

[Custom View Settings](#)

Topic 1 - Single Topic

Question #1

Topic 1

The terraform.tfstate file always matches your currently built infrastructure.

- A. True
- B. False

Correct Answer: B

Reference:

<https://www.terraform.io/docs/language/state/index.html>

This state is stored by default in a local file named "terraform.tfstate", but it can also be stored remotely, which works better in a team environment.

Terraform uses this local state to create plans and make changes to your infrastructure. Prior to any operation, Terraform does a [refresh](#) to update the state with the real infrastructure.

The primary purpose of Terraform state is to store bindings between objects in a remote system and resource instances declared in your configuration. When Terraform creates a remote object in response to a change of configuration, it will record the identity of that remote object against a particular resource instance, and then potentially update or delete that object in response to future configuration changes.

Community vote distribution

B (96%)

4%

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

- A. True
- B. False

Correct Answer: A

Reference:

<https://www.terraform.io/docs/language/settings/backends/remote.html>

Workspaces

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`).

Community vote distribution

B (85%)

A (15%)

How is the Terraform remote backend different than other state backends such as S3, Consul, etc.?

- A. It can execute Terraform runs on dedicated infrastructure on premises or 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

Correct Answer: A

If you and your team are using Terraform to manage meaningful infrastructure, we recommend using the remote backend with Terraform Cloud or Terraform Enterprise.

Reference:

<https://www.terraform.io/docs/language/settings/backends/index.html>

Community vote distribution

A (100%)

What is the workflow for deploying new infrastructure with Terraform?

- A. terraform plan to import the current infrastructure to the state file, make code changes, and terraform apply to update the infrastructure.
- B. Write a Terraform configuration, run terraform show to view proposed changes, and terraform apply to create new infrastructure.
- C. terraform import to import the current infrastructure to the state file, make code changes, and terraform apply to update the infrastructure.
- D. Write a Terraform configuration, run terraform init, run terraform plan to view planned infrastructure changes, and terraform apply to create new infrastructure.

Correct Answer: D

Community vote distribution

D (100%)

A provider configuration block is required in every Terraform configuration.

Example:

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

- A. True
- B. False

Correct Answer: A

Reference:

<https://github.com/hashicorp/terraform/issues/17928>

Community vote distribution

B (68%)

A (32%)

You run a local-exec provisioner in a null resource called null_resource.run_script and realize that you need to rerun the script.

Which of the following commands would you use first?

- A. terraform taint null_resource.run_script
- B. terraform apply -target=null_resource.run_script
- C. terraform validate null_resource.run_script
- D. terraform plan -target=null_resource.run_script

Correct Answer: A

Community vote distribution

A (72%)

B (21%)

7%

Which provisioner invokes a process on the resource created by Terraform?

- A. remote-exec
- B. null-exec
- C. local-exec
- D. file

Correct Answer: A

The remote-exec provisioner invokes a script on a remote resource after it is created.

Reference:

<https://www.terraform.io/docs/language/resources/provisioners/remote-exec.html>

Community vote distribution

A (100%)

Which of the following is not true of Terraform providers?

- A. Providers can be written by individuals
- B. Providers can be maintained by a community of users
- C. Some providers are maintained by HashiCorp
- D. Major cloud vendors and non-cloud vendors can write, maintain, or collaborate on Terraform providers
- E. None of the above

Correct Answer: D

Reference:

https://jayendrapatil.com/terraform-cheat-sheet/#Terraform_Read_and_write_configuration

Community vote distribution

E (95%)

5%

What command does Terraform require the first time you run it within a configuration directory?

- A. terraform import
- B. terraform init
- C. terraform plan
- D. terraform workspace

Correct Answer: B

terraform init command is used to initialize a working directory containing Terraform configuration files.

Reference:

<https://www.terraform.io/docs/cli/commands/init.html>

Community vote distribution

B (100%)

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. Run terraform output ip_address to view the result
- B. 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
- C. Run terraform state list to find the name of the resource, then terraform state show to find the attributes including public IP address
- D. Run terraform destroy then terraform apply and look for the IP address in stdout

Correct Answer: A

Reference:

<https://www.terraform.io/docs/cli/commands/output.html>

Community vote distribution

C (100%)

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

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

Correct Answer: ABD

Reference:

<https://docs.microsoft.com/en-us/azure/devops/learn/what-is-infrastructure-as-code#:~:text=Idempotence%20is%20a%20principle%20of,of%20the%20environment's%20starting%20state>

Community vote distribution

B (92%)

8%

Terraform variables and outputs that set the "description" argument will store that description in the state file.

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (100%)

What is the provider for this fictitious resource?

```
resource "aws_vpc" "main" {  
    name = "test"  
}
```

- A. vpc
- B. main
- C. aws
- D. test

Correct Answer: C

Reference:

<https://docs.aws.amazon.com/clouformation-cli/latest/userguide/resource-types.html>

Community vote distribution

C (100%)

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

Correct Answer: B

Community vote distribution

A (54%)

B (44%)

What is not processed when running a terraform refresh?

- A. State file
- B. Configuration file
- C. Credentials
- D. Cloud provider

Correct Answer: CD

Reference:

<https://www.terraform.io/docs/cli/commands/refresh.html>

Community vote distribution

B (98%)

What information does the public Terraform Module Registry automatically expose about published modules?

- A. Required input variables
- B. Optional inputs variables and default values
- C. Outputs
- D. All of the above
- E. None of the above

Correct Answer: E

Reference:

<https://www.terraform.io/docs/registry/modules/publish.html>

Private Registries

JUMP TO SECTION ▾

The registry at registry.terraform.io only hosts public modules, but most organizations have some modules that can't, shouldn't, or don't need to be public.

You can load private modules [directly from version control and other sources](#), but those sources don't support [version constraints](#) or a browsable marketplace of modules, both of which are important for enabling a producers-and-consumers content model in a large organization.

If your organization is specialized enough that teams frequently use modules created by other teams, you will benefit from a private module registry.

Community vote distribution

D (98%)

If a module uses a local values, you can expose that value with a terraform output.

- A. True
- B. False

Correct Answer: A

Output values are like function return values.

Reference:

<https://www.terraform.io/docs/language/values/locals.html>
<https://www.terraform.io/docs/language/values/outputs.html>

Community vote distribution

A (100%)

You should store secret data in the same version control repository as your Terraform configuration.

- A. True
- B. False

Correct Answer: B

Reference:

<https://blog.gruntwork.io/a-comprehensive-guide-to-managing-secrets-in-your-terraform-code-1d586955ace1>

Community vote distribution

B (100%)

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

- A. split
- B. join
- C. slice
- D. chomp

Correct Answer: D

Reference:

<https://www.terraform.io/docs/language/functions/chomp.html>

`chomp` removes newline characters at the end of a string.

This can be useful if, for example, the string was read from a file that has a newline character at the end.

Examples

```
> chomp("hello\n")
hello
> chomp("hello\r\n")
hello
> chomp("hello\n\n")
hello
```

[Copy](#)

Community vote distribution

C (93%)

7%

You have provisioned some virtual machines (VMs) on Google Cloud Platform (GCP) using the gcloud command line tool. However, you are standardizing with Terraform and want to manage these VMs using Terraform instead. What are the two things you must do to achieve this? (Choose two.)

- A. Provision new VMs using Terraform with the same VM names
- B. Use the terraform import command for the existing VMs
- C. Write Terraform configuration for the existing VMs
- D. Run the terraform import-gcp command

Correct Answer: BD

The terraform import command is used to import existing infrastructure.

Import existing Google Cloud resources into Terraform with Terraformer.

Reference:

<https://www.terraform.io/docs/cli/import/usage.html>

<https://cloud.google.com/docs/terraform>

Community vote distribution

BC (100%)

You have recently started a new job at a retailer as an engineer. As part of this new role, you have been tasked with evaluating multiple outages that occurred during peak shopping time during the holiday season. Your investigation found that the team is manually deploying new compute instances and configuring each compute instance manually. This has led to inconsistent configuration between each compute instance.

How would you solve this using infrastructure as code?

- A. Implement a ticketing workflow that makes engineers submit a ticket before manually provisioning and configuring a resource
- B. Implement a checklist that engineers can follow when configuring compute instances
- C. Replace the compute instance type with a larger version to reduce the number of required deployments
- D. Implement a provisioning pipeline that deploys infrastructure configurations committed to your version control system following code reviews

Correct Answer: A

Community vote distribution

D (99%)

terraform init initializes a sample main.tf file in the current directory.

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (72%)

A (28%)

Which two steps are required to provision new infrastructure in the Terraform workflow? (Choose two.)

- A. Destroy
- B. Apply
- C. Import
- D. Init
- E. Validate

Correct Answer: *BD*

Reference:

<https://www.terraform.io/guides/core-workflow.html>

Community vote distribution

BD (100%)

Why would you use the terraform taint command?

- A. When you want to force Terraform to destroy a resource on the next apply
- B. When you want to force Terraform to destroy and recreate a resource on the next apply
- C. When you want Terraform to ignore a resource on the next apply
- D. When you want Terraform to destroy all the infrastructure in your workspace

Correct Answer: *B*

The terraform taint command manually marks a Terraform-managed resource as tainted, forcing it to be destroyed and recreated on the next apply.

Reference:

<https://www.terraform.io/docs/cli/commands/taint.html>

Community vote distribution

B (100%)

Terraform requires the Go runtime as a prerequisite for installation.

- A. True
- B. False

Correct Answer: B

Reference:

<https://www.terraform.io/docs/extend/guides/v1-upgrade-guide.html>

As of September 2019, Terraform provider developers importing the Go module

`github.com/hashicorp/terraform`, known as Terraform Core, should switch to
`github.com/hashicorp/terraform-plugin-sdk`, the Terraform Plugin SDK, instead.

Why a separate module?

While the `helper/*` and other packages in Terraform Core has served us well, in order for provider development to evolve, the SDK needed to break out into its own repository.

Terraform Core's versioning has been oriented towards practitioners. With the "unofficial" SDK existing in the core repository, the SDK becomes tied to Core releases and cannot follow semantic versioning. The new standalone SDK github.com/hashicorp/terraform-plugin-sdk follows semantic versioning starting with v1.0.0.

We will use the term "legacy Terraform plugin SDK" when referring to the version of Terraform Core imported and used by providers.

Community vote distribution

B (100%)

When should you use the force-unlock command?

- A. You see a status message that you cannot acquire the lock
- B. You have a high priority change
- C. Automatic unlocking failed
- D. You apply failed due to a state lock

Correct Answer: C

Manually unlock the state for the defined configuration.

Reference:

<https://www.terraform.io/docs/cli/commands/force-unlock.html>

Community vote distribution

C (100%)

Terraform can import modules from a number of sources. Which of the following is not a valid source?

- A. FTP server
- B. GitHub repository
- C. Local path
- D. Terraform Module Registry

Correct Answer: A

Community vote distribution

A (100%)

Which of the following is available only in Terraform Enterprise or Cloud workspaces and not in Terraform CLI?

- A. Secure variable storage
- B. Support for multiple cloud providers
- C. Dry runs with terraform plan
- D. Using the workspace as a data source

Correct Answer: A

Community vote distribution

A (91%)

9%

`terraform validate` validates the syntax of Terraform files.

- A. True
- B. False

Correct Answer: A

The `terraform validate` command validates the syntax and arguments of the Terraform configuration files.

Reference:

<https://www.terraform.io/docs/cli/code/index.html>

Community vote distribution

A (100%)

You have used Terraform to create an ephemeral development environment in the cloud and are now ready to destroy all the infrastructure described by your Terraform configuration. To be safe, you would like to first see all the infrastructure that will be deleted by Terraform. Which command should you use to show all of the resources that will be deleted? (Choose two.)

- A. Run `terraform plan -destroy`.
- B. This is not possible. You can only show resources that will be created.
- C. Run `terraform state rm *`.
- D. Run `terraform destroy` and it will first output all the resources that will be deleted before prompting for approval.

Correct Answer: CD

Reference:

<https://www.terraform.io/docs/cli/commands/state/rm.html>

Command: state rm

JUMP TO SECTION ▾

The main function of `Terraform state` is to track the bindings between resource instance addresses in your configuration and the remote objects they represent. Normally Terraform automatically updates the state in response to actions taken when applying a plan, such as removing a binding for a remote object that has now been deleted.

You can use `terraform state rm` in the less common situation where you wish to remove a binding to an existing remote object without first destroying it, which will effectively make Terraform "forget" the object while it continues to exist in the remote system.

Community vote distribution

AD (94%) 6%

Which of the following is the correct way to pass the value in the variable `num_servers` into a module with the input `servers`?

- A. `servers = num_servers`
- B. `servers = variable.num_servers`
- C. `servers = var(num_servers)`
- D. `servers = var.num_servers`

Correct Answer: A

Community vote distribution

D (100%)

A Terraform provisioner must be nested inside a resource configuration block.

- A. True
- B. False

Correct Answer: A

Most provisioners require access to the remote resource via SSH or WinRM, and expect a nested connection block with details about how to connect.

Reference:

<https://www.terraform.io/docs/language/resources/provisioners/connection.html>

Community vote distribution

A (65%) B (35%)

Terraform can run on Windows or Linux, but it requires a Server version of the Windows operating system.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

What does the default "local" Terraform backend store?

- A. tfplan files
- B. Terraform binary
- C. Provider plugins
- D. State file

Correct Answer: D

The local backend stores state on the local filesystem, locks that state using system APIs, and performs operations locally.

Reference:

<https://www.terraform.io/docs/language/settings/backends/local.html>

Community vote distribution

D (100%)

You have multiple team members collaborating on infrastructure as code (IaC) using Terraform, and want to apply formatting standards for readability.

How can you format Terraform HCL (HashiCorp Configuration Language) code according to standard Terraform style convention?

- A. Run the `terraform fmt` command during the code linting phase of your CI/CD process
- B. Designate one person in each team to review and format everyone's code
- C. Manually apply two spaces indentation and align equal sign "=" characters in every Terraform file (*.tf)
- D. Write a shell script to transform Terraform files using tools such as AWK, Python, and sed

Correct Answer: C

- ☞ Indent two spaces for each nesting level.
- ☞ When multiple arguments with single-line values appear on consecutive lines at the same nesting level, align their equals signs.

Reference:

<https://www.terraform.io/docs/language/syntax/style.html>

Community vote distribution

A (100%)

What value does the Terraform Cloud/Terraform Enterprise private module registry provide over the public Terraform Module Registry?

- A. The ability to share modules with public Terraform users and members of Terraform Enterprise Organizations
- B. The ability to tag modules by version or release
- C. The ability to restrict modules to members of Terraform Cloud or Enterprise organizations
- D. The ability to share modules publicly with any user of Terraform

Correct Answer: D

Terraform Registry is an index of modules shared publicly using this protocol. This public registry is the easiest way to get started with Terraform and find modules created by others in the community.

Reference:

<https://www.terraform.io/docs/language/modules/sources.html>

Community vote distribution

C (100%)

Which task does terraform init not perform?

- A. Sources all providers present in the configuration and ensures they are downloaded and available locally
- B. Connects to the backend
- C. Sources any modules and copies the configuration locally
- D. Validates all required variables are present

Correct Answer: D

Reference:

<https://www.terraform.io/docs/cli/commands/init.html>

Usage

Usage: `terraform init [options]`

This command performs several different initialization steps in order to prepare the current working directory for use with Terraform. More details on these are in the sections below, but in most cases it is not necessary to worry about these individual steps.

This command is always safe to run multiple times, to bring the working directory up to date with changes in the configuration. Though subsequent runs may give errors, this command will never delete your existing configuration or state.

Community vote distribution

D (96%) 4%

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.)

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

Correct Answer: AB

Community vote distribution

BD (90%) 10%

Which argument(s) is (are) required when declaring a Terraform variable?

- A. type
- B. default
- C. description
- D. All of the above
- E. None of the above

Correct Answer: B

The variable declaration can also include a default argument.

Reference:

<https://www.terraform.io/docs/language/values/variables.html>

Community vote distribution

E (94%) 6%

When using a module block to reference a module stored on the public Terraform Module Registry such as:

```
module "consul" {  
    source = "hashicorp/consul/aws"  
}
```

How do you specify version 1.0.0?

- A. Modules stored on the public Terraform Module Registry do not support versioning
- B. Append ?ref=v1.0.0 argument to the source path
- C. Add version = "1.0.0" attribute to module block
- D. Nothing – modules stored on the public Terraform Module Registry always default to version 1.0.0

Correct Answer: C

Community vote distribution

C (100%)

What features does the hosted service Terraform Cloud provide? (Choose two.)

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

Correct Answer: BC

Reference:

<https://www.terraform.io/docs/enterprise/admin/automated-recovery.html> <https://www.terraform.io/docs/language/state/remote.html>

Remote State

JUMP TO SECTION ▾

By default, Terraform stores state locally in a file named `terraform.tfstate`. When working with Terraform in a team, use of a local file makes Terraform usage complicated because each user must make sure they always have the latest state data before running Terraform and make sure that nobody else runs Terraform at the same time.

With *remote state*, Terraform writes the state data to a remote data store, which can then be shared between all members of a team. Terraform supports storing state in [Terraform Cloud](#), [HashiCorp Consul](#), Amazon S3, Azure Blob Storage, Google Cloud Storage, Alibaba Cloud OSS, and more.

Remote state is implemented by a [backend](#) or by Terraform Cloud, both of which you can configure in your configuration's root module.

Community vote distribution

CD (100%)

Where does the Terraform local backend store its state?

- A. In the /tmp directory
- B. In the `terraform` file
- C. In the `terraform.tfstate` file
- D. In the user's `terraform.state` file

Correct Answer: C

The local backend stores state on the local filesystem, locks that state using system APIs, and performs operations locally.

Reference:

<https://www.terraform.io/docs/language/settings/backends/local.html>

Community vote distribution

C (100%)

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

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

Correct Answer: C

Reference:

<https://secrethub.io/blog/secret-management-for-terraform/>

Community vote distribution

D (76%) 10% 10%

What is one disadvantage of using dynamic blocks in Terraform?

- A. They cannot be used to loop through a list of values
- B. Dynamic blocks can construct repeatable nested blocks
- C. They make configuration harder to read and understand
- D. Terraform will run more slowly

Correct Answer: A

Reference:

<https://github.com/hashicorp/terraform/issues/19291>

Community vote distribution

C (100%)

Only the user that generated a plan may apply it.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (96%) 4%

Examine the following Terraform configuration, which uses the data source for an AWS AMI.

What value should you enter for the ami argument in the AWS instance resource?

```
data "aws_ami" "ubuntu" {  
    ...  
}  
  
resource "aws_instance" "web" {  
    ami = _____  
    instance_type = "t2.micro"  
  
    tags = {  
        Name = "HelloWorld"  
    }  
}
```

- A. aws_ami.ubuntu
- B. data.aws_ami.ubuntu
- C. data.aws_ami.ubuntu.id
- D. aws_ami.ubuntu.id

Correct Answer: C

```
resource "aws_instance" "web" {  
    ami = data.aws_ami.ubuntu.id  
}
```

Reference:
<https://registry.terraform.io/providers/hashicorp/aws/latest/docs/resources/instance>

Community vote distribution

C (100%)

FILL BLANK -

You need to specify a dependency manually.

What resource meta-parameter can you use to make sure Terraform respects the dependency?

Type your answer in the field provided. The text field is not case-sensitive and all variations of the correct answer are accepted.

Correct Answer: *depends_on*

You have never used Terraform before and would like to test it out using a shared team account for a cloud provider. The shared team account already contains

15 virtual machines (VM). You develop a Terraform configuration containing one VM, perform terraform apply, and see that your VM was created successfully.

What should you do to delete the newly-created VM with Terraform?

- A. The Terraform state file contains all 16 VMs in the team account. Execute terraform destroy and select the newly-created VM.
- B. The Terraform state file only contains the one new VM. Execute terraform destroy.
- C. Delete the Terraform state file and execute Terraform apply.
- D. Delete the VM using the cloud provider console and terraform apply to apply the changes to the Terraform state file.

Correct Answer: B

Community vote distribution

B (88%) 13%

What is the name assigned by Terraform to reference this resource?

```
resource "azurerm_resource_group" "dev" {
    name = "test"
    location = "westus"
}
```

- A. dev
- B. azurerm_resource_group
- C. azurerm
- D. test

Correct Answer: A

Community vote distribution

A (83%) Other

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

- A. True
- B. False

Correct Answer: A

Reference:

<https://www.terraform.io/docs/internals/debugging.html>

Debugging Terraform

Hands-on: Try the [Create Dynamic Expressions](#) tutorial on HashiCorp Learn.

Terraform has detailed logs which can be enabled by setting the `TF_LOG` environment variable to any value. This will cause detailed logs to appear on stderr.

You can set `TF_LOG` to one of the log levels `TRACE`, `DEBUG`, `INFO`, `WARN` or `ERROR` to change the verbosity of the logs.

Setting `TF_LOG` to `JSON` outputs logs at the `TRACE` level or higher, and uses a parseable JSON encoding as the formatting.

Community vote distribution

B (82%)

A (18%)

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

- A. The `terraform` block
- B. The `resource` block
- C. The `provider` block
- D. The `datasource` block

Correct Answer: A

Backends are configured with a nested `backend` block within the top-level `terraform` block.

Reference:

<https://www.terraform.io/docs/language/settings/backends/configuration.html>

Community vote distribution

A (100%)

In Terraform 0.13 and above, outside of the required_providers block, Terraform configurations always refer to providers by their local names.

- A. True
- B. False

Correct Answer: A

Outside of the required_providers block, Terraform configurations always refer to providers by their local names.

Reference:

<https://www.terraform.io/docs/language/providers/requirements.html>

Community vote distribution

A (92%)	8%
---------	----

What command should you run to display all workspaces for the current configuration?

- A. terraform workspace
- B. terraform workspace show
- C. terraform workspace list
- D. terraform show workspace

Correct Answer: C

terraform workspace list

The command will list all existing workspaces.

Reference:

<https://www.terraform.io/docs/cli/commands/workspace/list.html>

Community vote distribution

C (100%)

Terraform providers are always installed from the Internet.

- A. True
- B. False

Correct Answer: B

Terraform configurations must declare which providers they require, so that Terraform can install and use them.

Reference:

<https://www.terraform.io/docs/language/providers/configuration.html>

Community vote distribution

B (93%)	7%
---------	----

Which of these is the best practice to protect sensitive values in state files?

- A. Blockchain
- B. Secure Sockets Layer (SSL)
- C. Enhanced remote backends
- D. Signed Terraform providers

Correct Answer: C

Use of remote backends and especially the availability of Terraform Cloud, there are now a variety of backends that will encrypt state at rest and will not store the state in cleartext on machines running.

Reference:

<https://www.terraform.io/docs/extend/best-practices/sensitive-state.html>

Community vote distribution

C (100%)

When does terraform apply reflect changes in the cloud environment?

- A. Immediately
- B. However long it takes the resource provider to fulfill the request
- C. After updating the state file
- D. Based on the value provided to the -refresh command line argument
- E. None of the above

Correct Answer: B

Community vote distribution

B (92%)

8%

How would you reference the "name" value of the second instance of this fictitious resource?

```
resource "aws_instance" "web" {
  count = 2
  name  = "terraform-${count.index}"
}
```

- A. element(aws_instance.web, 2)
- B. aws_instance.web[1].name
- C. aws_instance.web[1]
- D. aws_instance.web[2].name
- E. aws_instance.web.*.name

Correct Answer: A

Reference:

<https://www.terraform.io/docs/configuration-0-11/interpolation.html>

Community vote distribution

B (97%)

A Terraform provider is not responsible for:

- A. Understanding API interactions with some service
- B. Provisioning infrastructure in multiple clouds
- C. Exposing resources and data sources based on an API
- D. Managing actions to take based on resource differences

Correct Answer: D

Reference:

<https://www.terraform.io/docs/configuration-0-11/providers.html>

Providers are responsible in Terraform for managing the lifecycle of a **resource**: create, read, update, delete.

Most providers require some sort of configuration to provide authentication information, endpoint URLs, etc. Where explicit configuration is required, a **provider** block is used within the configuration as illustrated in the following sections.

By default, resources are matched with provider configurations by matching the start of the resource name. For example, a resource of type **vsphere_virtual_machine** is associated with a provider called **vsphere**.

Community vote distribution

D (45%)

B (44%)

9%

Terraform provisioners can be added to any resource block.

- A. True
- B. False

Correct Answer: A

Reference:

<https://www.terraform.io/docs/language/resources/provisioners/syntax.html>

Terraform includes the concept of provisioners as a measure of pragmatism, knowing that there will always be certain behaviors that can't be directly represented in Terraform's declarative model.

However, they also add a considerable amount of complexity and uncertainty to Terraform usage. Firstly, Terraform cannot model the actions of provisioners as part of a plan because they can in principle take any action. Secondly, successful use of provisioners requires coordinating many more details than Terraform usage usually requires: direct network access to your servers, issuing Terraform credentials to log in, making sure that all of the necessary external software is installed, etc.

The following sections describe some situations which can be solved with provisioners in principle, but where better solutions are also available. We do not recommend using provisioners for any of the use-cases described in the following sections.

Even if your specific use-case is not described in the following sections, we still recommend attempting to solve it using other techniques first, and use provisioners only if there is no other option.

Community vote distribution

A (87%)

13%

What is terraform refresh intended to detect?

- A. Terraform configuration code changes
- B. Empty state files
- C. State file drift
- D. Corrupt state files

Correct Answer: C

Reference:

<https://www.hashicorp.com/blog/detecting-and-managing-drift-with-terraform>

Prior to a plan or apply operation, Terraform does a refresh to update the state file with real-world status. You can also do a refresh any time with `terraform refresh`:

```
$ terraform refresh
aws_instance.example: Refreshing state... (ID: i-011a9893eff09ede1)
```

What Terraform is doing here is reconciling the resources tracked by the state file with the real world. It does this by querying your infrastructure providers to find out what's actually running and the current configuration, and updating the state file with this new information. Terraform is designed to co-exist with other tools as well as manually provisioned resources and so it only refreshes resources under its management.

The output for a refresh is minimal. Terraform lists each resource it is refreshing along with its internal ID. Running `refresh` does not modify infrastructure, but does modify the state file. If the state has drifted from the last time Terraform ran, `refresh` allows that drift to be detected.

Community vote distribution

C (100%)

FILL BLANK -

Which flag would you add to terraform plan to save the execution plan to a file?

Type your answer in the field provided. The text field is not case-sensitive and all variations of the correct answer are accepted.

Correct Answer: `-out=FILENAME`

Reference:

<https://www.terraform.io/docs/cli/commands/plan.html>

You can use the optional `-out=FILE` option to save the generated plan to a file on disk, which you can later execute by passing the file to `terraform apply` as an extra argument. This two-step workflow is primarily intended for when running Terraform in automation.

If you run `terraform plan` without the `-out=FILE` option then it will create a *speculative plan*, which is a description of the effect of the plan but without any intent to actually apply it.

FILL BLANK -

What is the name of the default file where Terraform stores the state?

Type your answer in the field provided. The text field is not case-sensitive and all variations of the correct answer are accepted.

Correct Answer: *Terraform.tfstate*

Reference:

<https://www.terraform.io/docs/language/state/index.html>

State

JUMP TO SECTION ▾

Terraform must store state about your managed infrastructure and configuration. This state is used by Terraform to map real world resources to your configuration, keep track of metadata, and to improve performance for large infrastructures.

This state is stored by default in a local file named "terraform.tfstate", but it can also be stored remotely, which works better in a team environment.

A Terraform local value can reference other Terraform local values.

- A. True
- B. False

Correct Answer: A

Reference:

<https://www.terraform.io/docs/configuration-0-11/locals.html>

The `locals` block defines one or more local variables within a module. Each `locals` block can have as many locals as needed, and there can be any number of `locals` blocks within a module.

The names given for the items in the `locals` block must be unique throughout a module. The given value can be any expression that is valid within the current module.

The expression of a local value can refer to other locals, but as usual reference cycles are not allowed. That is, a local cannot refer to itself or to a variable that refers (directly or indirectly) back to it.

It's recommended to group together logically-related local values into a single block, particularly if they depend on each other. This will help the reader understand the relationships between variables. Conversely, prefer to define *unrelated* local values in *separate* blocks, and consider annotating each block with a comment describing any context common to all of the enclosed locals.

Community vote distribution

A (100%)

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

- A. list
- B. map
- C. tree
- D. set

Correct Answer: C

Reference:

<https://www.terraform.io/docs/language/expressions/type-constraints.html>

The three kinds of collection type in the Terraform language are:

- `list(...)` : a sequence of values identified by consecutive whole numbers starting with zero.

The keyword `list` is a shorthand for `list(any)`, which accepts any element type as long as every element is the same type. This is for compatibility with older configurations; for new code, we recommend using the full form.

- `map(...)` : a collection of values where each is identified by a string label.

The keyword `map` is a shorthand for `map(any)`, which accepts any element type as long as every element is the same type. This is for compatibility with older configurations; for new code, we recommend using the full form.

Maps can be made with braces (`{}`) and colons (`:`) or equals signs (`=`): `{ "foo": "bar", "bar": "baz" }` OR `{ foo = "bar", bar = "baz" }`. Quotes may be omitted on keys, unless the key starts with a number, in which case quotes are required. Commas are required between key/value pairs for single line maps. A newline between key/value pairs is sufficient in multi-line maps.

Note: although colons are valid delimiters between keys and values, they are currently ignored by `terraform fmt` (whereas `terraform fmt` will attempt vertically align equals signs).

- `set(...)` : a collection of unique values that do not have any secondary identifiers or ordering.

Community vote distribution

C (100%)

When running the command `terraform taint` against a managed resource you want to force recreation upon, Terraform will immediately destroy and recreate the resource.

- A. True
- B. False

Correct Answer: B

Reference:

<https://www.devopsschool.com/blog/terraform-taint-and-untaint-explained-with-example-programs-and-tutorials/>

Community vote distribution

B (100%)

All standard backend types support state storage, locking, and remote operations like plan, apply and destroy.

- A. True
- B. False

Correct Answer: A

Reference:

<https://www.terraform.io/docs/language/settings/backends/remote.html>

Community vote distribution

B (91%) 9%

How can terraform plan aid in the development process?

- A. Validates your expectations against the execution plan without permanently modifying state
- B. Initializes your working directory containing your Terraform configuration files
- C. Formats your Terraform configuration files
- D. Reconciles Terraform's state against deployed resources and permanently modifies state using the current status of deployed resources

Correct Answer: A

Reference:

<https://github.com/hashicorp/terraform/issues/19235>

Community vote distribution

A (86%) 14%

You would like to reuse the same Terraform configuration for your development and production environments with a different state file for each.

Which command would you use?

- A. terraform import
- B. terraform workspace
- C. terraform state
- D. terraform init

Correct Answer: B

Community vote distribution

B (100%)

What is the name assigned by Terraform to reference this resource?

```
mainresource "google_compute_instance" "main" {  
    name = "test"  
}
```

- A. compute_instance
- B. main
- C. google
- D. teat

Correct Answer: B

Community vote distribution

B (100%)

You're building a CI/CD (continuous integration/ continuous delivery) pipeline and need to inject sensitive variables into your Terraform run.

How can you do this safely?

- A. Pass variables to Terraform with a `--var` flag
- B. Copy the sensitive variables into your Terraform code
- C. Store the sensitive variables in a `secure_vars.tf` file
- D. Store the sensitive variables as plain text in a source code repository

Correct Answer: B

Community vote distribution

A (100%)

Your security team scanned some Terraform workspaces and found secrets stored in a plaintext in state files.

How can you protect sensitive data stored in Terraform state files?

- A. Delete the state file every time you run Terraform
- B. Store the state in an encrypted backend
- C. Edit your state file to scrub out the sensitive data
- D. Always store your secrets in a secrets.tfvars file.

Correct Answer: B

Reference:

<https://www.terraform.io/docs/language/state/sensitive-data.html>

Storing state remotely can provide better security. As of Terraform 0.9, Terraform does not persist state to the local disk when remote state is in use, and some backends can be configured to encrypt the state data at rest.

For example:

- Terraform Cloud always encrypts state at rest and protects it with TLS in transit. Terraform Cloud also knows the identity of the user requesting state and maintains a history of state changes. This can be used to control access and track activity. Terraform Enterprise also supports detailed audit logging.
- The S3 backend supports encryption at rest when the `encrypt` option is enabled. IAM policies and logging can be used to identify any invalid access. Requests for the state go over a TLS connection.

Community vote distribution

B (83%)

D (17%)

In contrast to Terraform Open Source, when working with Terraform Enterprise and Cloud Workspaces, conceptually you could think about them as completely separate working directories.

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (100%)

You want to know from which paths Terraform is loading providers referenced in your Terraform configuration (*.tf files). You need to enable debug messages to find this out.

Which of the following would achieve this?

- A. Set the environment variable TF_LOG=TRACE
- B. Set verbose logging for each provider in your Terraform configuration
- C. Set the environment variable TF_VAR_log=TRACE
- D. Set the environment variable TF_LOG_PATH

Correct Answer: A

Reference:

<https://www.terraform.io/docs/cli/config/environment-variables.html>

Terraform refers to a number of environment variables to customize various aspects of its behavior. None of these environment variables are required when using Terraform, but they can be used to change some of Terraform's default behaviors in unusual situations, or to increase output verbosity for debugging.

TF_LOG

Enables detailed logs to appear on stderr which is useful for debugging. For example:

```
export TF_LOG=trace
```

[Copy](#)

Community vote distribution

A (100%)

How is terraform import run?

- A. As a part of terraform init
- B. As a part of terraform plan
- C. As a part of terraform refresh
- D. By an explicit call
- E. All of the above

Correct Answer: D

Community vote distribution

D (100%)

You have a simple Terraform configuration containing one virtual machine (VM) in a cloud provider. You run `terraform apply` and the VM is created successfully.

What will happen if you delete the VM using the cloud provider console, and run `terraform apply` again without changing any Terraform code?

- A. Terraform will remove the VM from state file
- B. Terraform will report an error
- C. Terraform will not make any changes
- D. Terraform will recreate the VM

Correct Answer: D

Community vote distribution

D (85%) C (15%)

Which of these options is the most secure place to store secrets for connecting to a Terraform remote backend?

- A. Defined in Environment variables
- B. Inside the backend block within the Terraform configuration
- C. Defined in a connection configuration outside of Terraform
- D. None of above

Correct Answer: A

Community vote distribution

C (53%) A (45%)

Your DevOps team is currently using the local backend for your Terraform configuration. You would like to move to a remote backend to begin storing the state file in a central location.

Which of the following backends would not work?

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

Correct Answer: A

Reference:

<https://secrethub.io/blog/secret-management-for-terraform/>

Community vote distribution

C (62%) B (38%)

Which backend does the Terraform CLI use by default?

- A. Terraform Cloud
- B. Consul
- C. Remote
- D. Local

Correct Answer: D

Reference:

<https://www.terraform.io/docs/language/settings/backends/configuration.html>

Default Backend

If a configuration includes no backend block, Terraform defaults to using the `local` backend, which stores state as a plain file in the current working directory.

Community vote distribution

D (100%)

When you initialize Terraform, where does it cache modules from the public Terraform Module Registry?

- A. On disk in the `/tmp` directory
- B. In memory
- C. On disk in the `.terraform` sub-directory
- D. They are not cached

Correct Answer: C

Reference:

<https://www.terraform.io/docs/language/modules/sources.html>

Community vote distribution

C (100%)

You write a new Terraform configuration and immediately run `terraform apply` in the CLI using the local backend.

Why will the apply fail?

- A. Terraform needs you to format your code according to best practices first
- B. Terraform needs to install the necessary plugins first
- C. The Terraform CLI needs you to log into Terraform cloud first
- D. Terraform requires you to manually run `terraform plan` first

Correct Answer: C

Community vote distribution

B (100%)

What features stops multiple admins from changing the Terraform state at the same time?

- A. Version control
- B. Backend types
- C. Provider constraints
- D. State locking

Correct Answer: D

Reference:

<https://blog.gruntwork.io/how-to-manage-terraform-state-28f5697e68fa>

2. Locking: Most version control systems do not provide any form of locking that would prevent two team members from running `terraform apply` on the same state file at the same time.

Community vote distribution

D (100%)

A fellow developer on your team is asking for some help in refactoring their Terraform code. As part of their application's architecture, they are going to tear down an existing deployment managed by Terraform and deploy new. However, there is a server resource named `aws_instance.ubuntu[1]` they would like to keep to perform some additional analysis.

What command should be used to tell Terraform to no longer manage the resource?

- A. `terraform apply rm aws_instance.ubuntu[1]`
- B. `terraform state rm aws_instance.ubuntu[1]`
- C. `terraform plan rm aws_instance.ubuntu[1]`
- D. `terraform delete aws_instance.ubuntu[1]`

Correct Answer: B

Reference:

<https://www.terraform.io/docs/cli/commands/state/rm.html>

Usage

Usage: `terraform state rm [options] ADDRESS...`

Terraform will search the state for any instances matching the given **resource address**, and remove the record of each one so that Terraform will no longer be tracking the corresponding remote objects.

This means that although the objects will still continue to exist in the remote system, a subsequent `terraform plan` will include an action to create a new object for each of the "forgotten" instances. Depending on the constraints imposed by the remote system, creating those objects might fail if their names or other identifiers conflict with the old objects still present.

Community vote distribution

B (100%)

Terraform can only manage resource dependencies if you set them explicitly with the `depends_on` argument.

- A. True
- B. False

Correct Answer: A

Reference:

<https://learn.hashicorp.com/tutorials/terraform/dependencies?in=terraform/0-13>

Community vote distribution

B (96%)

4%

A terraform apply can not _____ infrastructure.

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

Correct Answer: D

Community vote distribution

D (100%)

You need to constrain the GitHub provider to version 2.1 or greater.

Which of the following should you put into the Terraform 0.12 configuration's provider block?

- A. version >= 2.1
- B. version ~> 2.1
- C. version = >2.1 =>
- D. version = >2.1 =<

Correct Answer: B

Reference:

<https://github.com/hashicorp/terraform-provider-null/issues/31>

Community vote distribution

D (92%)

8%

You just scaled your VM infrastructure and realized you set the count variable to the wrong value. You correct the value and save your change.

What do you do next to make your infrastructure match your configuration?

- A. Run an apply and confirm the planned changes
- B. Inspect your Terraform state because you want to change it
- C. Reinitialize because your configuration has changed
- D. Inspect all Terraform outputs to make sure they are correct

Correct Answer: A

Community vote distribution

A (92%)

8%

Terraform provisioners that require authentication can use the _____ block.

- A. connection
- B. credentials
- C. secrets
- D. ssh

Correct Answer: B

Community vote distribution

A (100%)

Terraform validate reports syntax check errors from which of the following scenarios?

- A. Code contains tabs indentation instead of spaces
- B. There is missing value for a variable
- C. The state files does not match the current infrastructure
- D. None of the above

Correct Answer: B

Reference:

<http://man.hubwiz.com/docset/Terraform.docset/Contents/Resources/Documents/docs/commands/validate.html>

The `terraform validate` command is used to validate the syntax of the terraform files. Terraform performs a syntax check on all the terraform files in the directory, and will display an error if any of the files doesn't validate.

This command **does not** check formatting (e.g. tabs vs spaces, newlines, comments etc.).

The following can be reported:

- invalid `HCL` syntax (e.g. missing trailing quote or equal sign)
- invalid HCL references (e.g. variable name or attribute which doesn't exist)
- same `provider` declared multiple times
- same `module` declared multiple times
- same `resource` declared multiple times
- invalid `module` name
- interpolation used in places where it's unsupported (e.g. `variable`, `depends_on`, `module.source`, `provider`)
- missing value for a variable (none of `-var foo=...` flag, `-var-file=foo.vars` flag, `TF_VAR_foo` environment variable, `terraform.tfvars`, or default value in the configuration)

Community vote distribution

D (57%)

B (41%)

Which of the following is allowed as a Terraform variable name?

- A. count
- B. name
- C. source
- D. version

Correct Answer: B

Reference:

<https://www.terraform.io/docs/language/values/variables.html>

The label after the `variable` keyword is a name for the variable, which must be unique among all variables in the same module. This name is used to assign a value to the variable from outside and to reference the variable's value from within the module.

The name of a variable can be any valid [identifier](#) except the following: `source` , `version` , `providers` , `count` , `for_each` , `lifecycle` , `depends_on` , `locals` .

These names are reserved for meta-arguments in [module configuration blocks](#), and cannot be declared as variable names.

Community vote distribution

B (100%)

What type of block is used to construct a collection of nested configuration blocks?

- A. for_each
- B. repeated
- C. nesting
- D. dynamic

Correct Answer: D

Reference:

<https://www.hashicorp.com/blog/hashicorp-terraform-0-12-preview-for-and-for-each>

Dynamic Nested Blocks

Several resource types use nested configuration blocks to define repeatable portions of their configuration. Terraform 0.12 introduces a new construct for dynamically constructing a collection of nested configuration blocks.

For example, the `aws_autoscaling_group` resource type uses nested blocks to declare tags that may or may not be propagated to any created EC2 instances. The example below shows the [Terraform 0.11 and earlier syntax](#):

Community vote distribution

D (79%)

A (21%)

Module variable assignments are inherited from the parent module and do not need to be explicitly set.

- A. True
- B. False

Correct Answer: B

Reference:

<https://github.com/hashicorp/terraform/issues/15818>

Community vote distribution

B (80%) A (20%)

If writing Terraform code that adheres to the Terraform style conventions, how would you properly indent each nesting level compared to the one above it?

- A. With four spaces
- B. With a tab
- C. With three spaces
- D. With two spaces

Correct Answer: D

Reference:

<https://www.terraform.io/docs/language/syntax/style.html>

The Terraform parser allows you some flexibility in how you lay out the elements in your configuration files, but the Terraform language also has some idiomatic style conventions which we recommend users always follow for consistency between files and modules written by different teams. Automatic source code formatting tools may apply these conventions automatically.

Note: You can enforce these conventions automatically by running `terraform fmt`.

- Indent two spaces for each nesting level.
- When multiple arguments with single-line values appear on consecutive lines at the same nesting level, align their equals signs:

Community vote distribution

D (92%) 8%

Which of the following is not an action performed by terraform init?

- A. Create a sample main.tf file
- B. Initialize a configured backend
- C. Retrieve the source code for all referenced modules
- D. Load required provider plugins

Correct Answer: A

Reference:

<https://www.terraform.io/docs/cli/init/index.html>

Community vote distribution

A (100%)

HashiCorp Configuration Language (HCL) supports user-defined functions.

- A. True
- B. False

Correct Answer: B

Reference:

https://www.packer.io/docs/templates/hcl_templates/functions

The HCL language includes a number of built-in functions that you can call from within expressions to transform and combine values. The general syntax for function calls is a function name followed by comma-separated arguments in parentheses:

`max(5, 12, 9)`

Copy 

For more details on syntax, see [Function Calls](#) on the Expressions page.

The HCL language does not support user-defined functions, and so only the functions built in to the language are available for use. The navigation for this section includes a list of all of the available built-in functions.

Community vote distribution

B (100%)

How can you trigger a run in a Terraform Cloud workspace that is connected to a Version Control System (VCS) repository?

- A. Only Terraform Cloud organization owners can set workspace variables on VCS connected workspaces
- B. Commit a change to the VCS working directory and branch that the Terraform Cloud workspace is connected to
- C. Only members of a VCS organization can open a pull request against repositories that are connected to Terraform Cloud workspaces
- D. Only Terraform Cloud organization owners can approve plans in VCS connected workspaces

Correct Answer: B

Reference:

<https://www.terraform.io/docs/cloud/vcs/index.html>

Terraform Cloud is more powerful when you integrate it with your version control system (VCS) provider. Although you can use many of Terraform Cloud's features without one, a VCS connection provides additional features and improved workflows. In particular:

- When workspaces are linked to a VCS repository, Terraform Cloud can [automatically initiate Terraform runs](#) when changes are committed to the specified branch.
- Terraform Cloud makes code review easier by [automatically predicting](#) how pull requests will affect infrastructure.
- Publishing new versions of a [private Terraform module](#) is as easy as pushing a tag to the module's repository.

We recommend configuring VCS access when first setting up an organization, and you might need to add additional VCS providers later depending on how your organization grows.

Configuring a new VCS provider requires permission to manage VCS settings for the organization. ([More about permissions.](#))

Community vote distribution

B (100%)

Terraform and Terraform providers must use the same major version number in a single configuration.

- A. True
- B. False

Correct Answer: B

Reference:

<https://www.terraform.io/docs/language/expressions/version-constraints.html>

Community vote distribution

B (100%)

Which statement describes a goal of infrastructure as code?

- A. An abstraction from vendor specific APIs
- B. Write once, run anywhere
- C. A pipeline process to test and deliver software
- D. The programmatic configuration of resources

Correct Answer: D

Community vote distribution

D (83%) B (17%)

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

- A. When a change is made to the resources via the Azure Cloud Console, the changes are recorded in a new state file
- B. When a change is made to the resources via the Azure Cloud Console, Terraform will update the state file to reflect them during the next plan or apply
- C. When a change is made to the resources via the Azure Cloud Console, the current state file will not be updated
- D. When a change is made to the resources via the Azure Cloud Console, the changes are recorded in the current state file

Correct Answer: AC

Community vote distribution

BC (41%) C (41%) Other

You need to deploy resources into two different cloud regions in the same Terraform configuration. To do that, you declare multiple provider configurations as follows:

```
provider "aws" {
  region = "us-east-1"
}

provider "aws" {
  alias = "west"
  region = "us-west-2"
}
```

What meta-argument do you need to configure in a resource block to deploy the resource to the `us-west-2` AWS region?

- A. alias = west
- B. provider = west
- C. provider = aws.west
- D. alias = aws.west

Correct Answer: C

Reference:

<https://github.com/hashicorp/terraform/issues/451>

Community vote distribution

C (100%)

You have declared an input variable called environment in your parent module. What must you do to pass the value to a child module in the configuration?

- A. Add node_count = var.node_count
- B. Declare the variable in a terraform.tfvars file
- C. Declare a node_count input variable for child module
- D. Nothing, child modules inherit variables of parent module

Correct Answer: C

Community vote distribution

C (82%)

Other

If a module declares a variable with a default, that variable must also be defined within the module.

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (100%)

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

- A. Environment Variables
- B. Mark the variable as sensitive
- C. A Terraform provider
- D. A -var flag

Correct Answer: D

Community vote distribution

B (60%)	C (30%)	10%
---------	---------	-----

Which of the following arguments are required when declaring a Terraform output?

- A. sensitive
- B. description
- C. default
- D. value

Correct Answer: D

Community vote distribution

D (100%)

Your risk management organization requires that new AWS S3 buckets must be private and encrypted at rest. How can Terraform Enterprise automatically and proactively enforce this security control?

- A. With a Sentinel policy, which runs before every apply
- B. By adding variables to each TFE workspace to ensure these settings are always enabled
- C. With an S3 module with proper settings for buckets
- D. Auditing cloud storage buckets with a vulnerability scanning tool

Correct Answer: B

Community vote distribution

A (100%)

Most Terraform providers interact with _____.

- A. API
- B. VCS Systems
- C. Shell scripts
- D. None of the above

Correct Answer: A

Community vote distribution

A (100%)

terraform validate validates that your infrastructure matches the Terraform state file.

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (100%)

What does terraform import allow you to do?

- A. Import a new Terraform module
- B. Use a state file to import infrastructure to the cloud
- C. Import provisioned infrastructure to your state file
- D. Import an existing state file to a new Terraform workspace

Correct Answer: C

Community vote distribution

C (100%)

FILL BLANK -

In the below configuration, how would you reference the module output vpc_id?

```
module "vpc" {
  source = "terraform-and-modules/vpc/aws"
  cidr = "10.0.0.0/16"
  name = "test-vpc"
}
```

Type your answer in the field provided. The text field is not case sensitive and all variations of the correct answer are accepted.

Correct Answer: *output "outvpc_id"*

How would you reference the Volume IDs associated with the ebs_block_device blocks in this configuration?

```
resource "aws_instance" "example" {
  ami = "ami-abc123"
  instance_type = "t2.micro"

  ebs_block_device {
    device_name = "sda2"
    volume_size = 16
  }

  ebs_block_device {
    device_name = "sda3"
    volume_size = 20
  }
}
```

- A. aws_instance.example.ebs_block_device.[*].volume_id
- B. aws_instance.example.ebs_block_device.volume_id
- C. aws_instance.example.ebs_block_device[sda2,sda3].volume_id
- D. aws_instance.example.ebs_block_device.*.volume_id

Correct Answer: C

Community vote distribution

D (84%)

A (16%)

What does state locking accomplish?

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

Correct Answer: B

Community vote distribution

C (100%)

You just upgraded the version of a provider in an existing Terraform project. What do you need to do to install the new provider?

- A. Run `terraform apply -upgrade`
- B. Run `terraform init -upgrade`
- C. Run `terraform refresh`
- D. Upgrade your version of Terraform

Correct Answer: B

Community vote distribution

B (100%)

A module can always refer to all variables declared in its parent module.

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (66%)

A (34%)

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

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

Correct Answer: B

Community vote distribution

A (100%)

You have a simple Terraform configuration containing one virtual machine (VM) in a cloud provider. You run `terraform apply` and the VM is created successfully.

What will happen if you `terraform apply` again immediately afterwards without changing any Terraform code?

- A. Terraform will terminate and recreate the VM
- B. Terraform will create another duplicate VM
- C. Terraform will apply the VM to the state file
- D. Nothing

Correct Answer: C

Community vote distribution

D (100%)

A junior admin accidentally deleted some of your cloud instances. What does Terraform do when you run `terraform apply`?

- A. Build a completely brand new set of infrastructure
- B. Tear down the entire workspace infrastructure and rebuild it
- C. Rebuild only the instances that were deleted
- D. Stop and generate an error message about the missing instances

Correct Answer: D

Community vote distribution

C (90%)

10%

You have created a main.tr Terraform configuration consisting of an application server, a database, and a load balancer. You ran terraform apply and all resources were created successfully. Now you realize that you do not actually need the load balancer so you run terraform destroy without any flags. What will happen?

- A. Terraform will destroy the application server because it is listed first in the code
- B. Terraform will prompt you to confirm that you want to destroy all the infrastructure
- C. Terraform will destroy the main.tf file
- D. Terraform will prompt you to pick which resource you want to destroy
- E. Terraform will immediately destroy all the infrastructure

Correct Answer: B

Community vote distribution

B (100%)

Which type of block fetches or computes information for use elsewhere in a Terraform configuration?

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

Correct Answer: A

Community vote distribution

D (100%)

You have just developed a new Terraform configuration for two virtual machines with a cloud provider. You would like to create the infrastructure for the first time.

Which Terraform command should you run first?

- A. terraform apply
- B. terraform plan
- C. terraform show
- D. terraform init

Correct Answer: C

Community vote distribution

D (100%)

All modules published on the official Terraform Module Registry have been verified by HashiCorp.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (64%) A (36%)

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

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (64%) A (30%) 6%

Which of the following does terraform apply change after you approve the execution plan? (Choose two.)

- A. Cloud infrastructure
- B. The .terraform directory
- C. The execution plan
- D. State file
- E. Terraform code

Correct Answer: C

Community vote distribution

A (66%) D (34%)

A Terraform backend determines how Terraform loads state and stores updates when you execute _____.

- A. apply
- B. taint
- C. destroy
- D. All of the above
- E. None of the above

Correct Answer: E

Community vote distribution

D (100%)

What does Terraform use .terraform.lock.hcl file for?

- A. Tracking provider dependencies
- B. There is no such file
- C. Preventing Terraform runs from occurring
- D. Storing references to workspaces which are locked

Correct Answer: D

Community vote distribution

A (96%)

4%

You've used Terraform to deploy a virtual machine and a database. You want to replace this virtual machine instance with an identical one without affecting the database. What is the best way to achieve this using Terraform?

- A. Use the terraform state rm command to remove the VM from state file
- B. Use the terraform taint command targeting the VMs then run terraform plan and terraform apply
- C. Use the terraform apply command targeting the VM resources only
- D. Delete the Terraform VM resources from your Terraform code then run terraform plan and terraform apply

Correct Answer: B

Community vote distribution

B (100%)

How do you specify a module's version when publishing it to the public Terraform Module Registry?

- A. The module's configuration page on the Terraform Module Registry
- B. Terraform Module Registry does not support versioning modules
- C. The release tags in the associated repo
- D. The module's Terraform code

Correct Answer: C

Community vote distribution

C (100%)

Terraform plan updates your state file.

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (67%)

A (33%)

To check if all code in a Terraform configuration with multiple modules is properly formatted without making changes, what command should be run?

- A. terraform fmt -check
- B. terraform fmt -write=false
- C. terraform fmt --list -recursive
- D. terraform fmt -check -recursive

Correct Answer: C

Community vote distribution

D (100%)

As a member of the operations team, you need to run a script on a virtual machine created by Terraform. Which provision is best to use in your Terraform code?

- A. null-exe
- B. local-exec
- C. remote-exec
- D. file

Correct Answer: B

Community vote distribution

C (100%)

You are using a networking module in your Terraform configuration with the name label my_network. In your main configuration you have the following code:

```
output: "net_id" {  
    value = module.my_network.vnet_id  
}
```

When you run terraform validate, you get the following error:

```
Error: Reference to undeclared output value  
  
on main.tf line 12, in output "net_id":  
12:     value = module.my_network.vnet_id
```

What must you do to successfully retrieve this value from your networking module?

- A. Define the attribute vnet_id as a variable in the networking module
- B. Change the referenced value to module.my_network.outputs.vnet_id
- C. Define the attribute vnet_id as an output in the networking module
- D. Change the referenced value to my_network.outputs.vnet_id

Correct Answer: D

Community vote distribution

C (93%)

7%

You are writing a child Terraform module which provisions an AWS instance. You want to make use of the IP address returned in the root configuration. You name the instance resource "main".

Which of these is the correct way to define the output value using HCL2?

A.

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

B.

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

Correct Answer: A

How can a ticket-based system slow down infrastructure provisioning and limit the ability to scale? (Choose two.)

- A. A full audit trail of the request and fulfillment process is generated
- B. A request must be submitted for infrastructure changes
- C. As additional resources are required, more tickets are submitted
- D. A catalog of approved resources can be accessed from drop down lists in a request form

Correct Answer: B

Community vote distribution

C (61%)

B (39%)

Which of the following statements about Terraform modules is not true?

- A. Modules must be publicly accessible
- B. Modules can be called multiple times
- C. Module is a container for one or more resources
- D. Modules can call other modules

Correct Answer: C

Community vote distribution

A (100%)

Which Terraform collection type should you use to store key/value pairs?

- A. tuple
- B. set
- C. map
- D. list

Correct Answer: C

Community vote distribution

C (100%)

You have used Terraform to create an ephemeral development environment in the cloud and are now ready to destroy all the infrastructure described by your

Terraform configuration. To be safe, you would like to first see all the infrastructure that will be deleted by Terraform.

Which command should you use to show all of the resources that will be deleted? (Choose two.)

- A. Run terraform plan -destroy
- B. Run terraform show -destroy
- C. Run terraform destroy and it will first output all the resources that will be deleted before prompting for approval
- D. Run terraform show -destroy

Correct Answer: AD

Community vote distribution

AC (100%)

When do you need to explicitly execute terraform refresh?

- A. Before every terraform plan
- B. Before every terraform apply
- C. Before every terraform import
- D. None of the above

Correct Answer: D

Community vote distribution

D (100%)

All Terraform Cloud tiers support team management and governance.

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (91%) 9%

What advantage does an operations team that uses infrastructure as code have?

- A. The ability to delete infrastructure
- B. The ability to update existing infrastructure
- C. The ability to reuse best practice configurations and settings
- D. The ability to autoscale a group of servers

Correct Answer: D

Community vote distribution

C (100%)

You have modified your Terraform configuration to fix a typo in the Terraform ID of a resource from `aws_security_group.http` to `aws_security_group.http`

Original configuration:

```
resource "aws_security_group" "http" {
  name = "http"
  ingress {
    from_port   = "80"
    to_port     = "80"
    protocol    = "tcp"
    cidr_blocks = ["0.0.0.0/0"]
  }
}
```

Updated configuration:

```
resource "aws_security_group" "http" {
  name = "http"
  ingress {
    from_port   = "80"
    to_port     = "80"
    protocol    = "tcp"
    cidr_blocks = ["0.0.0.0/0"]
  }
}
```

Which of the following commands would you run to update the ID in state without destroying the resource?

- A. `terraform mv aws_security_group.http aws_security_group.http`
- B. `terraform apply`
- C. `terraform refresh`

Correct Answer: B

Community vote distribution

A (100%)

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.

```
provider {  
  "aws" {  
    profile = var.aws_profile  
    region  = var.aws_region  
  }  
  
  "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.

```
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  
  }  
}
```

Correct Answer: B

Terraform variable names are saved in the state file.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

Terraform Cloud is available only as a paid offering from HashiCorp.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

Which of the following is not a way to trigger terraform destroy?

- A. Using the destroy command with auto-approve
- B. Running terraform destroy from the correct directory and then typing "yes" when prompted in the CLI
- C. Passing --destroy at the end of a plan request
- D. Delete the state file and run terraform apply

Correct Answer: D

Community vote distribution

C (51%)

D (49%)

Which of the following is not an advantage of using infrastructure as code operations?

- A. Self-service infrastructure deployment
- B. Troubleshoot via a Linux diff command
- C. Public cloud console configuration workflows
- D. Modify a count parameter to scale resources
- E. API driven workflows

Correct Answer: B

Community vote distribution

C (78%)

B (22%)

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

Correct Answer: A

Community vote distribution

D (100%)

What does Terraform use providers for? (Choose three.)

- A. Provision resources for on-premises infrastructure services
- B. Simplify API interactions
- C. Provision resources for public cloud infrastructure services
- D. Enforce security and compliance policies
- E. Group a collection of Terraform configuration files that map to a single state file

Correct Answer: ABC

Community vote distribution

ABC (68%)

BCE (26%)

6%

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

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (73%)

A (27%)

How does Terraform determine dependencies between resources?

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

Correct Answer: A

Community vote distribution

A (100%)

Which parameters does `terraform import` require? (Choose two.)

- A. Path
- B. Provider
- C. Resource ID
- D. Resource address

Correct Answer: BC

Community vote distribution

CD (100%)

Once a new Terraform backend is configured with a Terraform code block, which command(s) is (are) used to migrate the state file?

- A. terraform apply
- B. terraform push
- C. terraform destroy, then terraform apply
- D. terraform init

Correct Answer: D

Community vote distribution

D (76%) B (24%)

What does this code do?

```
terraform {  
    required_providers {  
        aws = "~> 3.0"  
    }  
}
```

- A. Requires any version of the AWS provider >= 3.0 and < 4.0
- B. Requires any version of the AWS provider >= 3.0
- C. Requires any version of the AWS provider after the 3.0 major release, like 4.1
- D. Requires any version of the AWS provider > 3.0

Correct Answer: A

Community vote distribution

A (86%) 14%

What does terraform refresh modify?

- A. Your cloud infrastructure
- B. Your state file
- C. Your Terraform plan
- D. Your Terraform configuration

Correct Answer: B

Community vote distribution

B (100%)

Which of the following is not valid source path for specifying a module?

- A. source = "./moduleversion=v1.0.0"
- B. source = "github.com/hashicorp/example?ref=v1.0.0"
- C. source = "./module"
- D. source = "hashicorp/consul/aws"

Correct Answer: A

Community vote distribution

A (100%)

Which of the following is true about terraform apply? (Choose two.)

- A. It only operates on infrastructure defined in the current working directory or workspace
- B. You must pass the output of a terraform plan command to it
- C. Depending on provider specification, Terraform may need to destroy and recreate your infrastructure resources
- D. By default, it does not refresh your state file to reflect current infrastructure configuration
- E. You cannot target specific resources for the operation

Correct Answer: AC

Community vote distribution

AC (100%)

Which of the following statements about local modules is incorrect?

- A. Local modules are not cached by terraform init command
- B. Local modules are sourced from a directory on disk
- C. Local modules support versions
- D. All of the above (all statements above are incorrect)
- E. None of the above (all statements above are correct)

Correct Answer: C

Community vote distribution

C (100%)

Which of the following is true about Terraform's implementation of infrastructure as code? (Choose two.)

- A. It is only compatible with AWS infrastructure management
- B. You cannot reuse infrastructure configuration
- C. You can version your infrastructure configuration
- D. It requires manual configuration of infrastructure resources
- E. It allows you to automate infrastructure provisioning

Correct Answer: BD

Community vote distribution

CE (100%)

You need to write some Terraform code that adds 42 firewall rules to a security group as shown in the example.

```
resource "aws_security_group" "many_rules" {  
    name = "many-rules"  
    ingress {  
        from_port = 443  
        to_port = 443  
        protocol = "tcp"  
        cidr_blocks = "0.0.0.0/0"  
    }  
}
```

What can you use to avoid writing 42 different nested ingress config blocks by hand?

- A. A count loop
- B. A for block
- C. A for each block
- D. A dynamic block

Correct Answer: D

Community vote distribution

D (92%)

8%

Which of the following is the safest way to inject sensitive values into a Terraform Cloud workspace?

- A. Write the value to a file and specify the file with the `-var-file` flag
- B. Set a value for the variable in the UI and check the "Sensitive" check box
- C. Edit the state file directly just before running `terraform apply`
- D. Set the variable value on the command line with the `-var` flag

Correct Answer: B

Community vote distribution

B (88%) 13%

`terraform apply` will fail if you have not run `terraform plan` first to update the plan output.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

How would you reference the attribute "name" of this fictitious resource in HCL?

```
resource "kubernetes_namespace" "example" {  
    name = "test"  
}
```

- A. `resource.kubernetes_namespace.example.name`
- B. `kubernetes_namespace.test.name`
- C. `kubernetes_namespace.example.name`
- D. `data.kubernetes_namespace.name`
- E. None of the above

Correct Answer: C

Community vote distribution

C (100%)

A Terraform output that sets the "sensitive" argument to true will not store that value in the state file.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

Which are forbidden actions when the Terraform state file is locked? (Choose three.)

- A. terraform destroy
- B. terraform fmt
- C. terraform state list
- D. terraform apply
- E. terraform plan
- F. terraform validate

Correct Answer: ADE

Community vote distribution

ADE (100%)

Terraform installs its providers during which phase?

- A. Plan
- B. Init
- C. Refresh
- D. All of the above

Correct Answer: B

Community vote distribution

B (100%)

When does Sentinel enforce policy logic during a Terraform Enterprise run?

- A. Before the plan phase
- B. During the plan phase
- C. Before the apply phase
- D. After the apply phase

Correct Answer: C

Community vote distribution

C (88%)	12%
---------	-----

What is the purpose of a Terraform workspace in either open source or enterprise?

- A. Workspaces allow you to manage collections of infrastructure in state files
- B. A logical separation of business units
- C. A method of grouping multiple infrastructure security policies
- D. Provides limited access to a cloud environment

Correct Answer: A

Community vote distribution

A (90%)	10%
---------	-----

Which is the best way to specify a tag of v1.0.0 when referencing a module stored in Git (for example git::https://example.com/vpc.git)?

- A. Append ?ref=v1.0.0 argument to the source path
- B. Add version = "1.0.0" parameter to module block
- C. Nothing – modules stored on GitHub always default to version 1.0.0
- D. Modules stored on GitHub do not support versioning

Correct Answer: A

Community vote distribution

A (84%)	B (16%)
---------	---------

Changing the Terraform backend from the default "local" backend to a different one after doing your first terraform apply is:

- A. Mandatory
- B. Optional
- C. Impossible
- D. Discouraged

Correct Answer: B

Community vote distribution

B (100%)

You have modified your local Terraform configuration and ran terraform plan to review the changes. Simultaneously, your teammate manually modified the infrastructure component you are working on. Since you already ran terraform plan locally, the execution plan for terraform apply will be the same.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

terraform apply is failing with the following error. What next step should you take to determine the root cause of the problem?

Error loading state: AccessDenied: Access Denied status code: 403, request id: 288766CE5CCA24A0, host id: FOOBAR

- A. Set TF_LOG=DEBUG
- B. Review syslog for Terraform error messages
- C. Run terraform login to reauthenticate with the provider
- D. Review /var/log/terraform.log for error messages

Correct Answer: A

Community vote distribution

A (80%)

C (20%)

As a member of an operations team that uses infrastructure as code (IaC) practices, you are tasked with making a change to an infrastructure stack running in a public cloud.

Which pattern would follow IaC best practices for making a change?

- A. Clone the repository containing your infrastructure code and then run the code
- B. Use the public cloud console to make the change after a database record has been approved
- C. Make the change programmatically via the public cloud CLI
- D. Make the change via the public cloud API endpoint
- E. Submit a pull request and wait for an approved merge of the proposed changes

Correct Answer: E

Community vote distribution

E (100%)

What command can you run to generate DOT (Document Template) formatted data to visualize Terraform dependencies?

- A. terraform refresh
- B. terraform show
- C. terraform graph
- D. terraform output

Correct Answer: C

Community vote distribution

C (100%)

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

Correct Answer: A

Community vote distribution

A (55%)

D (45%)

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

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (67%) A (33%)

`terraform init` retrieves the source code for all referenced modules.

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (74%) B (26%)

You have a Terraform configuration that defines a single virtual machine with no references to it. You have run `terraform apply` to create the resource, and then removed the resource definition from your Terraform configuration file.

What will happen when you run `terraform apply` in the working directory again?

- A. Nothing
- B. Terraform will destroy the virtual machine
- C. Terraform will error
- D. Terraform will remove the virtual machine from the state file, but the resource will still exist

Correct Answer: B

Community vote distribution

B (100%)

Which configuration consistency errors does terraform validate report?

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

Correct Answer: D

Community vote distribution

D (88%)	13%
---------	-----

In Terraform HCL, an object type of object({ name=string, age=number }) would match this value:

A.

```
{  
  name = "John"  
  age = fifty two  
}
```

B.

```
{  
  name = "John"  
  age = 52  
}
```

Correct Answer: B

Where can Terraform not load a provider from?

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

Correct Answer: A

Community vote distribution

A (74%)	C (21%)	5%
---------	---------	----

Which of the following locations can Terraform use as a private source for modules? (Choose two.)

- A. Internally hosted SCM (Source Control Manager) platform
- B. Public Terraform Module Registry
- C. Private repository on GitHub
- D. Public repository on GitHub

Correct Answer: AC

Community vote distribution

AC (100%)

Why should secrets not be hard coded into Terraform code? (Choose two.)

- A. It makes the code less reusable.
- B. Terraform code is typically stored in version control, as well as copied to the systems from which it's run. Any of those may not have robust security mechanisms.
- C. The Terraform code is copied to the target resources to be applied locally and could expose secrets if a target resource is compromised.
- D. All passwords should be rotated on a quarterly basis.

Correct Answer: BC

Community vote distribution

AB (57%)

BC (43%)

If a Terraform creation-time provisioner fails, what will occur by default?

- A. The resource will not be affected, but the provisioner will need to be applied again
- B. The resource will be destroyed
- C. The resource will be marked as "tainted"
- D. Nothing, provisioners will not show errors in the command line

Correct Answer: C

Community vote distribution

C (100%)

When should Terraform configuration files be written when running terraform import on existing infrastructure?

- A. Infrastructure can be imported without corresponding Terraform code
- B. Terraform will generate the corresponding configuration files for you
- C. You should write Terraform configuration files after the next terraform import is executed
- D. Terraform configuration should be written before terraform import is executed

Correct Answer: B

Community vote distribution

D (59%) C (39%)

Which command lets you experiment with Terraform's built-in functions?

- A. terraform env
- B. terraform console
- C. terraform test
- D. terraform validate

Correct Answer: B

Reference:

<https://www.terraform.io/language/functions>

Community vote distribution

B (100%)

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

Correct Answer: A

Community vote distribution

A (100%)

Open source Terraform can only import publicly-accessible and open-source modules.

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (82%)

A (18%)

What does terraform destroy do?

- A. Destroy all infrastructure in the Terraform state file
- B. Destroy all Terraform code files in the current directory while leaving the state file intact
- C. Destroy all infrastructure in the configured Terraform provider
- D. Destroy the Terraform state file while leaving infrastructure intact

Correct Answer: D

Community vote distribution

A (83%) C (17%)

While attempting to deploy resources into your cloud provider using Terraform, you begin to see some odd behavior and experience sluggish 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_LEVEL
- B. TF_LOG_FILE
- C. TF_LOG
- D. TP_LOG_PATH

Correct Answer: C

Reference:

<https://www.terraform.io/internals/debugging>

Community vote distribution

C (100%)

If a DevOps team adopts AWS CloudFormation as their standardized method for provisioning public cloud resources, which of the following scenarios poses a challenge for this team?

- A. The team is asked to build a reusable code base that can deploy resources into any AWS region
- B. The team is asked to manage a new application stack built on AWS-native services
- C. The organization decides to expand into Azure and wishes to deploy new infrastructure using their existing codebase
- D. The DevOps team is tasked with automating a manual provisioning process

Correct Answer: D

Community vote distribution

C (100%)

You cannot install third party plugins using terraform init.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

Which of the following can you do with terraform plan? (Choose two.)

- A. Save a generated execution plan to apply later
- B. Execute a plan in a different workspace
- C. View the execution plan and check if the changes match your expectations
- D. Schedule Terraform to run at a planned time in the future

Correct Answer: AC

Reference:

<https://learn.hashicorp.com/tutorials/terraform/plan>

Community vote distribution

AC (100%)

Which are examples of infrastructure as code? (Choose two.)

- A. Cloned virtual machine images
- B. Change management database records
- C. Versioned configuration files
- D. Docker files

Correct Answer: BC

Community vote distribution

CD (100%)

FILL BLANK -

You need to migrate a workspace to use a remote backend. After updating your configuration, what command do you run to perform the migration?

Type your answer in the field provided. The text field is not case-sensitive and all variations of the correct answer are accepted.

Correct Answer: terraform init

When using a module from the public Terraform Module Registry, the following parameters are required attributes in the module block. (Choose two.)

- A. Each of the module's required inputs
- B. The module's source address
- C. Terraform Module Registry account token
- D. Each of the module's dependencies (example: submodules)
- E. The version of the module

Correct Answer: BE

Community vote distribution

AB (57%) BE (40%)

As a developer, you want to ensure your plugins are up to date with the latest versions. Which Terraform command should you use?

- A. terraform init -upgrade
- B. terraform apply -upgrade
- C. terraform refresh -upgrade
- D. terraform providers -upgrade

Correct Answer: A

Community vote distribution

A (100%)

You can access state stored with the local backend by using the `terraform_remote_state` data source.

- A. True
- B. False

Correct Answer: B

Community vote distribution

A (69%) B (31%)

You have been working in a Cloud provider account that is shared with other team members. You previously used Terraform to create a load balancer that is listening on port 80. After some application changes, you updated the Terraform code to change the port to 443.

You run `terraform plan` and see that the execution plan shows the port changing from 80 to 443 like you intended, and step away to grab some coffee.

In the meantime, another team member manually changes the load balancer port to 443 through the Cloud provider console before you get back to your desk.

What will happen when you `terraform apply` upon returning to your desk?

- A. Terraform will fail with an error because the state file is no longer accurate.
- B. Terraform will change the load balancer port to 80, and then change it back to 443.
- C. Terraform will not make any changes to the Load Balancer and will update the state file to reflect any changes made.
- D. Terraform will change the port back to 80 in your code.

Correct Answer: C

Community vote distribution

C (100%)

In a Terraform Cloud workspace linked to a version control repository, speculative plan runs start automatically when you merge or commit changes to version control.

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (71%)

B (29%)

You have some Terraform code and a variable definitions file named dev.auto.tfvars that you tested successfully in the dev environment. You want to deploy the same code in the staging environment with a separate variable definition file and a separate state file.

Which two actions should you perform? (Choose two.)

- A. Copy the existing terraform.tfstate file and save it as staging.terraform.tfstate
- B. Write a new staging.auto.tfvars variable definition file and run Terraform with the var-file="staging.auto.tfvars" flag
- C. Create a new Terraform workspace for staging
- D. Create a new Terraform provider for staging
- E. Add new Terraform code (*.tf files) for staging in the same directory

Correct Answer: BC

Community vote distribution

BC (100%)

The _____ determines how Terraform creates, updates, or deletes resources.

- A. Terraform configuration
- B. Terraform core
- C. Terraform provider
- D. Terraform provisioner

Correct Answer: A

Community vote distribution

C (79%)

A (21%)

Terraform destroy is the only way to remove infrastructure.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

Which of the following is the correct way to pass the value in the variable num_servers into a module with the input servers in HCL2?

- A. servers - var.num_servers
- B. servers - num_servers
- C. servers - var(num_servers)
- D. \$(var.num_servers)

Correct Answer: B

Community vote distribution

A (100%)

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
- B. terraform state show
- C. terraform get
- D. terraform state list

Correct Answer: A

Community vote distribution

B (100%)

How would you be able to reference an attribute from the vsphere_datacenter data source for use with the datacenter_id argument within the vsphere_folder resource in the following configuration?

```
data "vsphere_datacenter" "dc" {}

resource "vsphere_folder" "parent" {
    path = "Production"
    type = "vm"
    datacenter id = _____
```

- A. data.dc.id
- B. data.vsphere_datacenter.dc
- C. vsphere_datacenter.dc.id
- D. data.vsphere_datacenter.dc.id

Correct Answer: D

Community vote distribution

D (100%)

You decide to move a Terraform state file to Amazon S3 from another location. You write the code below into a file called backend.tf.

```
terraform {  
  backend "s3" {  
    bucket = "my-tf-bucket"  
    region = "us-east-1"  
  }  
}
```

Which command will migrate your current state file to the new S3 remote backend?

- A. terraform state
- B. terraform init
- C. terraform refresh
- D. terraform push

Correct Answer: B

Community vote distribution

B (100%)

You want to tag multiple resources with a string that is a combination of a generated random_id and a variable.

How should you use the same value in all these resources without repeating the random_id and variable in each resource?

- A. Local values
- B. Data source
- C. Modules
- D. Outputs

Correct Answer: A

Community vote distribution

A (100%)

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

- A. Interpolation
- B. Reusability of code
- C. Versioning
- D. Automation

Correct Answer: A

Community vote distribution

A (100%)

Module version is required to reference a module on the Terraform Module Registry.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (75%)

A (25%)

While deploying a virtual machine, the first launch user_data script fails due to race condition with another resource deployed during the same Terraform run.

What is the least disruptive method to correct the issue?

- A. Run terraform taint against the virtual machine's resource name, then terraform apply
- B. Restart the virtual machine from the cloud portal
- C. Run terraform apply again
- D. Run terraform destroy then terraform apply

Correct Answer: A

Community vote distribution

A (53%)

C (47%)

The public Module Registry is free to use.

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (100%)

Both Terraform Cloud and Terraform Enterprise support policy as code (Sentinel).

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (100%)

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. Collection functions
- C. Dynamic blocks
- D. Count arguments

Correct Answer: C

Community vote distribution

C (100%)

Which of the following module source paths does not specify a remote module?

- A. source = "./modules/consul"
- B. source = "git@github.com:hashicorp/example.git"
- C. source = "github.com/hashicorp/example"
- D. source = "hashicorp/consul/aws"

Correct Answer: C

Community vote distribution

A (100%)

You have a list of numbers that represents the number of free CPU cores on each virtual cluster:

```
numcpus = [ 18, 3, 7, 11, 2 ]
```

What Terraform function could you use to select the largest number from the list?

- A. max(numcpus)
- B. ceil(numcpus)
- C. top(numcpus)
- D. high[numcpus]

Correct Answer: A

Community vote distribution

A (100%)

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

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (60%)

A (40%)

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

- A. list
- B. map
- C. array
- D. string

Correct Answer: C

Community vote distribution

C (100%)

What is a key benefit of the Terraform state file?

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

Correct Answer: A

Community vote distribution

D (100%)

Which of these statements about Terraform Enterprise workspaces is false?

- A. They can securely store cloud credentials
- B. You must use the CLI to switch between workspaces
- C. Plans and applies can be triggered via version control system integrations
- D. They have role-based access controls

Correct Answer: C

Community vote distribution

B (100%)

Define the purpose of state in Terraform.

- A. State is used to map real world resources to your configuration and keep track of metadata
- B. State is a method of codifying the dependencies of related resources
- C. State is used to enforce resource configurations that relate to compliance policies
- D. State is used to store variables and quickly reuse existing code

Correct Answer: B

Community vote distribution

A (100%)

Which backend does the Terraform CLI use by default?

- A. API
- B. Remote
- C. Terraform Cloud
- D. Local
- E. HTTP

Correct Answer: D

Community vote distribution

D (100%)

Using the terraform state rm command against a resource will destroy it.

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (100%)

Which method for sharing Terraform configurations keeps them confidential within your organization, supports Terraform's semantic version constraints, and provides a browsable directory?

- A. Generic git repository
- B. Terraform Cloud/Terraform Enterprise private module registry
- C. Public Terraform Module Registry
- D. Subfolder within a workspace

Correct Answer: B

Community vote distribution

B (100%)

You are writing a child Terraform module which provisions an AWS instance. You want to make use of the IP address returned in the root configuration. You name the instance resource "main".

Which of these is the correct way to define the output value using HCL2?

- A.

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

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

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

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

Correct Answer: C

Community vote distribution

A (100%)

How would you refer to the indexing instance from the below configuration?

```
resource "aws_instance" "web" {  
  ...  
  for_each = {  
    "terraform": "value1",  
    "resource": "value2",  
    "indexing": "value3",  
    "example": "value4",  
  }  
}
```

- A. aws_instance["web"]["indexing"]
- B. aws_instance.web.indexing
- C. aws_instance-web["indexing"]
- D. aws_instance.web["indexing"]

Correct Answer: D

Community vote distribution

D (90%)

10%

Which feature is not included in Terraform Cloud's free tier?

- A. Workspace
- B. Remote state management
- C. Audit logging
- D. Private module registry

Correct Answer: D

Community vote distribution

C (92%) 8%

When should you run terraform init?

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

Correct Answer: D

Community vote distribution

C (100%)

Terraform configuration (including any module references) can contain only one Terraform provider type.

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (100%)

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

Correct Answer: B

Community vote distribution

B (100%)

How does Terraform manage most dependencies between resources?

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

Correct Answer: B

Community vote distribution

D (89%)

11%

What does running a terraform plan do?

- A. Imports all of your existing cloud provider resources to the state file
- B. Compares the state file to your Terraform code and determines if any changes need to be made
- C. Imports all of your existing cloud provider resources to your Terraform configuration file
- D. Compares your Terraform code and local state file to the remote state file in a cloud provider and determines if any changes need to be made

Correct Answer: D

Community vote distribution

B (88%)

13%

What are some benefits of using Sentinel with Terraform Cloud/Terraform Enterprise? (Choose three.)

- A. Policy-as-code can enforce security best practices
- B. You can restrict specific configurations on resources like "CIDR=0.0.0.0/0" not allowed
- C. You can enforce a list of approved AWS AMIs
- D. Sentinel Policies can be written in HashiCorp Configuration Language (HCL)
- E. You can check out and check in cloud access keys

Correct Answer: ABC

Community vote distribution

ABC (100%)

You want to share Terraform state with your team, store it securely, and provide state locking.

How would you do this? (Choose three.)

- A. Using the remote Terraform backend with Terraform Cloud / Terraform Enterprise.
- B. Using the local backend.
- C. Using the s3 terraform backend. The dynamodb_field option is not needed.
- D. Using an s3 terraform backend with an appropriate IAM policy and dynamodb_field option configured.
- E. Using the consul Terraform backend.

Correct Answer: ADE

Community vote distribution

ADE (86%)

14%

From which of these sources can Terraform import modules?

- A. Local path
- B. GitHub Repository
- C. Terraform Module Registry
- D. All of the above

Correct Answer: D

Community vote distribution

D (100%)

How would you output returned values from a child module?

- A. Declare the output in the root configuration
- B. Declare the output in the child module
- C. Declare the output in both the root and child module
- D. None of the above

Correct Answer: C

Community vote distribution

C (58%) B (42%)

You have decided to create a new Terraform workspace to deploy a development environment.

What is different about this workspace?

- A. It has its own state file
- B. It pulls in a different terraform.tfvars file
- C. It uses a different branch of code
- D. It uses a different backend

Correct Answer: A

Community vote distribution

A (86%) 14%

Any user can publish modules to the public Terraform Module Registry.

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (100%)

Which of these commands makes your code more human readable?

- A. terraform validate
- B. terraform output
- C. terraform plan
- D. terraform fmt

Correct Answer: A

Community vote distribution

D (88%) 13%

Infrastructure as Code (IaC) can be stored in a version control system along with application code.

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (100%)

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

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

Correct Answer: D

Community vote distribution

D (100%)

Sentinel policy-as-code is available in Terraform Enterprise.

- A. True
- B. False

Correct Answer: B

Community vote distribution

A (100%)

Before you can use Terraform's remote backend, you must first execute `terraform init`.

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (100%)

Which two steps are required to provision new infrastructure in the Terraform workflow? (Choose two.)

- A. Plan
- B. Apply
- C. Import
- D. Init
- E. Validate

Correct Answer: BD

Community vote distribution

BD (74%)

AB (26%)

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

Correct Answer: D

Community vote distribution

D (100%)

Which provisioner invokes a process on the machine running Terraform?

- A. remote-exec
- B. file
- C. local-exec
- D. null-exec

Correct Answer: C

Community vote distribution

C (80%)

A (20%)

_____ backends support state locking.

- A. Some
- B. No
- C. Only local
- D. All

Correct Answer: A

Community vote distribution

A (89%)

11%

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
- C. A script that contains a series of public cloud CLI commands
- D. A series of commands you enter into a public cloud console

Correct Answer: C

Community vote distribution

C (50%) B (50%)

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

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

Correct Answer: C

Community vote distribution

B (64%) C (29%) 7%

When should you write Terraform configuration files for existing infrastructure that you want to start managing with Terraform?

- A. Before you run terraform import
- B. You can import infrastructure without corresponding Terraform code
- C. Terraform will generate the corresponding configuration files for you
- D. After you run terraform import

Correct Answer: A

Community vote distribution

A (72%) D (28%)

Which command should you run to check if all code in a Terraform configuration that references multiple modules is properly formatted without making changes?

- A. terraform fmt -write=false
- B. terraform fmt -list -recursive
- C. terraform fmt -check -recursive
- D. terraform fmt -check

Correct Answer: C

Community vote distribution

C (100%)

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

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

Correct Answer: C

Community vote distribution

C (100%)

You are creating a reusable Terraform configuration and want to include a billing_dept tag so your Finance team can track team-specific spending on resources. Which of the following billing_dept variable declarations will allow you to do this?

- A.

```
variable "billing_dept" {
    optional = true
}
```
- B.

```
variable "billing_dept" {
    type = optional(string)
}
```
- C.

```
variable "billing_dept" {
    default = ""
}
```
- D.

```
variable "billing_dept" {
    type = default
}
```

Correct Answer: C

Community vote distribution

C (67%)

B (33%)

Which of these are secure options for storing secrets for connecting to a Terraform remote backend? (Choose two.)

- A. Inside the backend block within the Terraform configuration
- B. Defined in Environment variables
- C. Defined in a connection configuration outside of Terraform
- D. A variable file

Correct Answer: BC

Community vote distribution

BC (88%) 13%

You want to define a single input variable to capture configuration values for a server. The values must represent memory as a number, and the server name as a string.

Which variable type could you use for this input?

- A. List
- B. Object
- C. Map
- D. Terraform does not support complex input variables of different types

Correct Answer: B

Community vote distribution

B (100%)

What does Terraform not reference when running a `terraform apply -refresh-only`?

- A. Credentials
- B. State file
- C. Terraform resource definitions in configuration files
- D. Cloud provider

Correct Answer: C

Community vote distribution

C (67%) A (20%) 7%

Multiple team members are collaborating on infrastructure using Terraform and want to format their Terraform code following standard Terraform-style convention. How could they automatically ensure the code satisfies conventions?

- A. Run the terraform fmt command during the code linting phase of your CI/CD process
- B. Manually apply two spaces indentation and align equal sign "=" characters in every Terraform file (*.tf)
- C. Run the terraform validate command prior to executing terraform plan or terraform apply

Correct Answer: A

Community vote distribution

A (100%)

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

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

Correct Answer: D

Community vote distribution

D (100%)

In Terraform HCL, an object type of `object({ name=string, age=number })` would match this value:

- A.

```
{  
  name = "John"  
  age = fifty two  
}
```
- B.

```
{  
  name = "John"  
  age = 52  
}
```
- C.

```
{  
  name = John  
  age = fifty two  
}
```
- D.

```
{  
  name = John  
  age = 52  
}
```

Correct Answer: B

Community vote distribution

B (100%)

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 directory contains a `.terraform-lock.hcl` file.

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

- A. 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
- B. Terraform will use the version recorded in your lock file
- 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

Correct Answer: B

Community vote distribution

B (100%)

You must use different Terraform commands depending on the cloud provider you use.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

Define the purpose of state in Terraform.

- A. State stores variables and lets you quickly reuse existing code
- B. State lets you enforce resource configurations that relate to compliance policies
- C. State codifies the dependencies of related resources
- D. State maps real world resources to your configuration and keeps track of metadata

Correct Answer: D

Community vote distribution

D (100%)

Which of these actions will prevent two Terraform runs from changing the same state file at the same time?

- A. Refresh the state after running Terraform
- B. Delete the state before running Terraform
- C. Configure state locking for your state backend
- D. Run Terraform with parallelism set to 1

Correct Answer: C

Community vote distribution

C (100%)

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_PATH
- B. TF_VAR_log_level
- C. TF_LOG
- D. TF_VAR_log_path

Correct Answer: C

Community vote distribution

C (100%)

The Terraform binary version and provider versions must match each other in a single configuration.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

The .terraform.lock.hcl file tracks module versions.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (87%)

13%

You can develop a custom provider to manage its resources using Terraform.

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (78%)

B (22%)

Which of these is not a benefit of remote state?

- A. Keeping unencrypted sensitive information off disk
- B. Easily share reusable code modules
- C. Working in a team
- D. Delegate output to other teams

Correct Answer: B

Community vote distribution

B (54%) D (31%) A (15%)

When using multiple configurations of the same Terraform provider, what meta-argument must be included in any non-default provider configurations?

- A. depends_on
- B. alias
- C. id
- D. name

Correct Answer: B

Community vote distribution

B (100%)

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

Correct Answer: C

Community vote distribution

C (100%)

Which of the following is not considered a safe way to inject sensitive values into a Terraform Cloud workspace?

- A. Edit the state file directly just before running terraform apply
- B. Set the variable value on the command line with the -var flag
- C. Write the value to a file and specify the file with the -var-file flag

Correct Answer: A

Community vote distribution

A (75%)

C (25%)

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

Correct Answer: A

Community vote distribution

B (93%)

7%

You must initialize your working directory before running terraform validate.

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (100%)

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

- A. Manually update the state file
- B. Remove the resource definition from your file and run terraform apply -refresh-only
- C. Run terraform import
- D. It will happen automatically

Correct Answer: B

Community vote distribution

B (100%)

You created infrastructure outside of the Terraform workflow that you now want to manage using Terraform. Which command brings the infrastructure into Terraform state?

- A. terraform init
- B. terraform get
- C. terraform refresh
- D. terraform import

Correct Answer: D

Community vote distribution

D (100%)

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

Correct Answer: AD

Community vote distribution

D (73%)

AD (27%)

Which statement describes a goal of infrastructure as code?

- A. A pipeline process to test and deliver software
- B. Defining a vendor-agnostic API
- C. Write once, run anywhere
- D. The programmatic configuration of resources

Correct Answer: D

Community vote distribution

D (100%)

terraform validate confirms the syntax of Terraform files.

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (100%)

Which command adds existing resources into Terraform state?

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

Correct Answer: D

Community vote distribution

D (100%)

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

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

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`

Correct Answer: B

Community vote distribution

B (100%)

`terraform validate` confirms that your infrastructure matches the Terraform state file.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

A senior admin accidentally deleted some of your cloud instances. What does Terraform do when you run `terraform apply`?

- A. Build a completely brand new set of infrastructure
- B. Tear down the entire workspace infrastructure and rebuild it
- C. Rebuild only the instances that were deleted
- D. Stop and generate an error message about the missing instances

Correct Answer: C

Community vote distribution

C (100%)

terraform init creates an example main.tf file in the current directory.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

Which argument helps prevent unexpected updates when calling Terraform Registry modules?

- A. count
- B. source
- C. version
- D. lifecycle

Correct Answer: C

Community vote distribution

C (100%)

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

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (60%)

A (40%)

How would you output returned values from a child module in the Terraform CLI output?

- A. Declare the output in the root configuration
- B. Declare the output in the child module
- C. Declare the output in both the root and child module
- D. None of the above

Correct Answer: C

Community vote distribution

C (68%) B (32%)

What is the Terraform resource name of the following resource block?

```
resource "azurerm_resource_group" "dev" {  
    name = "test"  
    location = "westus"  
}
```

- A. azurerm_resource_group
- B. azurerm
- C. test
- D. dev

Correct Answer: A

Community vote distribution

D (100%)

When do you need to explicitly execute terraform refresh-only?

- A. Before every terraform plan
- B. Before every terraform apply
- C. Before every terraform import
- D. None of the above

Correct Answer: D

Community vote distribution

D (100%)

How is 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

Correct Answer: A

Community vote distribution

A (100%)

Which of the following are advantages of using infrastructure as code (IaC) instead of provisioning with a graphical user interface (GUI)? (Choose two.)

- A. Secures your credentials
- B. Lets your version, reuse, and share infrastructure configuration
- C. Provisions the same resources at a lower cost
- D. Reduces risk of operator error
- E. Prevents manual modifications to your resources

Correct Answer: BE

Community vote distribution

BD (71%) 14% 14%

One cloud configuration always maps to a single remote workspace.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

Multiple team members are collaborating on infrastructure using Terraform and want to format their Terraform code following standard Terraform-style convention.

How could they automatically ensure the code satisfies conventions?

- A. Replace all tabs with spaces
- B. Terraform automatically formats configuration on terraform apply
- C. Run terraform validate prior to executing terraform plan or terraform apply
- D. Use terraform fmt

Correct Answer: D

Community vote distribution

D (100%)

Which backend does the Terraform CLI use by default?

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

Correct Answer: D

Community vote distribution

D (100%)

The Terraform CLI will print output values from a child module after running terraform apply.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (83%)

A (17%)

What does terraform refresh-only modify?

- A. Your cloud infrastructure
- B. Your Terraform plan
- C. Your Terraform configuration
- D. Your state file

Correct Answer: D

Community vote distribution

D (100%)

What does terraform import do?

- A. Imports existing resources into the state file
- B. Imports all infrastructure from a given cloud provider
- C. Imports a new Terraform module
- D. Imports clean copies of tainted resources
- E. None of the above

Correct Answer: A

Community vote distribution

A (100%)

Which of the following is the correct way to pass the value in the variable num_servers into a module with the input server?

- A. servers = var(num_servers)
- B. \${var.num_servers}
- C. servers = num_servers
- D. servers = var.num_servers

Correct Answer: D

Community vote distribution

D (100%)

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 destroy aws_instance.ubuntu[]`
- B. `terraform apply rm aws_instance.ubuntu[]`
- C. `terraform state rm aws_instance.ubuntu[]`
- D. `terraform plan rm aws_instance.ubuntu[]`

Correct Answer: C

Community vote distribution

C (100%)

Before you can use a remote backend, you must first execute `terraform init`.

- A. True
- B. False

Correct Answer: A

Community vote distribution

A (100%)

What does running a `terraform plan` do?

- A. Compares your Terraform code and local state file to the remote state file in a cloud provider and determines if any changes need to be made
- B. Imports all of your existing cloud provider resources to the state file
- C. Installs all providers and modules referenced by configuration
- D. Compares the state file to your Terraform code and determines if any changes need to be made

Correct Answer: D

Community vote distribution

D (100%)

Which of the following statements about Terraform modules is not true?

- A. Modules must be publicly accessible
- B. You can call the same module multiple times
- C. A module is a container for one or more resources
- D. Modules can call other modules

Correct Answer: A

Community vote distribution

A (100%)

How can a ticket-based system slow down infrastructure provisioning and limit the ability to scale? (Choose two.)

- A. End-users have to request infrastructure changes
- B. Ticket based systems generate a full audit trail of the request and fulfillment process
- C. Users can access a catalog of approved resources from drop down lists in a request form
- D. The more resources your organization needs, the more tickets your infrastructure team has to process

Correct Answer: AD

Community vote distribution

AD (100%)

How do you specify a module's version when publishing it to the public Terraform Module Registry?

- A. Configure it in the module's Terraform code
- B. Mention it on the module's configuration page on the Terraform Module Registry
- C. The Terraform Module Registry does not support versioning modules
- D. Tag a release in the associated repo

Correct Answer: D

Community vote distribution

D (100%)

What Terraform command always causes a state file to be updated with changes that might have been made outside of Terraform?

- A. terraform plan -refresh-only
- B. terraform show -json
- C. terraform apply -lock=false
- D. terraform plan -target-state

Correct Answer: D

Community vote distribution

A (100%)

Which command must you first run before performing further Terraform operations in a working directory?

- A. terraform plan
- B. terraform workspace
- C. terraform init
- D. terraform import

Correct Answer: C

Community vote distribution

C (100%)

Which command lets you experiment with Terraform expressions?

- A. terraform console
- B. terraform validate
- C. terraform env
- D. terraform test

Correct Answer: A

Community vote distribution

A (100%)

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

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

Correct Answer: D

Community vote distribution

D (100%)

When do changes invoked by terraform apply take effect?

- A. After Terraform has updated the state file
- B. Once the resource provider has fulfilled the request
- C. Immediately
- D. None of the above are correct

Correct Answer: D

Community vote distribution

B (100%)

What is the workflow for deploying new infrastructure with Terraform?

- A. Write Terraform configuration, run terraform init to initialize the working directory or workspace, and run terraform apply
- B. Write Terraform configuration, run terraform show to view proposed changes, and terraform apply to create new infrastructure
- C. Write Terraform configuration, run terraform apply to create infrastructure, use terraform validate to confirm Terraform deployed resources correctly
- D. Write Terraform configuration, run terraform plan to initialize the working directory or workspace, and terraform apply to create the infrastructure

Correct Answer: A

Community vote distribution

A (100%)

Which of these are features of Terraform Cloud? (Choose two.)

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

Correct Answer: AB

Community vote distribution

AB (100%)

Which option can not keep secrets out of Terraform configuration files?

- A. A shared credential file
- B. Mark the variable as sensitive
- C. Environment Variables
- D. A -var flag

Correct Answer: D

Community vote distribution

B (100%)

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 providers
- E. None of the above

Correct Answer: E

Community vote distribution

E (75%)

D (25%)

Which Terraform command checks that your configuration syntax is correct?

- A. terraform fmt
- B. terraform validate
- C. terraform init
- D. terraform show

Correct Answer: B

Community vote distribution

B (100%)

terraform validate uses provider APIs to verify your infrastructure settings.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

You add a new provider to your configuration and immediately run terraform apply in the CLI using the local backend. Why does the apply fail?

- A. Terraform needs you to format your code according to best practices first
- B. Terraform requires you to manually run terraform plan first
- C. The Terraform CLI needs you to log into Terraform Cloud first
- D. Terraform needs to install the necessary plugins first

Correct Answer: D

Community vote distribution

D (100%)

Which of these statements about Terraform Cloud workspaces is false?

- A. They can securely store cloud credentials
- B. They have role-based access controls
- C. You must use the CLI to switch between workspaces
- D. Plans and applies can be triggered via version control system integrations

Correct Answer: C

Community vote distribution

C (100%)

What value does the Terraform Cloud private registry provide over the public Terraform Module Registry?

- A. The ability to restrict modules to members of Terraform Cloud or Enterprise organizations
- B. The ability to share modules publicly with any user of Terraform
- C. The ability to tag modules by version or release
- D. The ability to share modules with public Terraform users and members of Terraform Cloud Organizations

Correct Answer: A

Community vote distribution

A (100%)

Terraform providers are part of the Terraform core binary.

- A. True
- B. False

Correct Answer: B

Community vote distribution

B (100%)

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

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

Correct Answer: C

Community vote distribution

C (100%)

Where does the Terraform local backend store its state?

- A. In the `terraform.tfstate` file
- B. In the `.terraform` directory
- C. In the `terraform.tfstate` directory
- D. In the `.terraform.lock.hcl` file

Correct Answer: A

Community vote distribution

A (100%)

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

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

Correct Answer: B

Community vote distribution

B (100%)

Your risk management organization requires that new AWS S3 buckets must be private and encrypted at rest. How can Terraform Cloud automatically and proactively enforce this security control?

- A. Auditing cloud storage buckets with a vulnerability scanning tool
- B. With a Sentinel policy, which runs before every apply
- C. With an S3 module with proper settings for buckets
- D. By adding variables to each Terraform Cloud workspace to ensure these settings are always enabled

Correct Answer: B

If you don't use the local backend, where does Terraform save resource state?

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

Correct Answer: A

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" {  
    value = aws_instance.main.private_ip  
}
```
- B.

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

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

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

Correct Answer: A

Community vote distribution

A (100%)

When does Sentinel enforce policy logic during a Terraform Cloud run?

- A. Before the plan phase
- B. During the plan phase
- C. Before the apply phase
- D. After the apply phase

Correct Answer: C

Community vote distribution

C (100%)

What is terraform refresh-only intended to detect?

- A. Empty state files
- B. Corrupt state files
- C. Terraform configuration code changes
- D. State file drift

Correct Answer: D

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

Correct Answer: A

Community vote distribution

A (100%)

Why would you use the -replace flag for terraform apply?

- A. You want to force Terraform to destroy a resource on the next apply
- B. You want Terraform to ignore a resource on the next apply
- C. You want to force Terraform to destroy and recreate a resource on the next apply
- D. You want Terraform to destroy all the infrastructure in your workspace

Correct Answer: C

Community vote distribution

C (100%)

You can configure Terraform to log to a file using the TF_LOG environment variable.

- A. True
- B. False

Correct Answer: A

Community vote distribution

B (100%)

When does Terraform create the .terraform.lock.hcl file?

- A. After your first terraform plan
- B. After your first terraform apply
- C. After your first terraform init
- D. Whenever you enable state locking

Correct Answer: C

You have been working in a Cloud provider account that is shared with other team members. You previously used Terraform to create a load balancer that is listening on port 80. After some application changes, you updated the Terraform code to change the port to 443.

You run `terraform plan` and see that the execution plan shows the port changing from 80 to 443 like you intended, and step away to grab some coffee.

In the meantime, another team member manually changes the load balancer port to 443 through the Cloud provider console before you get back to your desk.

What will happen when you `terraform apply` upon returning to your desk?

- A. Terraform will fail with an error because the state file is no longer accurate.
- B. Terraform will change the load balancer port to 80, and then change it back to 443.
- C. Terraform will not make any changes to the Load Balancer and will update the state file to reflect any changes made.
- D. Terraform will recreate the load balancer.

Correct Answer: D

Community vote distribution

C (100%)

Which of the following is not an action performed by `terraform init`?

- A. Create template configuration files
- B. Initialize a configured backend
- C. Retrieve the source code for all referenced modules
- D. Load required provider plugins

Correct Answer: A

Get IT Certification

Unlock free, top-quality video courses on ExamTopics with a simple registration. Elevate your learning journey with our expertly curated content. Register now to access a diverse range of educational resources designed for your success. Start learning today with ExamTopics!

[Start Learning for free](#)