

Answer: C

Explanation:

The concept of infrastructure as code (IaC) is to define and manage infrastructure using code, rather than manual processes or GUI tools. A script that contains a series of public cloud CLI commands is an example of IaC, because it uses code to provision resources into a public cloud. The other options are not examples of IaC, because they involve manual or interactive actions, such as running curl commands, sending REST requests, or entering commands into a console. References = [Introduction to Infrastructure as Code with Terraform] and [Infrastructure as Code]

NEW QUESTION 49

You are writing a child Terraform module that provisions an AWS instance. You want to reference the IP address returned by the child module in the root configuration. You name the instance resource "main".

Which of these is the correct way to define the output value?

A)

```
output "instance_ip_addr" {  
  return aws_instance.main.private_ip  
}
```

B)

```
output "aws_instance.instance_ip_addr" {  
  return aws_instance.main.private_ip  
}
```

C)

```
output "aws_instance.instance_ip_addr" {  
  value = ${main.private_ip}  
}
```

D)

```
output "instance_ip_addr" {  
    value = aws_instance.main.private_ip  
}
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: D

NEW QUESTION 52

If you manually destroy infrastructure, what is the best practice reflecting this change in Terraform?

- A. Run terraform refresh
- B. It will happen automatically
- C. Manually update the state file
- D. Run terraform import

Answer: B

Explanation:

If you manually destroy infrastructure, Terraform will automatically detect the change and update the state file during the next plan or apply. Terraform compares the current state of the infrastructure with the desired state in the configuration and generates a plan to reconcile the differences. If a resource is missing from the infrastructure but still exists in the state file, Terraform will attempt to recreate it. If a resource is present in the infrastructure but not in the state file, Terraform will ignore it unless you use the terraform import command to bring it under Terraform's management. References = [Terraform State]

NEW QUESTION 53

You have deployed a new webapp with a public IP address on a cloud provider. However, you did not create any outputs for your code. What is the best method to quickly find the IP address of the resource you deployed?

- A. In a new folder, use the terraform_remote_state data source to load in the state file, then write an output for each resource that you find the state file
- B. Run terraform state list to find the name of the resource, then terraform state show to find the attributes including public IP address
- C. Run terraform output ip_address to view the result
- D. Run terraform destroy then terraform apply and look for the IP address in stdout

Answer: B

Explanation:

This is a quick way to inspect the state file and find the information you need without modifying anything. The other options are either incorrect or inefficient.

NEW QUESTION 54

How does the Terraform cloud integration differ from other state backends such as S3, Consul, etc?

- A. It can execute Terraform runs on dedicated infrastructure in Terraform Cloud
- B. It doesn't show the output of a terraform apply locally
- C. It is only available to paying customers
- D. All of the above

Answer: A

Explanation:

This is how the Terraform Cloud integration differs from other state backends such as S3, Consul, etc., as it allows you to perform remote operations on Terraform Cloud's servers instead of your local machine. The other options are either incorrect or irrelevant.

NEW QUESTION 56

Which are forbidden actions when the terraform state file is locked? Choose three correct answers.

- A. Terraform state list
- B. Terraform destroy
- C. Terraform validate
- D. Terraform validate
- E. Terraform for
- F. Terraform apply

Answer: BCF

Explanation:

The terraform state file is locked when a Terraform operation that could write state is in progress. This prevents concurrent state operations that could corrupt the

state.

The forbidden actions when the state file is locked are those that could write state, such as terraform apply, terraform destroy, terraform refresh, terraform taint, terraform

untaint, terraform import, and terraform state *. The terraform validate command is also forbidden, because it requires an initialized working directory with the state file. The allowed actions when the state file is locked are those that only read state, such as terraform plan, terraform show, terraform output, and terraform console. References = [State Locking] and [Command: validate]

NEW QUESTION 59

What does state locking accomplish?

- A. Prevent accidental Prevent accident deletion of the state file
- B. Blocks Terraform commands from modifying, the state file
- C. Copies the state file from memory to disk
- D. Encrypts any credentials stored within the state file

Answer: B

Explanation:

This is what state locking accomplishes, by preventing other users from modifying the state file while a Terraform operation is in progress. This prevents conflicts and data loss.

NEW QUESTION 60

What kind of configuration block will create an infrastructure object with settings specified within the block?

- A. provider
- B. state
- C. data
- D. resource

Answer: D

Explanation:

This is the kind of configuration block that will create an infrastructure object with settings specified within the block. The other options are not used for creating infrastructure objects, but for configuring providers, accessing state data, or querying data sources.

NEW QUESTION 65

A provider configuration block is required in every Terraform configuration.

Example:

```
provider "provider_name" {  
    ...  
}
```

- A. True
- B. False

Answer: B

Explanation:

A provider configuration block is not required in every Terraform configuration. A provider configuration block can be omitted if its contents would otherwise be empty. Terraform assumes an empty default configuration for any provider that is not explicitly configured. However, some providers may require some configuration arguments (such as endpoint URLs or cloud regions) before they can be used. A provider's documentation should list which configuration arguments it expects. For providers distributed on the Terraform Registry, versioned documentation is available on each provider's page, via the ??Documentation?? link in the provider's header¹. References = [Provider Configuration]¹

NEW QUESTION 70

It is best practice to store secret data in the same version control repository as your Terraform configuration.

- A. True
- B. False

Answer: B

Explanation:

It is not a best practice to store secret data in the same version control repository as your Terraform configuration, as it could expose your sensitive information to unauthorized parties or compromise your security. You should use environment variables, vaults, or other mechanisms to store and provide secret data to Terraform.

NEW QUESTION 75

When using Terraform to deploy resources into Azure, which scenarios are true regarding state files? (Choose two.)

- A. When you change a Terraform-managed resource via the Azure Cloud Console, Terraform updates the state file to reflect the change during the next plan or apply
- B. Changing resources via the Azure Cloud Console records the change in the current state file
- C. When you change a resource via the Azure Cloud Console, Terraform records the changes in a new state file
- D. Changing resources via the Azure Cloud Console does not update current state file

Answer: AD

Explanation:

Terraform state is a representation of the infrastructure that Terraform manages. Terraform uses state to track the current status of the resources it creates and to plan future changes. However, Terraform state is not aware of any changes made to the resources outside of Terraform, such as through the Azure Cloud Console, the Azure CLI, or the Azure API. Therefore, changing resources via the Azure Cloud Console does not update the current state file, and it may cause inconsistencies or conflicts with Terraform's desired configuration. To avoid this, it is recommended to manage resources exclusively through Terraform or to use the terraform import command to bring existing resources under Terraform's control.

When you change a Terraform-managed resource via the Azure Cloud Console, Terraform does not immediately update the state file to reflect the change.

However, the next time you run terraform plan or terraform apply, Terraform will compare the state file with the actual state of the resources in Azure and detect any drifts or differences. Terraform will

then update the state file to match the current state of the resources and show you the proposed changes in the execution plan. Depending on the configuration and the change, Terraform may try to undo the change, modify the resource further, or recreate the resource entirely. To avoid unexpected or destructive changes, it is recommended to review the execution plan carefully before applying it or to use the terraform

refresh command to update the state file without applying any changes.

References = Purpose of Terraform State, Terraform State, Managing State, Importing Infrastructure, [Command: plan], [Command: apply], [Command: refresh]

NEW QUESTION 76

Which of these is true about Terraform's plugin-based architecture?

- A. Terraform can only source providers from the internet
- B. Every provider in a configuration has its own state file for its resources
- C. You can create a provider for your API if none exists
- D. All providers are part of the Terraform core binary

Answer: C

Explanation:

Terraform is built on a plugin-based architecture, enabling developers to extend Terraform by writing new plugins or compiling modified versions of existing plugins¹. Terraform plugins are executable binaries written in Go that expose an implementation for a specific service, such as a cloud resource, SaaS platform, or API². If there is no existing provider for your API, you can create one using the Terraform Plugin SDK³ or the Terraform Plugin Framework⁴. References =

•1: Plugin Development - How Terraform Works With Plugins | Terraform | HashiCorp Developer

•2: Lab: Terraform Plug-in Based Architecture - GitHub

•3: Terraform Plugin SDK - Terraform by HashiCorp

•4: HashiCorp Terraform Plugin Framework Now Generally Available

NEW QUESTION 78

You are working on some new application features and you want to spin up a copy of your production deployment to perform some quick tests. In order to avoid having to configure a new state backend, what open source Terraform feature would allow you create multiple states but still be associated with your current code?

- A. Terraform data sources
- B. Terraform local values
- C. Terraform modules
- D. Terraform workspaces
- E. None of the above

Answer: D

Explanation:

Terraform workspaces allow you to create multiple states but still be associated with your current code. Workspaces are like "environments" (e.g. staging, production) for the same configuration. You can use workspaces to spin up a copy of your production deployment for testing purposes without having to configure a new state backend. Terraform data sources, local values, and modules are not features that allow you to create multiple states. References = Workspaces and How to Use Terraform Workspaces

NEW QUESTION 81

What is a key benefit of the Terraform state file?

- A. A state file can schedule recurring infrastructure tasks
- B. A state file is a source of truth for resources provisioned with Terraform
- C. A state file is a source of truth for resources provisioned with a public cloud console
- D. A state file is the desired state expressed by the Terraform code files

Answer: B

Explanation:

This is a key benefit of the Terraform state file, as it stores and tracks the metadata and attributes of the resources that are managed by Terraform, and allows Terraform to compare the current state with the desired state expressed by your configuration files.

NEW QUESTION 85

You are creating a Terraform configuration which needs to make use of multiple providers, one for AWS and one for Datadog. Which of the following provider blocks would allow you to do this?

A)

```
terraform {  
  provider "aws" {  
    profile = var.aws_profile  
    region  = var.aws_region  
  }  
  
  provider "datadog" {  
    api_key = var.datadog_api_key  
    app_key = var.datadog_app_key  
  }  
}
```

B)

```
provider "aws" {  
  profile = var.aws_profile  
  region  = var.aws_region  
}  
  
provider "datadog" {  
  api_key = var.datadog_api_key  
  app_key = var.datadog_app_key  
}
```

C)

```
provider "aws" {  
  profile = var.aws_profile  
  region  = var.aws_region  
}  
  
provider "datadog" {  
  api_key = var.datadog_api_key  
  app_key = var.datadog_app_key  
}
```

D)

```
provider {  
  "aws" {  
    profile = var.aws_profile  
    region  = var.aws_region  
  }  
  
  "datadog" {  
    api_key = var.datadog_api_key  
    app_key = var.datadog_app_key  
  }  
}
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C**Explanation:**

Option C is the correct way to configure multiple providers in a Terraform configuration. Each provider block must have a name attribute that specifies which provider it configures². The other options are either missing the name attribute or using an invalid syntax.

NEW QUESTION 86

You are making changes to existing Terraform code to add some new infrastructure. When is the best time to run terraform validate?

- A. After you run terraform apply so you can validate your infrastructure
- B. Before you run terraform apply so you can validate your provider credentials
- C. Before you run terraform plan so you can validate your code syntax
- D. After you run terraform plan so you can validate that your state file is consistent with your infrastructure

Answer: C

Explanation:

This is the best time to run terraform validate, as it will check your code for syntax errors, typos, and missing arguments before you attempt to create a plan. The other options are either incorrect or unnecessary.

NEW QUESTION 89

Variables declared within a module are accessible outside of the module.

- A. True
- B. False

Answer: B

Explanation:

Variables declared within a module are only accessible within that module, unless they are explicitly exposed as output values¹.

NEW QUESTION 91

A developer accidentally launched a VM (virtual machine) outside of the Terraform workflow and ended up with two servers with the same name. They don't know which VM Terraform manages but do have a list of all active VM IDs.

Which of the following methods could you use to discover which instance Terraform manages?

- A. Run terraform state list to find the names of all VMs, then run terraform state show for each of them to find which VM ID Terraform manages
- B. Update the code to include outputs for the ID of all VMs, then run terraform plan to view the outputs
- C. Run terraform taint/code on all the VMs to recreate them
- D. Use terraform refresh/code to find out which IDs are already part of state

Answer: A

Explanation:

The terraform state list command lists all resources that are managed by Terraform in the current state file¹. The terraform state show command shows the attributes of a single resource in the state file². By using these two commands, you can compare the VM IDs in your list with the ones in the state file and identify which one is managed by Terraform.

NEW QUESTION 96

How does Terraform manage most dependencies between resources?

- A. Terraform will automatically manage most resource dependencies
- B. Using the depends_on parameter
- C. By defining dependencies as modules and including them in a particular order
- D. The order that resources appear in Terraform configuration indicates dependencies

Answer: A

Explanation:

This is how Terraform manages most dependencies between resources, by using the references between them in the configuration files. For example, if resource A depends on resource B, Terraform will create resource B first and then pass its attributes to resource A.

NEW QUESTION 99

Where can Terraform not load a provider from?

- A. Plugins directory
- B. Provider plugin cache
- C. Official HashCorp Distribution on releases.hashicorp.com
- D. Source code

Answer: D

Explanation:

This is where Terraform cannot load a provider from, as it requires a compiled binary file that implements the provider protocol. You can load a provider from a plugins directory, a provider plugin cache, or the official HashiCorp distribution on releases.hashicorp.com.

NEW QUESTION 103

Terraform variable names are saved in the state file.

- A. True
- B. False

Answer: B

Explanation:

Terraform variable names are not saved in the state file, only their values are. The state file only stores the attributes of the resources and data sources that are managed by Terraform, not the variables that are used to configure them.

NEW QUESTION 107

Which backend does the Terraform CU use by default?

- A. Depends on the cloud provider configured
- B. HTTP
- C. Remote
- D. Terraform Cloud
- E. Local

Answer: E

Explanation:

This is the backend that the Terraform CLI uses by default, unless you specify a different backend in your configuration. The local backend stores the state file in a local file named terraform.tfstate, which can be used to track and manage the state of your infrastructure.

NEW QUESTION 112

Where in your Terraform configuration do you specify a state backend?

- A. The resource block
- B. The data source block
- C. The terraform block
- D. The provider block

Answer: C

Explanation:

In Terraform, the backend configuration, which includes details about where and how state is stored, is specified within the terraform block of your configuration. This block is the correct place to define the backend type and its configuration parameters, such as the location of the state file for a local backend or the bucket details for a remote backend like S3. References = This practice is outlined in Terraform's core documentation, which provides examples and guidelines on how to configure various aspects of Terraform's behavior, including state backends .

NEW QUESTION 115

When should you run terraform init?

- A. Every time you run terraform apply
- B. Before you start coding a new Terraform project
- C. After you run terraform plan for the time in a new terraform project and before you run terraform apply
- D. After you start coding a new terraform project and before you run terraform plan for the first time.

Answer: D

Explanation:

You should run terraform init after you start coding a new Terraform project and before you run terraform plan for the first time. This command will initialize the working directory by downloading the required providers and modules, creating the initial state file, and performing other necessary tasks. References = : Initialize a Terraform Project

NEW QUESTION 118

Why does this backend configuration not follow best practices?


```
terraform {  
  backend "s3" {  
    bucket      = "terraform-state-prod"  
    key         = "network/terraform.tfstate"  
    region      = "us-east-1"  
    access_key   = "AKIAIOSFODNN7EXAMPLE"  
    secret_key   = "wJalrXUtnFEMI/K7MDENG/bPxrFiCYEXAMPLEKEY"  
  }  
  
  required_providers {  
    aws = {  
      source = "hashicorp/aws"  
      version = "~> 3.38"  
    }  
  }  
  
  required_version = ">= 0.15"  
}
```

- A. An alias meta-argument should be included in backend blocks whenever possible
- B. You should use the local enhanced storage backend whenever possible
- C. You should not store credentials in Terraform configuration
- D. The backend configuration should contain multiple credentials so that more than one user can execute terraform plan and terraform apply

Answer: C

Explanation:

This is a bad practice, as it exposes your credentials to anyone who can access your configuration files or state files. You should use environment variables, credential files, or other mechanisms to provide credentials to Terraform.

NEW QUESTION 121

You're writing a Terraform configuration that needs to read input from a local file called id_rsa.pub . Which built-in Terraform function can you use to import the file's contents as a string?

- A. file("id_rsa.pub")
- B. templatefile("id_rsa.pub")
- C. filebase64("id_rsa.pub")
- D. fileset<"id_rsa.pub")

Answer: A

Explanation:

To import the contents of a local file as a string in Terraform, you can use the built-in file function. By specifying file("id_rsa.pub"), Terraform reads the contents of the id_rsa.pub file and uses it as a string within your Terraform configuration. This function is particularly useful for scenarios where you need to include file data directly into your configuration, such as including an SSH public key for provisioning cloud instances. References = This information is a standard part of Terraform's functionality with built-in functions, as outlined in Terraform's official documentation and commonly used in various Terraform configurations.

NEW QUESTION 124

If you update the version constraint in your Terraform configuration, Terraform will update your lock file the next time you run terraform init.

- A. True
- B. False

Answer: A

Explanation:

If you update the version constraint in your Terraform configuration, Terraform will update your lock file the next time you run terraform init. This will ensure that you use the same provider versions across different machines and runs.

NEW QUESTION 129

Which of the following should you put into the required_providers block?

- A. version >= 3.1
- B. version = ??>= 3.1??
- C. version ~> 3.1

Answer: B

Explanation:

The required_providers block is used to specify the provider versions that the configuration can work with. The version argument accepts a version constraint string, which must be enclosed in double quotes. The version constraint string can use operators such as >=, ~>, =, etc. to specify the minimum, maximum, or exact version of the provider. For example, version = ">= 3.1" means that the configuration can work with any provider version that is 3.1 or higher. References = [Provider Requirements] and [Version Constraints]

NEW QUESTION 130

You have declared a variable called var.list which is a list of objects that all have an attribute id . Which options will produce a list of the IDs? Choose two correct answers.

- A. [var.list [*] , id]
- B. [for o in var.list : o.id]
- C. var.list[*].id
- D. { for o in var.llst : o => o.id }

Answer: BC

Explanation:

These are two ways to produce a list of the IDs from a list of objects that have an attribute id, using either a for expression or a splat expression syntax.

NEW QUESTION 131

One remote backend configuration always maps to a single remote workspace.

- A. True
- B. False

Answer: A

Explanation:

The remote backend can work with either a single remote Terraform Cloud workspace, or with multiple similarly-named remote workspaces (like networking-dev and networking-prod). The workspaces block of the backend configuration determines which mode it uses. To use a single remote Terraform Cloud workspace, set workspaces.name to the remote workspace's full name (like networking-prod). To use multiple remote workspaces, set workspaces.prefix to a prefix used in all of the desired remote workspace names. For example, set prefix = "networking-" to use Terraform cloud workspaces with names like networking-dev and networking-prod. This is helpful when mapping multiple Terraform CLI workspaces used in a single Terraform configuration to multiple Terraform Cloud workspaces³. However, one remote backend configuration always maps to a single remote workspace, either by name or by prefix. You cannot use both name and prefix in the same backend configuration, or omit both. Doing so will result in a configuration error³. References = [Backend Type: remote]³

NEW QUESTION 134

Which of the following is not a benefit of adopting infrastructure as code?

- A. Versioning
- B. A Graphical User Interface
- C. Reusability of code
- D. Automation

Answer: B

Explanation:

Infrastructure as Code (IaC) provides several benefits, including the ability to version control infrastructure, reuse code, and automate infrastructure management. However, IaC is typically associated with declarative configuration files and does not inherently provide a graphical user interface (GUI). A GUI is a feature that may be provided by specific tools or platforms built on top of IaC principles but is not a direct benefit of IaC itself¹.
References = The benefits of IaC can be verified from the official HashiCorp documentation on "What is Infrastructure as Code with Terraform?" provided by HashiCorp Developer¹.

NEW QUESTION 138

When using a remote backend or terraform Cloud integration, where does Terraform save resource state?

- A. In an environment variable
- B. On the disk
- C. In the remote backend or Terraform Cloud
- D. In memory

Answer: C

Explanation:

This is where Terraform saves resource state when using a remote backend or Terraform Cloud integration, as it allows you to store and manage your state file in a remote location, such as a cloud storage service or Terraform Cloud's servers. This enables collaboration, security, and scalability for your Terraform infrastructure.

NEW QUESTION 139

Which of the following is not true of Terraform providers?

- A. An individual person can write a Terraform Provider
- B. A community of users can maintain a provider
- C. HashiCorp maintains some providers
- D. Cloud providers and infrastructure vendors can write, maintain, or collaborate on Terraform
- E. providers

F. None of the above

Answer: F

Explanation:

All of the statements are true of Terraform providers. Terraform providers are plugins that enable Terraform to interact with various APIs and services¹. Anyone can write a Terraform provider, either as an individual or as part of a community². HashiCorp maintains some providers, such as the AWS, Azure, and Google Cloud providers³. Cloud providers and infrastructure vendors can also write, maintain, or collaborate on Terraform providers, such as the VMware, Oracle, and Alibaba Cloud providers. References =

- 1: Providers - Configuration Language | Terraform | HashiCorp Developer
- 2: Plugin Development - How Terraform Works With Plugins | Terraform | HashiCorp Developer
- 3: Terraform Registry
- : Terraform Registry

NEW QUESTION 140

Which command add existing resources into Terraform state?

- A. Terraform init
- B. Terraform plan
- C. Terraform refresh
- D. Terraform import
- E. All of these

Answer: D

Explanation:

This is the command that can add existing resources into Terraform state, by matching them with the corresponding configuration blocks in your files.

NEW QUESTION 143

You can reference a resource created with for_each using a Splat (*) expression.

- A. True
- B. False

Answer: B

Explanation:

You cannot reference a resource created with for_each using a splat (*) expression, as it will not work with resources that have non-numeric keys. You need to use a for expression instead to iterate over the resource instances.

NEW QUESTION 145

Which of the following commands would you use to access all of the attributes and details of a resource managed by Terraform?

- A. terraform state list ??provider_type.name??
- B. terraform state show ??provider_type.name??
- C. terraform get ??provider_type.name??
- D. terraform state list

Answer: B

Explanation:

The terraform state show command allows you to access all of the attributes and details of a resource managed by Terraform. You can use the resource address (e.g. provider_type.name) as an argument to show the information about a specific resource. The terraform state list command only shows the list of resources in the state, not their attributes. The terraform get command downloads and installs modules needed for the configuration. It does not show any information about resources. References = [Command: state show] and [Command: state list]

NEW QUESTION 147

Select the command that doesn't cause Terraform to refresh its state.

- A. Terraform destroy
- B. Terraform apply
- C. Terraform plan
- D. Terraform state list

Answer: D

Explanation:

This is the command that does not cause Terraform to refresh its state, as it only lists the resources that are currently managed by Terraform in the state file. The other commands will refresh the state file before performing their operations, unless you use the -refresh=false flag.

NEW QUESTION 148

Which provider authentication method prevents credentials from being stored in the state file?

- A. Using environment variables
- B. Specifying the login credentials in the provider block
- C. Setting credentials as Terraform variables
- D. None of the above

Answer: D

Explanation:

None of the above methods prevent credentials from being stored in the state file. Terraform stores the provider configuration in the state file, which may include sensitive information such as credentials. This is a potential security risk and should be avoided if possible. To prevent credentials from being stored in the state file, you can use one of the following methods:

? Use environment variables to pass credentials to the provider. This way, the credentials are not part of the provider configuration and are not stored in the state file. However, this method may not work for some providers that require credentials to be set in the provider block.

? Use dynamic credentials to authenticate with your cloud provider. This way,

Terraform Cloud or Enterprise will request temporary credentials from your cloud provider for each run and use them to provision your resources. The credentials are not stored in the state file and are revoked after the run is completed. This method is supported for AWS, Google Cloud Platform, Azure, and

Vault. References = : [Sensitive Values in State] : Authenticate providers with dynamic credentials

NEW QUESTION 151

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