Desafío # 8

Realizado por: Joselin Teixeira
Fecha de entrega: 14/08/2024

Escenario:

En nuestro sprint anterior trabajamos en modularizar nuestro proyecto de Ansible. Luego del éxito de este cambio el equipo identificó que existen playbook que solo quedan en el entorno local de los desarrolladores y es por esto por lo que necesitamos crear un pipeline CI/CD para forzar que la única manera de ejecutar e interactuar de ejecutar los playbook en los distintos entornos sea desde un código que sea leído de un repo y ejecutado desde un controlador de Jenkins.

Esta mejora en el proceso busca:

- Aumentar la seguridad ya que las credenciales de acceso solo estarán disponibles en el controlador de Jenkins y no será necesario que un desarrollador disponga de las credenciales de forma local.
- Permite forzar a los desarrolladores a crear sus entornos de trabajo local evitando que el proceso de desarrollo se ejecute en entornos compartidos.
- Todos los cambios podrán ser gestionados como una pieza de software y podrán pasar por un proceso de revisión de PR.
- Mantener la estrategia de branches que vienen utilizando:
  - DEV: entorno de desarrollo, es un entorno donde se llevan cambios frecuentes y los miembros del equipo tienen mayor libertad para ver los cambios en equipos reales.
  - STAGING: es un entorno donde se integran y prueban todos los cambios, los miembros del equipo no cuentan con acceso a los equipos y solo reciben feedback mediante las herramientas CI/CD y los cambios son aplicados solo mediante un PR (pull request).
  - MAIN: es nuestro entorno productivo, no contamos acceso y los cambios

Requisitos:

1. Realizar la PoC aplicando todos los pasos detallados en el post propuesto.
2. Configurar un repositorio propio para que pueda alojar el proyecto.
3. Crear unas credenciales en nuestra sandbox de AWS Academy
4. Crear una cuenta en Terraform Cloud (no requiere tarjeta de crédito)

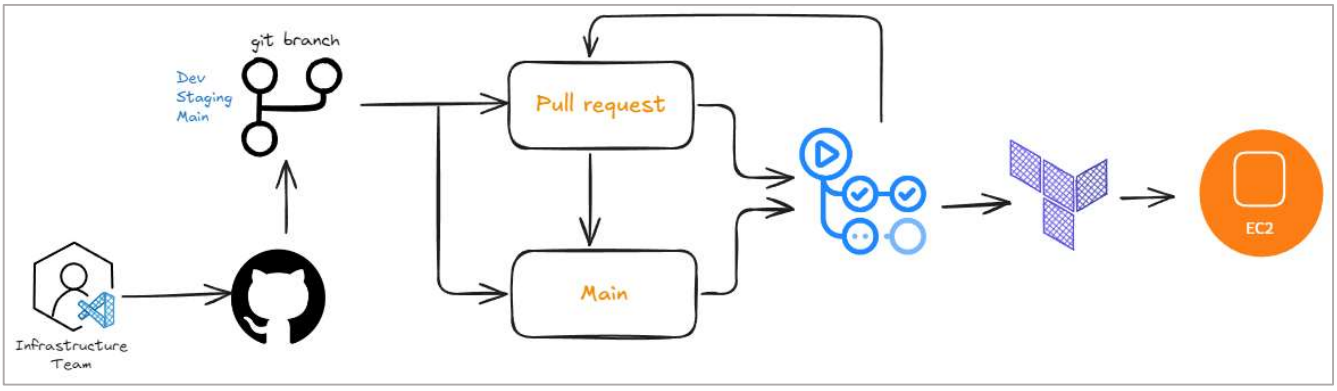
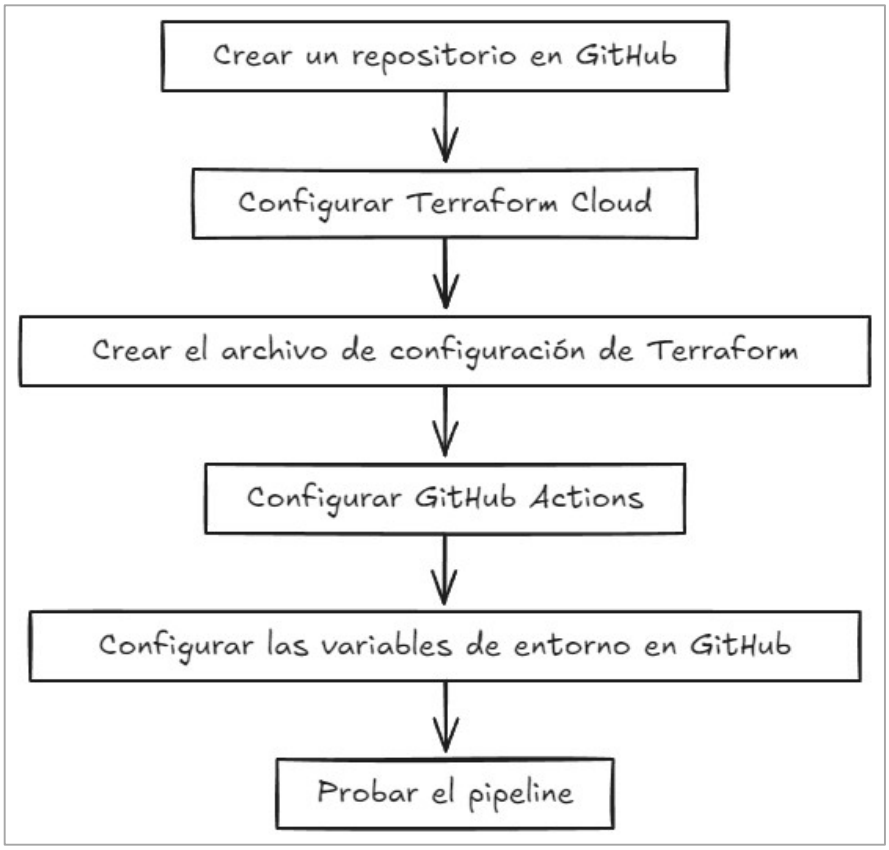
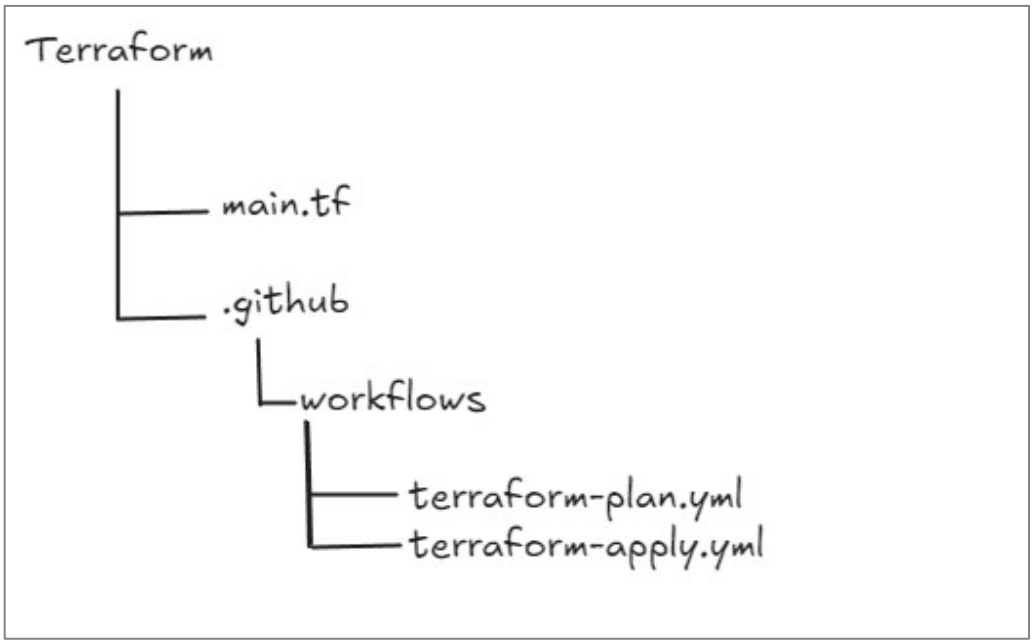


Diagrama de flujo



Crear Repositorio en GitHub

Crearemos un flujo de trabajo utilizando GitHub Actions y Terraform para implementar un servidor web de acceso público, crearemos la siguiente estructura en nuestro repositorio de GitHub:

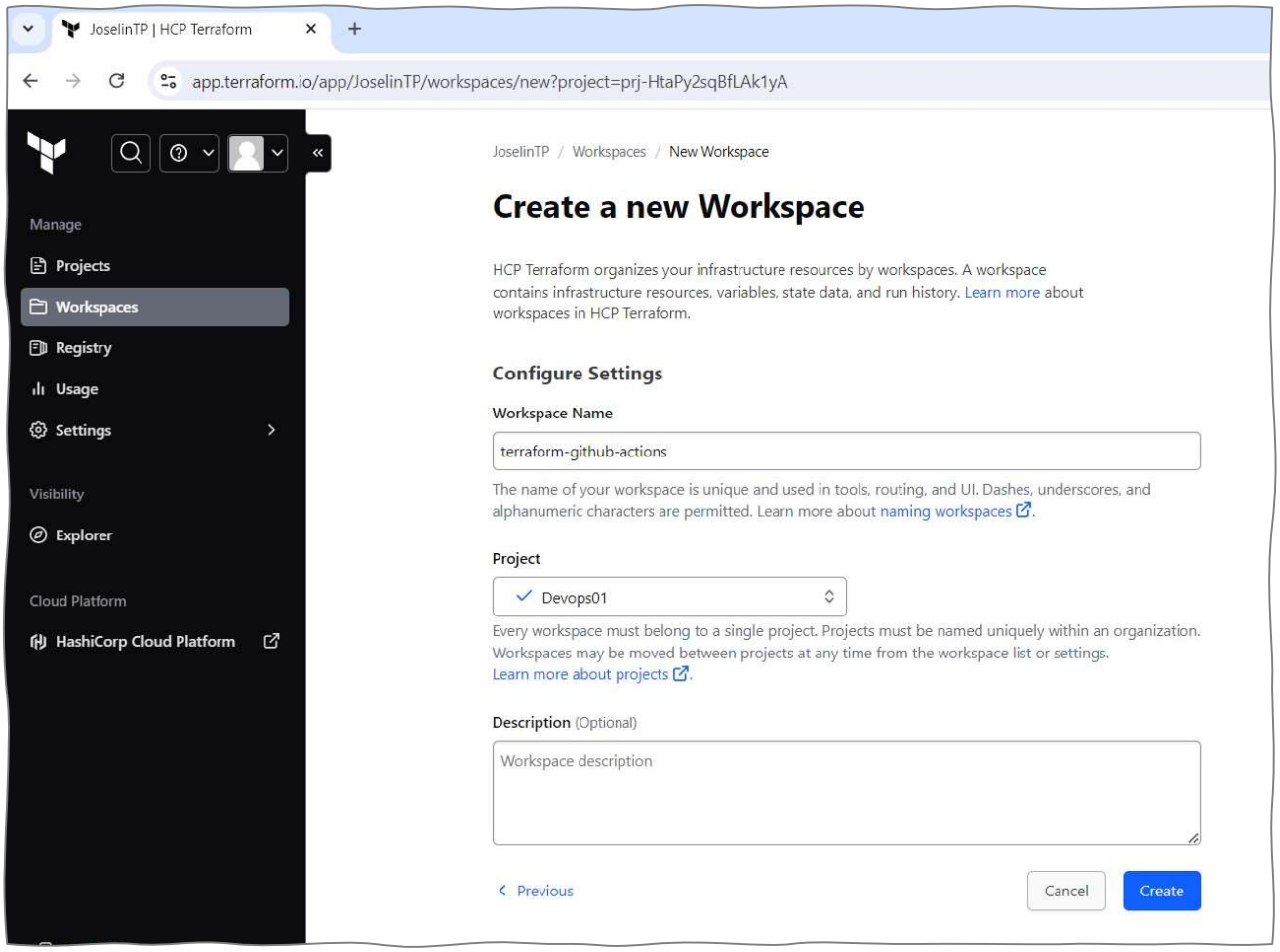


Configurar Terraform Cloud

Crearemos un Nuevo Espacio de Trabajo **[terraform-github-actions]**:

Una vez que nuestra cuenta esté configurada, podemos comenzar a crear "espacios de trabajo" **[workspace]** para gestionar las configuraciones de Terraform.

- Vamos a la sección de "Workspaces" (Espacios de Trabajo) en la barra lateral.
- Hacemos clic en el botón "New Workspace" (Nuevo Espacio de Trabajo).
- Elegimos un nombre para nuestro espacio de trabajo **[terraform-github-actions]** y presionamos el botón [Create]



Una vez creado el Workspace (Espacios de Trabajo) configuramos las variables necesarias para la configuración de Terraform en el espacio de trabajo.

Para crear las variables de entorno AWS_ACCESS_KEY_ID y AWS_SECRET_ACCESS_KEY seguiremos estos pasos:

Paso 1: Seleccionamos el Workspace

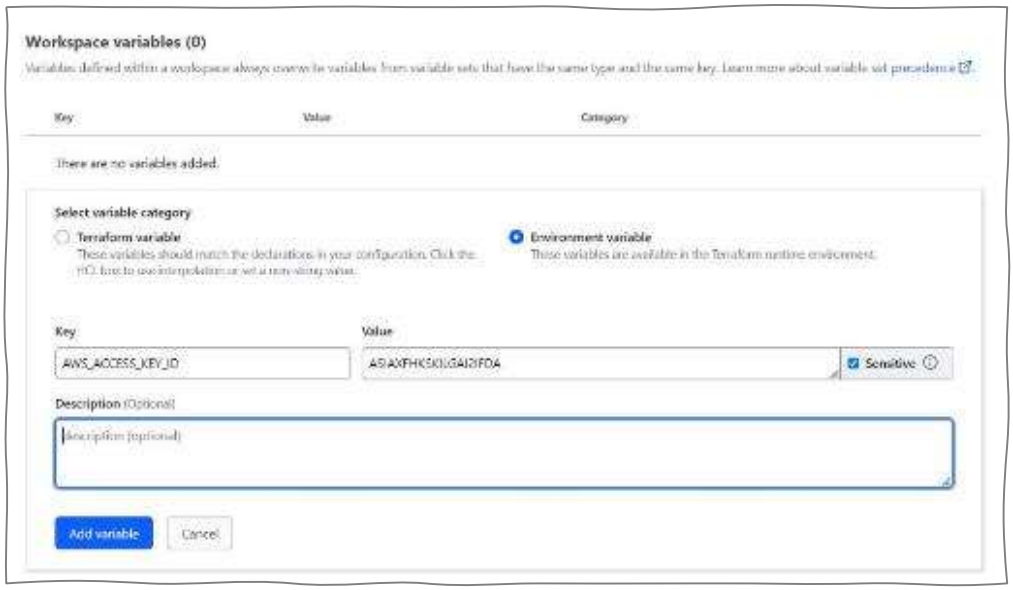
1. En el panel de navegación, selecciona **Workspaces**.
2. Hacemos clic en el workspace **[terraform-github-actions].**

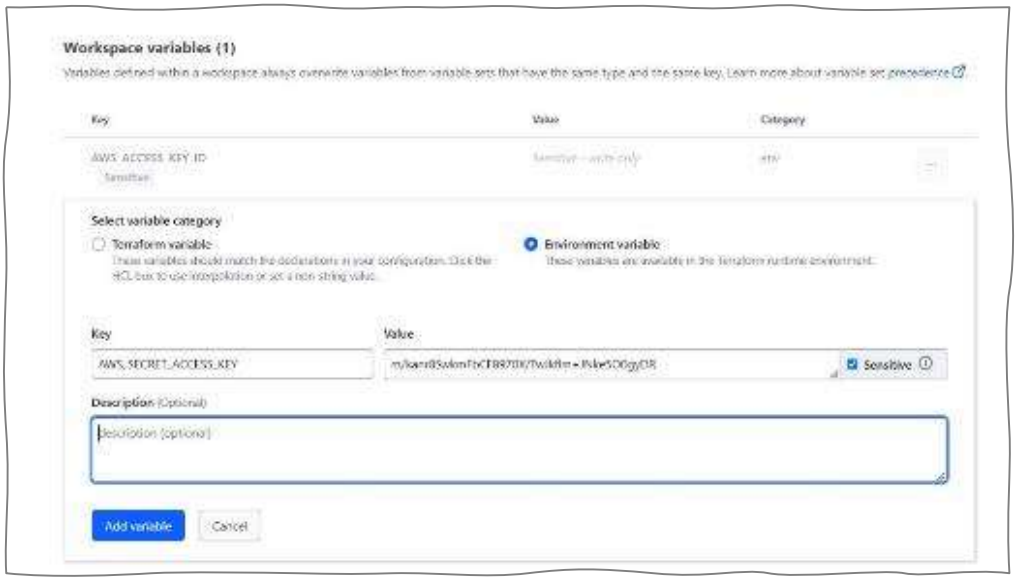
Paso 2: Configuramos Variables de Entorno

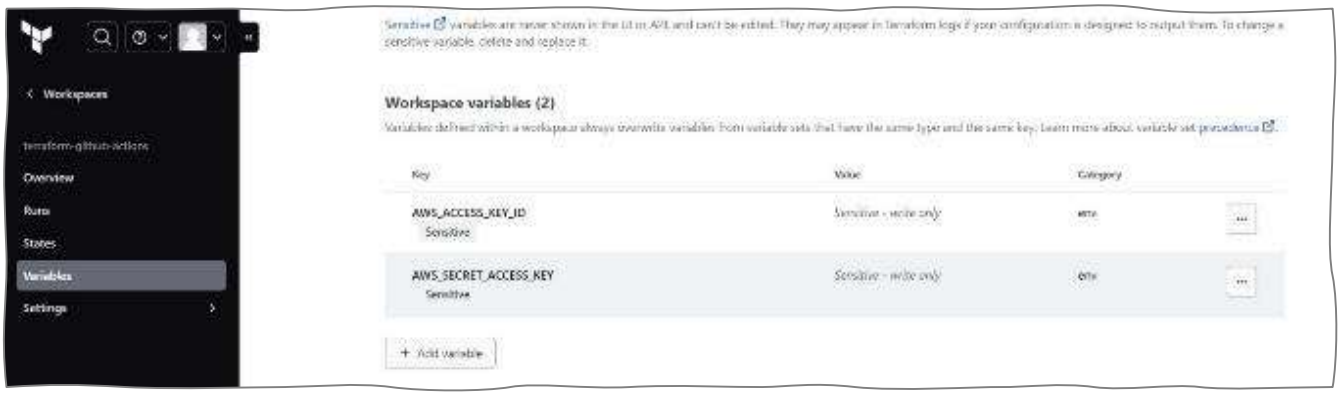
1. Dentro del workspace, optamos por la pestaña **Variables**.
2. Aquí seleccionamos: **Environment Variables**.

Paso 3: Agregar Variables de Entorno

1. En la sección **Environment Variables**, hacemos clic en **+ Add Variable**.
2. Para la primera variable:
    - **Key**: AWS_ACCESS_KEY_ID.
    - **Value**: Ingresamos la Access Key ID de AWS.
    - Marca la opción **Sensitive** para que no se muestre en la interfaz.
    - Haz clic en **Save variable**.
3. Repetimos el proceso para la segunda variable:
    - **Key**: AWS_SECRET_ACCESS_KEY.
    - **Value**: Ingresamos la Secret Access Key de AWS.
    - Marcamos la opción **Sensitive** y guardamos la variable.



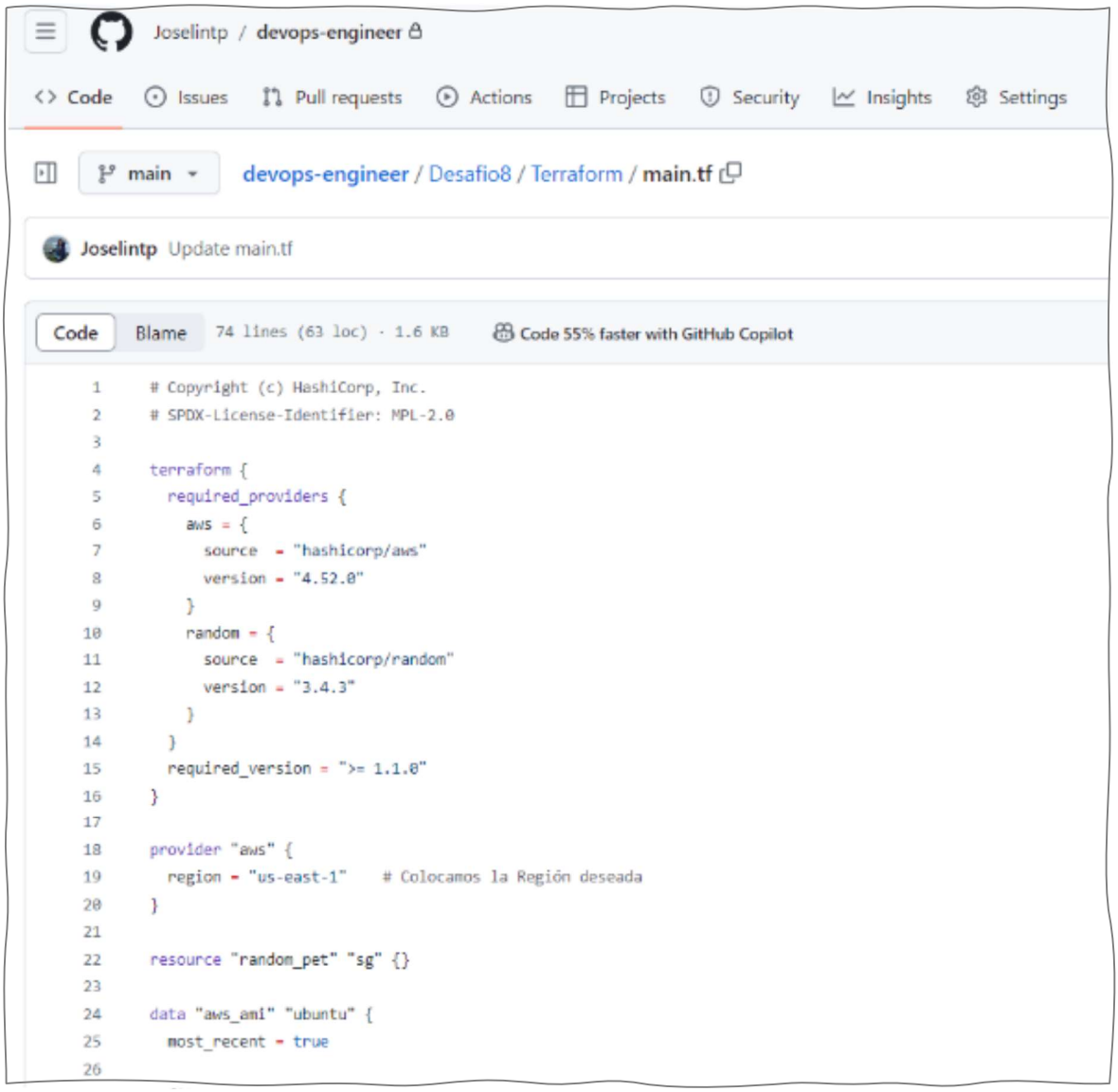




Crear archivo de configuración Terraform

Añadiremos el archivo a nuestro repositorio de GitHub: `Desafio8/Terraform/main.tf`

Este archivo contiene la configuración de Terraform para implementar una instancia EC2 de acceso público

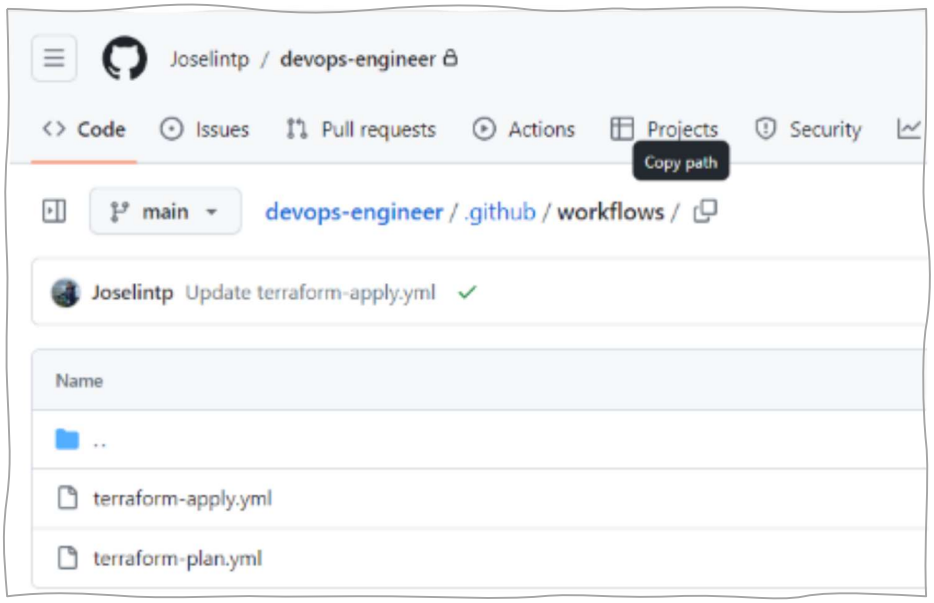


Configurar Github Actions

Estableceremos los archivos de flujo de trabajo:

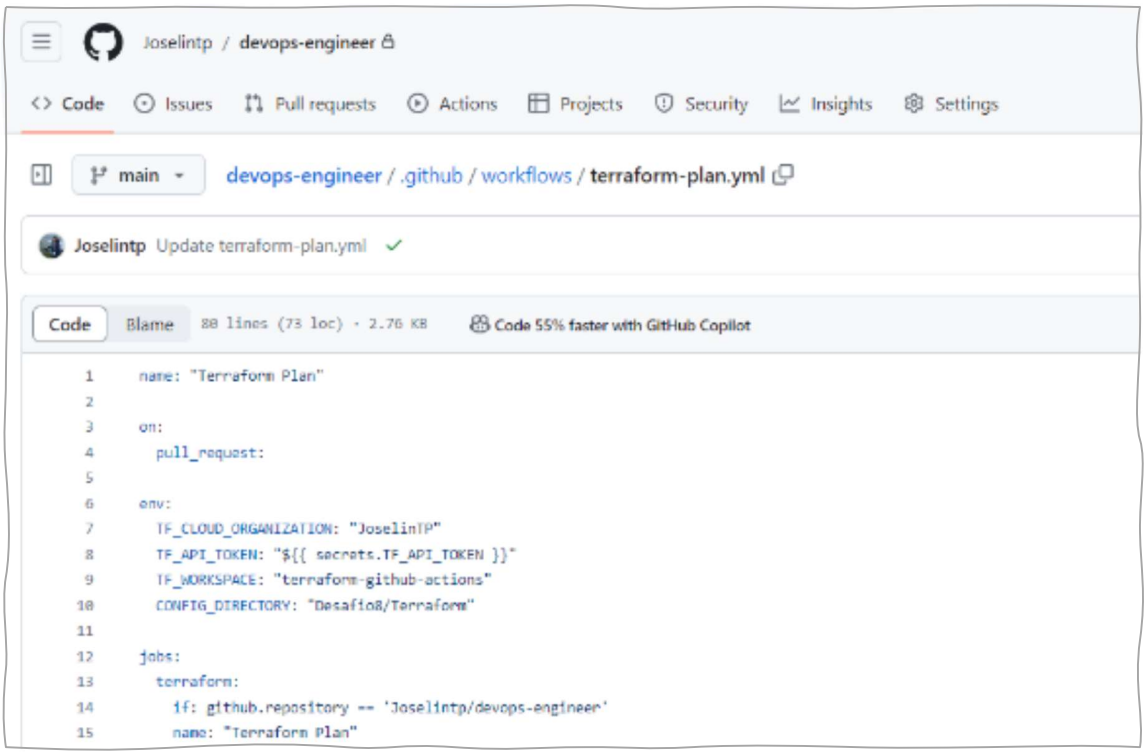
`.github/workflows/terraform-plan.yml (que ejecuta el plan de Terraform)`

`.github/workflows/terraform-apply.yml (que ejecuta terraform apply)`



Archivo terraform-plan

El archivo `terraform-plan.yml` define un flujo de trabajo de GitHub Actions que ejecuta un plan de Terraform en un espacio de trabajo de Terraform Cloud cada vez que se crea un pull request en el repositorio.



A continuación, se detalla cada sección de dicho archivo:

a) **name**: Define el nombre del flujo de trabajo como "Terraform Plan".

b) **on**: Especifica que el flujo de trabajo se activará cuando se cree un pull request en el repositorio.

c) **env**: Define variables de entorno utilizadas en el flujo de trabajo:

- TF_CLOUD_ORGANIZATION: El nombre de la organización de Terraform Cloud. "JoselinTP"
- TF_API_TOKEN: El token de API de Terraform Cloud, que se obtiene de los secrets de GitHub.
- TF_WORKSPACE: El nombre del espacio de trabajo de Terraform Cloud donde se ejecutará el plan. "terraform-github-actions"
- CONFIG_DIRECTORY: La ruta al directorio que contiene la configuración de Terraform. "Desafio8/Terraform"

d) **jobs**: Define un trabajo llamado "terraform" que se ejecutará cuando se active el flujo de trabajo.

e) **if**: Agrega una condición para que se ejecute en el repositorio de 'Joselintp/devops-engineer'

f) **name**: Establece el nombre del trabajo como "Terraform Plan".

g) **runs-on**: Especifica que el trabajo se ejecutará en una máquina virtual de Ubuntu.

h) **permissions**: Otorga permisos de lectura al contenido del repositorio y de escritura a los pull requests.

i) **steps**: Define los pasos a seguir dentro del trabajo:

- **Checkout**: Descarga el código fuente del repositorio.
- **Upload Configuration**: Carga la configuración de Terraform al espacio de trabajo de Terraform Cloud.
- **Create Plan Run**: Crea un plan de ejecución en Terraform Cloud.
- **Get Plan Output**: Obtiene los resultados del plan de ejecución.
- **Update PR**: Agrega un comentario al pull request con los resultados del plan.

En resumen, este archivo se encarga de cargar la configuración de Terraform en la Cloud, crear un plan de ejecución y luego obtener los resultados del plan.

El archivo terraform-apply.yml

Este `terraform-apply.yml` archivo se utiliza para automatizar la aplicación de configuraciones de Terraform en un entorno de nube.

El archivo está dividido en varias secciones clave:

1. **Nombre del Workflow**

```
name: "Terraform Apply"
```

2. Eventos que lo disparan

```
on:
  push:
    branches:
      - main
```

3. Variables de entorno

```
env:
  TF_CLOUD_ORGANIZATION: "JoselinTP"
  TF_API_TOKEN: "${{ secrets.TF_API_TOKEN }}"
  TF_WORKSPACE: "terraform-github-actions"
  CONFIG_DIRECTORY: "Desafio8/Terraform" # Ruta relativa al directorio que contiene main.tf
```

Aquí se definen varias variables de entorno que se utilizarán en los pasos del trabajo:

- **TF_CLOUD_ORGANIZATION**: El nombre de la organización en Terraform Cloud.
- **TF_API_TOKEN**: Un token de API que se almacena de forma segura en los secretos de GitHub para autenticar las solicitudes a Terraform Cloud.
- **TF_WORKSPACE**: El espacio de trabajo de Terraform donde se aplicarán las configuraciones.
- **CONFIG_DIRECTORY**: La ruta relativa al directorio que contiene el archivo main.tf, que es el archivo principal de configuración de Terraform.

4. **Definición de trabajos (jobs)**

```
jobs:
  terraform:
    if: github.repository == 'Joselintp/devops-engineer'
    name: "Terraform Apply"
    runs-on: ubuntu-latest
```

Aquí se define un trabajo llamado terraform que solo se ejecutará si el repositorio es [Joselintp/devops-engineer]. Este trabajo se ejecutará en un entorno de Ubuntu más reciente.

5. Pasos dentro de los trabajos

Los siguientes pasos son las acciones que se ejecutarán dentro del trabajo Terraform:

Paso 1: Checkout

```
text
- name: Checkout
  uses: actions/checkout@v4
```

Este paso utiliza la acción de checkout para clonar el repositorio en el entorno de ejecución. Esto permite que los siguientes pasos tengan acceso a los archivos del repositorio.

Paso 2: Upload Configuration

```
text
- name: Upload Configuration
```

```
  uses: hashicorp/tfc-workflows-github/actions/upload-configuration@v1.0.0
  id: apply-upload
  with:
    workspace: ${{ env.TF_WORKSPACE }}
    directory: ${{ env.CONFIG_DIRECTORY }}
```

Este paso sube la configuración de Terraform al workspace especificado en Terraform Cloud. Se utiliza la acción upload-configuration de HashiCorp, y se le pasa el directorio que contiene los archivos de configuración.

Paso 3: Create Apply Run

```
text
- name: Create Apply Run
  uses: hashicorp/tfc-workflows-github/actions/create-run@v1.0.0
  id: apply-run
  with:
    workspace: ${{ env.TF_WORKSPACE }}
    configuration_version: ${{ steps.apply-upload.outputs.configuration_version_id }}
```

Se crea una ejecución de aplicación (apply run) en Terraform Cloud. Este paso utiliza la acción create-run y toma como entrada el ID de la versión de configuración que se obtuvo en el paso anterior.

Paso 4: Apply

```
text
- name: Apply
  uses: hashicorp/tfc-workflows-github/actions/apply-run@v1.0.0
  if: fromJSON(steps.apply-run.outputs.payload).data.attributes.actions.IsConfirmable
  id: apply
  with:
    run: ${{ steps.apply-run.outputs.run_id }}
    comment: "Apply Run from GitHub Actions CI ${{ github.sha }}"
```

Finalmente, este paso aplica la configuración de Terraform en el workspace. Se utiliza la acción apply-run y solo se ejecuta si la ejecución es confirmable, lo que se verifica mediante una condición. Se añade un comentario que incluye el SHA del commit actual para rastrear la ejecución.

Este archivo de configuración de GitHub Actions permite automatizar el proceso de aplicar configuraciones de Terraform en un entorno de nube, asegurando que los cambios en la rama main se reflejen automáticamente en la infraestructura definida por Terraform. Cada paso está diseñado para interactuar con Terraform Cloud, haciendo que el proceso sea eficiente y seguro.

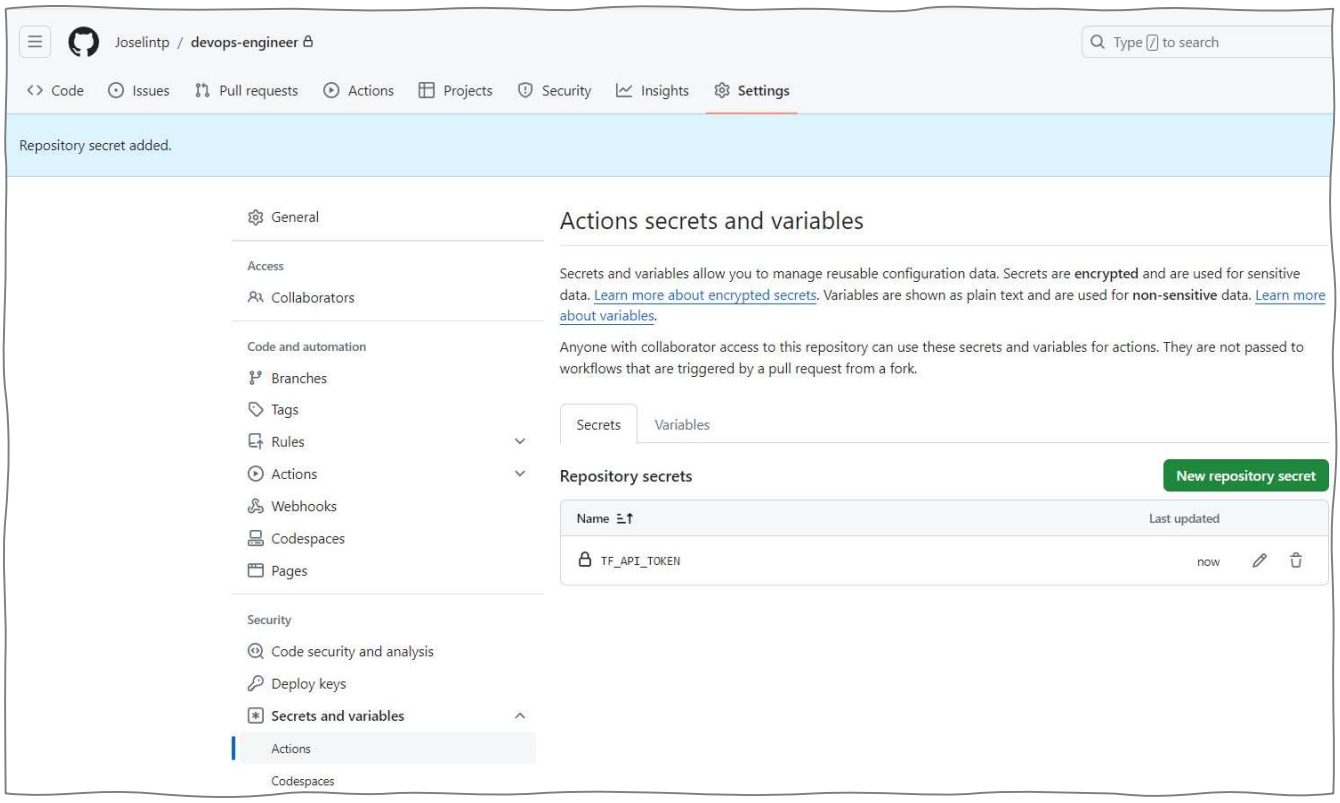
Referencias:
Documentación oficial de actions/checkout

Configurar Variables de Entorno GitHub

1. Vamos a nuestro repositorio en GitHub y seleccionamos **Settings**.
2. En el menú de la izquierda, seleccionamos **Secrets and variables** > **Actions**.

3. Hacemos clic en la Ficha **Secrets** y presionamos el botón: **New repository secret**. Luego crearemos la siguiente variable:
    - TF_API_TOKEN: Será el token de API de Terraform Cloud.

Es importante guardar el token en un lugar seguro

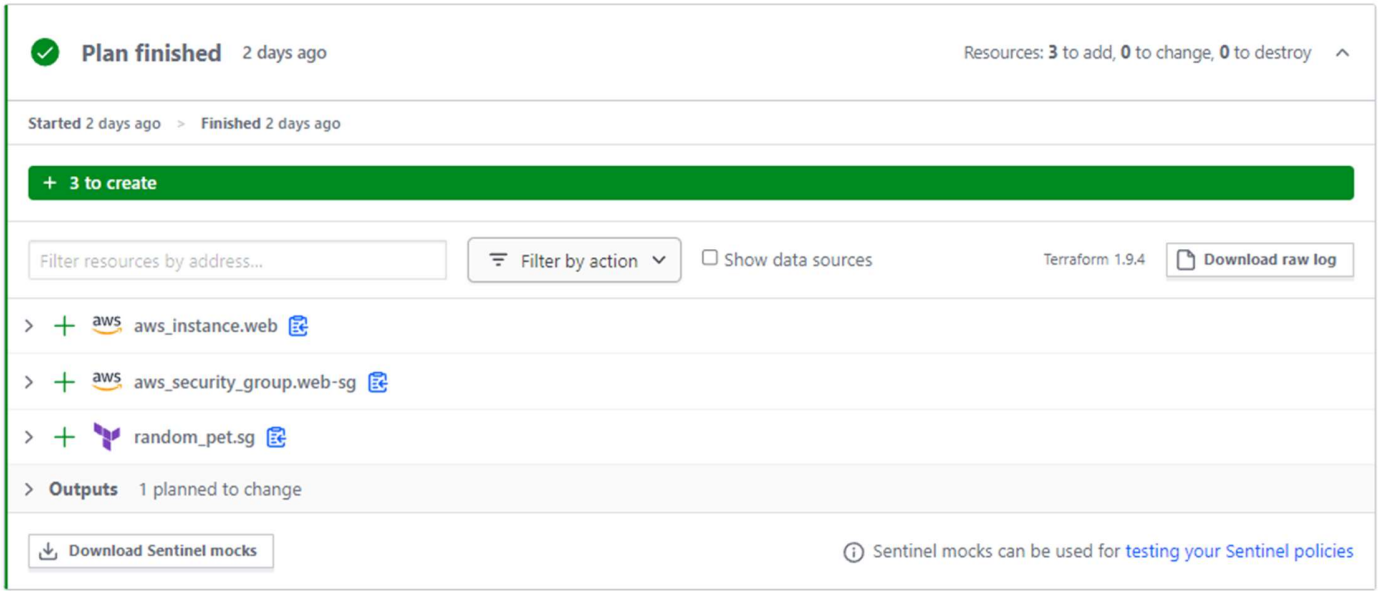


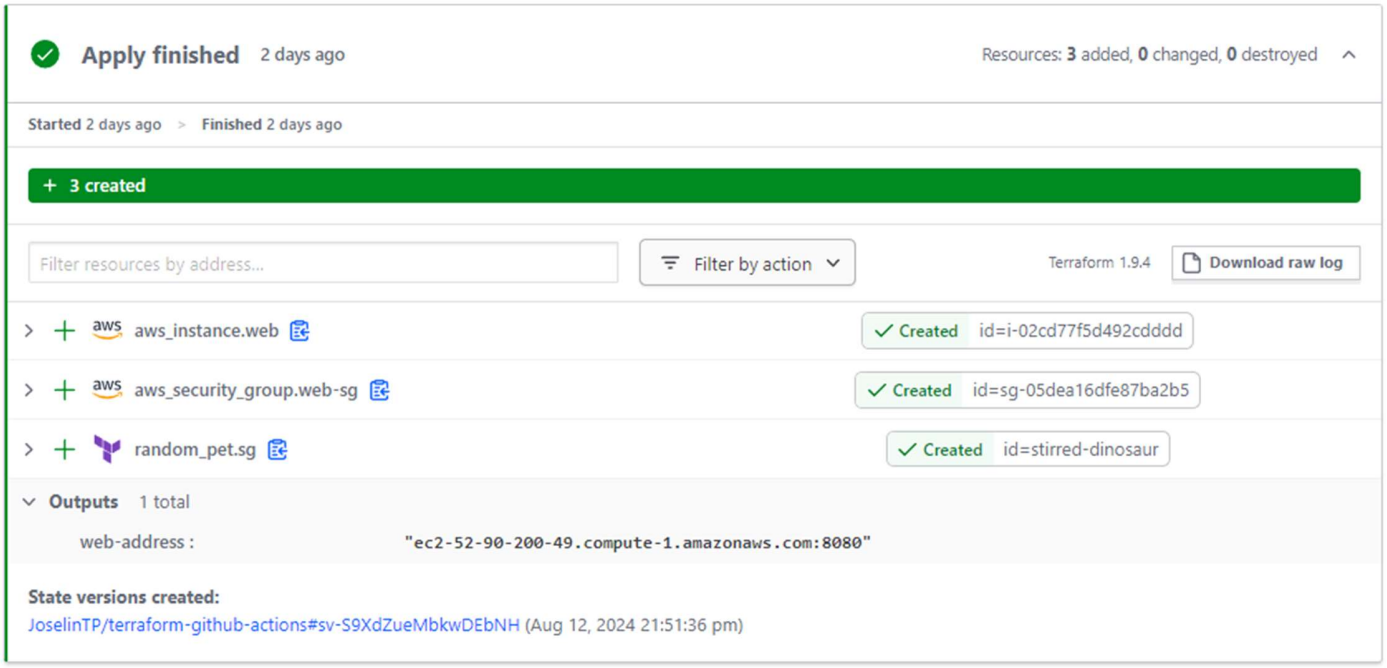
Probar el pipeline

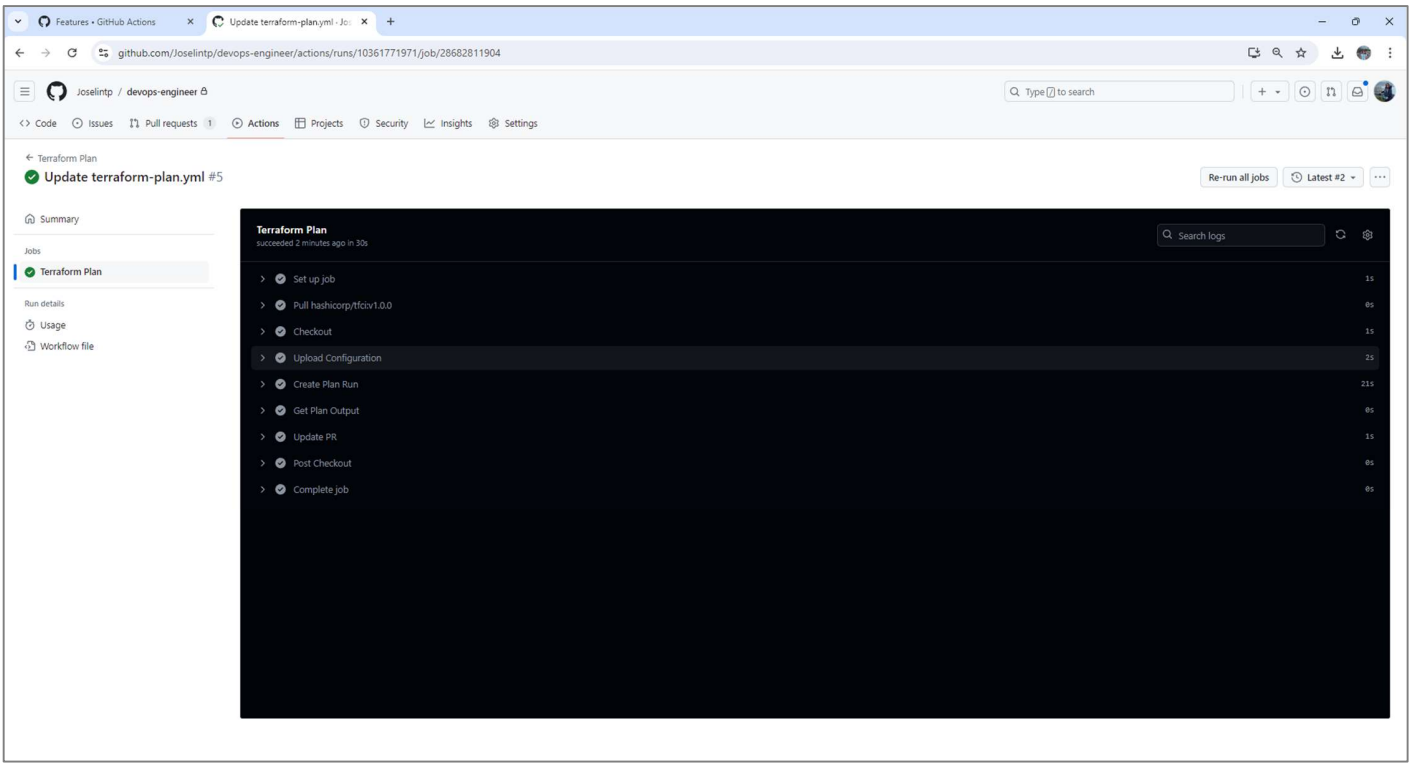
1. Realizamos un commit en la rama main con cambios en archivo main.tf.
2. Creamos un pull request para fusionar los cambios.

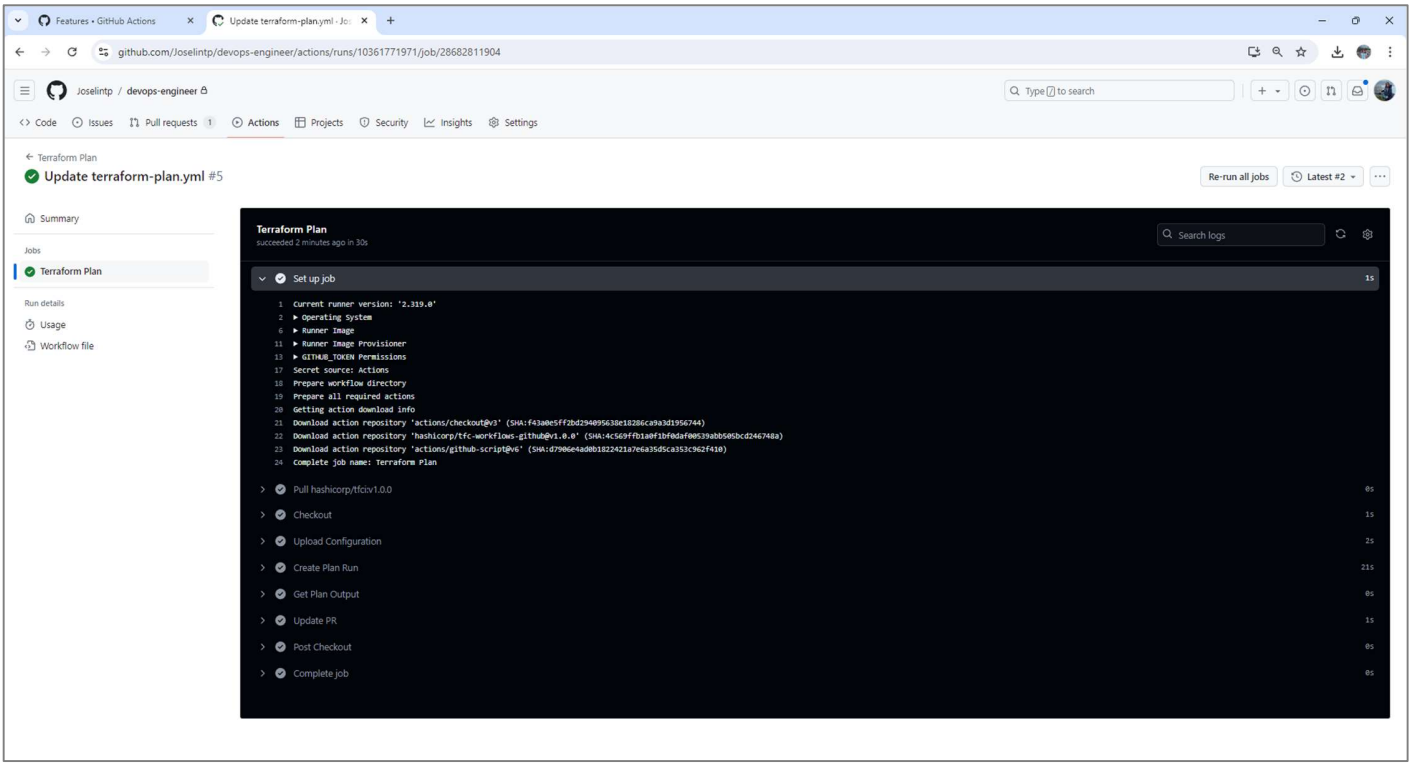
3. Finalmente verificamos que el pipeline de GitHub Actions se ejecute correctamente, realizando la inicialización, validación, planificación y aplicación de los cambios en Terraform Cloud.

Evidencia de pruebas exitosas






Features • GitHub Actions
Update terraform-plan.yml · Jo
github.com/Joselintp/devops-engineer/actions/runs/10361771971/job/28682811904
Joselintp / devops-engineer
Type / to search
Code
Issues
Pull requests 1
Actions
Projects
Security
Insights
Settings
Terraform Plan
Update terraform-plan.yml #5
Re-run all jobs
Latest #2
Summary
Jobs
Terraform Plan
Run details
Usage
Workflow file
Terraform Plan
succeeded 2 minutes ago in 30s
Search logs
Set up job 1s
Pull hashicorp/tfciv1.0.0 0s
Checkout 1s
Upload Configuration 2s
Create Plan Run 21s
Get Plan Output 0s
Update PR 1s
Post Checkout 0s
Complete job 0s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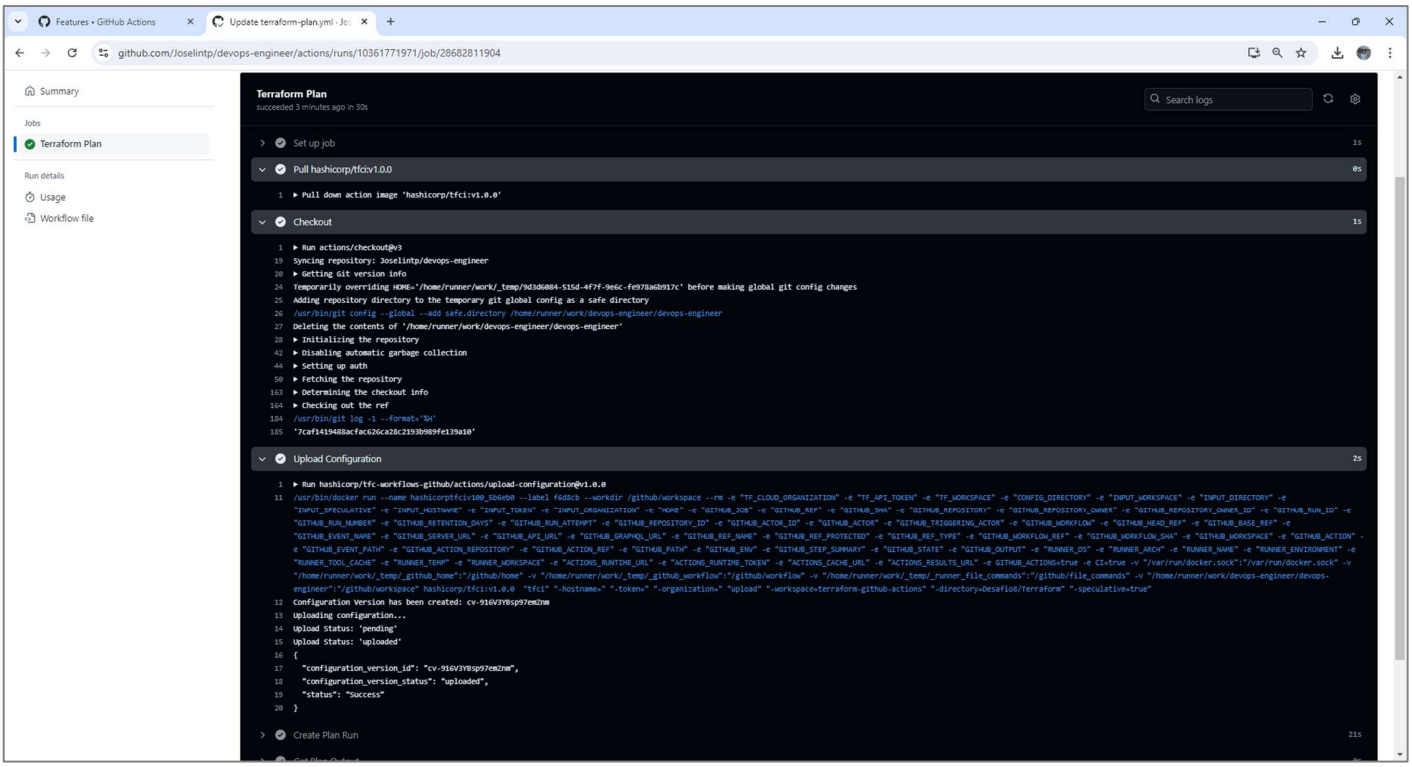
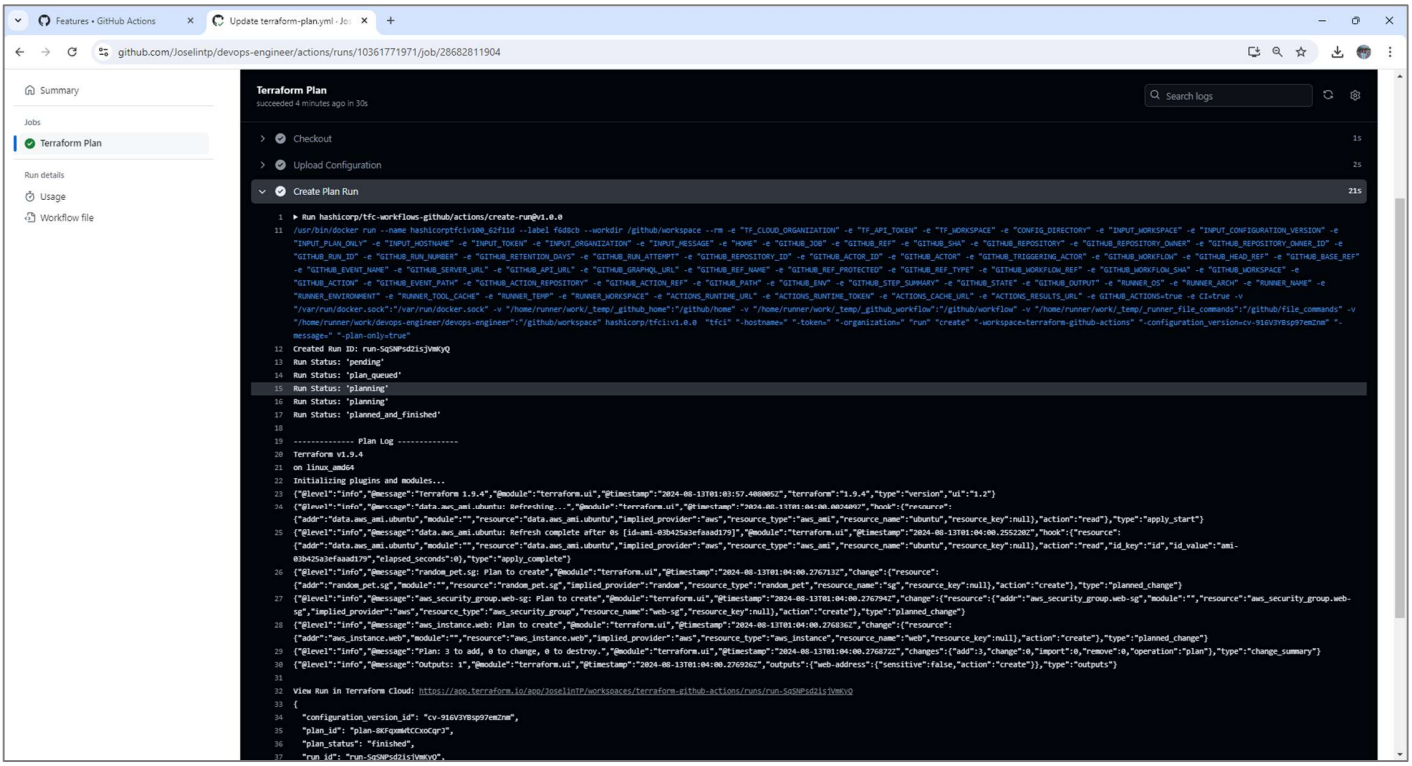
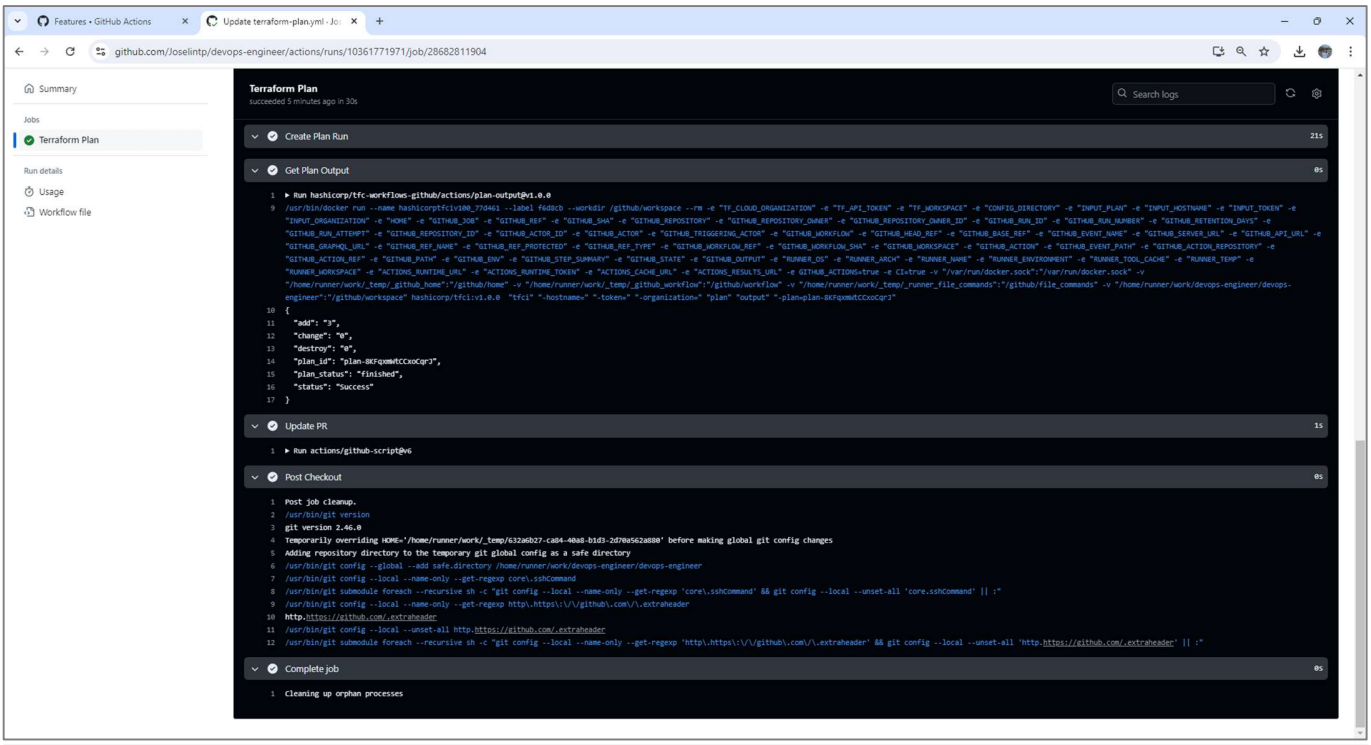
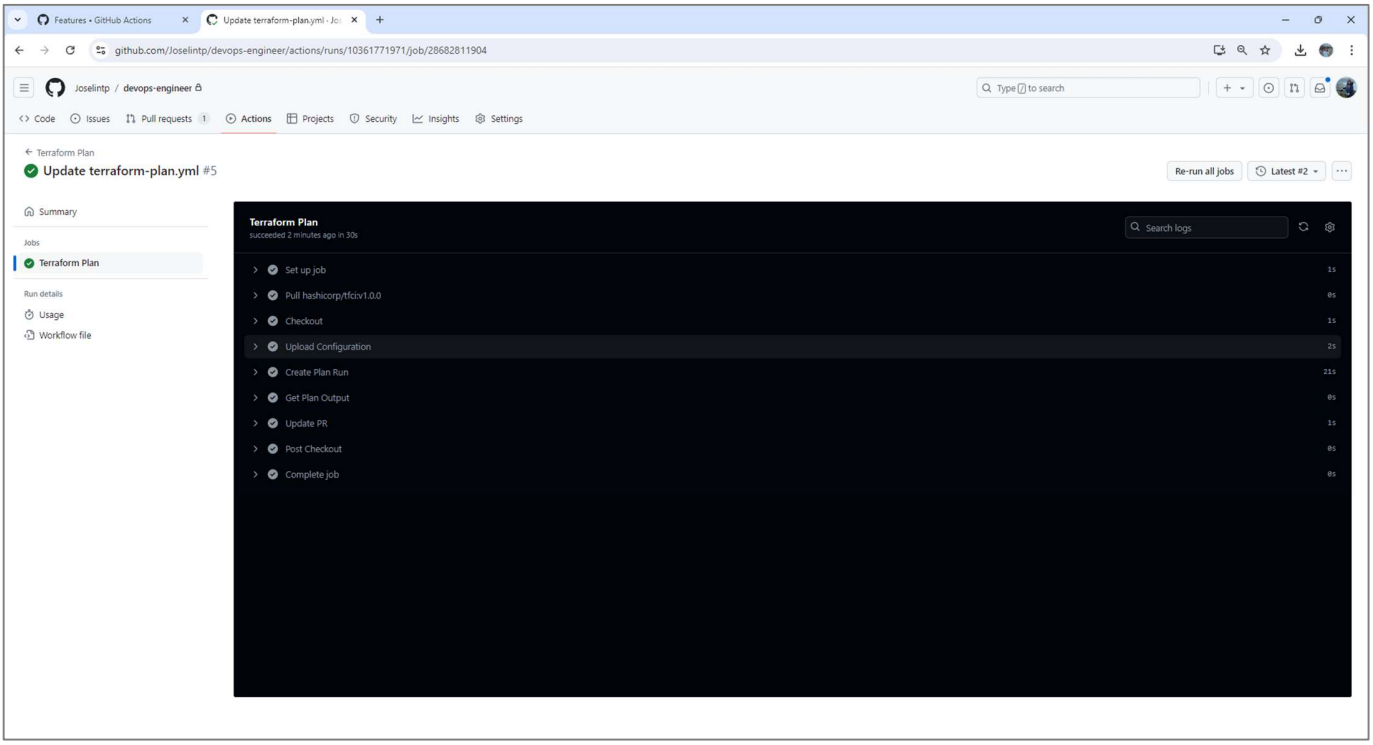
Summary
Jobs
Terraform Plan
Run details
Usage
Workflow file
Terraform Plan
succeeded 2 minutes ago in 30s
Search logs
Set up job 1s
1 Current runner version: '2.319.0'
2 ▶ Operating System
6 ▶ Runner Image
11 ▶ Runner Image Provisioner
13 ▶ GITHUB_TOKEN Permissions
17 Secret source: Actions
18 Prepare workflow directory
19 Prepare all required actions
20 Getting action download info
21 Download action repository 'actions/checkout@v3' (SHA:f43a0e5ff2bd294095638e18286ca9a3d1956744)
22 Download action repository 'hashicorp/tfc-workflows-github@v1.0.0' (SHA:4c569ffb1a0f1bf0da f00539abb505bcd246748a)
23 Download action repository 'actions/github-script@v6' (SHA:d7906e4ad0b1822421a7e6a35d5ca353c962f410)
24 Complete job name: Terraform Plan
Pull hashicorp/tfciv1.0.0 0s
Checkout 1s
Upload Configuration 2s
Create Plan Run 21s
Get Plan Output 0s
Update PR 1s
Post Checkout 0s
Complete job 0s


Features • GitHub Actions
Update terraform-plan.yml · Jo
github.com/Joselintp/devops-engineer/actions/runs/10361771971/job/28682811904
Summary
Jobs
Terraform Plan
Run details
Usage
Workflow file
Terraform Plan
succeeded 3 minutes ago in 30s
Search logs
Set up job 1s
Pull hashicorp/tfci:v1.0.0 0s
1 ▶ Pull down action image 'hashicorp/tfci:v1.0.0'
Checkout 1s
1 ▶ Run actions/checkout@v3
19 Syncing repository: Joselintp/devops-engineer
20 ▶ Getting Git version info
24 Temporarily overriding HOME='/home/runner/work/_temp/9d3d6084-515d-4f7f-9e6c-fe978a6b917c' before making global git config changes
25 Adding repository directory to the temporary git global config as a safe directory
26 /usr/bin/git config --global --add safe.directory /home/runner/work/devops-engineer/devops-engineer
27 Deleting the contents of '/home/runner/work/devops-engineer/devops-engineer'
28 ▶ Initializing the repository
42 ▶ Disabling automatic garbage collection
44 ▶ Setting up auth
50 ▶ Fetching the repository
163 ▶ Determining the checkout info
164 ▶ Checking out the ref
184 /usr/bin/git log -1 --format='%H'
185 '7caf141948acfac626ca28c2193b989fe139a10'
Upload Configuration 2s
1 ▶ Run hashicorp/tfc-workflows-github/actions/upload-configuration@v1.0.0
11 /usr/bin/docker run --name hashicorptfciv100_5b6eb0 --label f6d8cb --workdir /github/workspace --rm -e "TF_CLOUD_ORGANIZATION" -e "TF_API_TOKEN" -e "TF_WORKSPACE" -e "CONFIG_DIRECTORY" -e "INPUT_WORKSPACE" -e "INPUT_DIRECTORY" -e "INPUT_SPECULATIVE" -e "INPUT_HOSTNAME" -e "INPUT_TOKEN" -e "INPUT_ORGANIZATION" -e "HOME" -e "GITHUB_JOB" -e "GITHUB_REF" -e "GITHUB_SHA" -e "GITHUB_REPOSITORY" -e "GITHUB_REPOSITORY_OWNER" -e "GITHUB_REPOSITORY_OWNER_ID" -e "GITHUB_RUN_ID" -e "GITHUB_RUN_NUMBER" -e "GITHUB_RETENTION_DAYS" -e "GITHUB_RUN_ATTEMPT" -e "GITHUB_REPOSITORY_ID" -e "GITHUB_ACTOR_ID" -e "GITHUB_ACTOR" -e "GITHUB_TRIGGERING_ACTOR" -e "GITHUB_WORKFLOW" -e "GITHUB_HEAD_REF" -e "GITHUB_BASE_REF" -e "GITHUB_EVENT_NAME" -e "GITHUB_SERVER_URL" -e "GITHUB_API_URL" -e "GITHUB_GRAPHQL_URL" -e "GITHUB_REF_NAME" -e "GITHUB_REF_PROTECTED" -e "GITHUB_REF_TYPE" -e "GITHUB_WORKFLOW_REF" -e "GITHUB_WORKFLOW_SHA" -e "GITHUB_WORKSPACE" -e "GITHUB_ACTION" -e "GITHUB_EVENT_PATH" -e "GITHUB_ACTION_REPOSITORY" -e "GITHUB_ACTION_REF" -e "GITHUB_PATH" -e "GITHUB_ENV" -e "GITHUB_STEP_SUMMARY" -e "GITHUB_STATE" -e "GITHUB_OUTPUT" -e "RUNNER_OS" -e "RUNNER_ARCH" -e "RUNNER_NAME" -e "RUNNER_ENVIRONMENT" -e "RUNNER_TOOL_CACHE" -e "RUNNER_TEMP" -e "RUNNER_WORKSPACE" -e "ACTIONS_RUNTIME_URL" -e "ACTIONS_RUNTIME_TOKEN" -e "ACTIONS_CACHE_URL" -e "ACTIONS_RESULTS_URL" -e GITHUB_ACTIONS=true -e CI=true -v "/var/run/docker.sock":"/var/run/docker.sock" -v "/home/runner/work/_temp/_github_home":"/github/home" -v "/home/runner/work/_temp/_github_workflow":"/github/workflow" -v "/home/runner/work/_temp/_runner_file_commands":"/github/file_commands" -v "/home/runner/work/devops-engineer/devops-engineer":"/github/workspace" hashicorp/tfci:v1.0.0 "tfci" "-hostname=" "-token=" "-organization=" "upload" "-workspace=terraform-github-actions" "-directory=0esafi08/Terraform" "-speculative=true"
12 Configuration Version has been created: cv-916V3YBsp97emZnm
13 Uploading configuration...
14 Upload Status: 'pending'
15 Upload Status: 'uploaded'
16 {
17 "configuration_version_id": "cv-916V3YBsp97emZnm",
18 "configuration_version_status": "uploaded",
19 "status": "Success"
20 }
Create Plan Run 21s


Features • GitHub Actions
Update terraform-plan.yml · Jo
github.com/Joselintp/devops-engineer/actions/runs/10361771971/job/28682811904
Summary
Jobs
Terraform Plan
Run details
Usage
Workflow file
Terraform Plan
succeeded 4 minutes ago in 30s
Search logs
Checkout 1s
Upload Configuration 2s
Create Plan Run 21s
1 ▶ Run hashicorp/tfc-workflows-github/actions/create-run@v1.0.0
11 /usr/bin/docker run --name hashicorptfciv100_62f1id --label f6d8cb --workdir /github/workspace --rm -e "TF_CLOUD_ORGANIZATION" -e "TF_API_TOKEN" -e "TF_WORKSPACE" -e "CONFIG_DIRECTORY" -e "INPUT_WORKSPACE" -e "INPUT_CONFIGURATION_VERSION" -e "INPUT_PLAN_ONLY" -e "INPUT_HOSTNAME" -e "INPUT_TOKEN" -e "INPUT_ORGANIZATION" -e "INPUT_MESSAGE" -e "HOME" -e "GITHUB_JOB" -e "GITHUB_REF" -e "GITHUB_SHA" -e "GITHUB_REPOSITORY" -e "GITHUB_REPOSITORY_OWNER" -e "GITHUB_REPOSITORY_OWNER_ID" -e "GITHUB_RUN_ID" -e "GITHUB_RUN_NUMBER" -e "GITHUB_RETENTION_DAYS" -e "GITHUB_RUN_ATTEMPT" -e "GITHUB_REPOSITORY_ID" -e "GITHUB_ACTOR_ID" -e "GITHUB_ACTOR" -e "GITHUB_TRIGGERING_ACTOR" -e "GITHUB_WORKFLOW" -e "GITHUB_HEAD_REF" -e "GITHUB_BASE_REF" -e "GITHUB_EVENT_NAME" -e "GITHUB_SERVER_URL" -e "GITHUB_API_URL" -e "GITHUB_GRAPHQL_URL" -e "GITHUB_REF_NAME" -e "GITHUB_REF_PROTECTED" -e "GITHUB_REF_TYPE" -e "GITHUB_WORKFLOW_REF" -e "GITHUB_WORKFLOW_SHA" -e "GITHUB_WORKSPACE" -e "GITHUB_ACTION" -e "GITHUB_EVENT_PATH" -e "GITHUB_ACTION_REPOSITORY" -e "GITHUB_ACTION_REF" -e "GITHUB_PATH" -e "GITHUB_ENV" -e "GITHUB_STEP_SUMMARY" -e "GITHUB_STATE" -e "GITHUB_OUTPUT" -e "RUNNER_OS" -e "RUNNER_ARCH" -e "RUNNER_NAME" -e "RUNNER_ENVIRONMENT" -e "RUNNER_TOOL_CACHE" -e "RUNNER_TEMP" -e "RUNNER_WORKSPACE" -e "ACTIONS_RUNTIME_URL" -e "ACTIONS_RUNTIME_TOKEN" -e "ACTIONS_CACHE_URL" -e "ACTIONS_RESULTS_URL" -e GITHUB_ACTIONS=true -e CI=true -v "/var/run/docker.sock":"/var/run/docker.sock" -v "/home/runner/work/_temp/_github_home":"/github/home" -v "/home/runner/work/_temp/_github_workflow":"/github/workflow" -v "/home/runner/work/_temp/_runner_file_commands":"/github/file_commands" -v "/home/runner/work/devops-engineer/devops-engineer":"/github/workspace" hashicorp/tfci:v1.0.0 "tfci" "-hostname=" "-token=" "-organization=" "run" "create" "-workspace=terraform-github-actions" "-configuration_version=cv-916V3YBsp97emZnm" "-message=" "-plan-only=true"
12 Created Run ID: run-SqSNPsd2isjVmKyQ
13 Run Status: 'pending'
14 Run Status: 'plan_queued'
15 Run Status: 'planning'
16 Run Status: 'planning'
17 Run Status: 'planned_and_finished'
19 ---------- Plan Log ----------
20 Terraform v1.9.4
21 on linux_amd64
22 Initializing plugins and modules...
23 {"@level":"info","@message":"Terraform 1.9.4","@module":"terraform.ui","@timestamp":"2024-08-13T01:03:57.4080052","terraform":"1.9.4","type":"version","ui":"1.2"}
24 {"@level":"info","@message":"data.aws_ami.ubuntu: Refreshing...","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.0034092","hook":{"resource":{"addr":"data.aws_ami.ubuntu","module":"","resource":"data.aws_ami.ubuntu","implied_provider":"aws","resource_type":"aws_ami","resource_name":"ubuntu","resource_key":null},"action":"read"},"type":"apply_start"}
25 {"@level":"info","@message":"data.aws_ami.ubuntu: Refresh complete after 0s [id=ami-03b425a3efaaad179]","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2552202Z","hook":{"resource":{"addr":"data.aws_ami.ubuntu","module":"","resource":"data.aws_ami.ubuntu","implied_provider":"aws","resource_type":"aws_ami","resource_name":"ubuntu","resource_key":null},"action":"read","id_key":"id","id_value":"ami-03b425a3efaaad179","elapsed_seconds":0},"type":"apply_complete"}
26 {"@level":"info","@message":"random_pet.sg: Plan to create","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2767132Z","change":{"resource":{"addr":"random_pet.sg","module":"","resource":"random_pet.sg","implied_provider":"random","resource_type":"random_pet","resource_name":"sg","resource_key":null},"action":"create"},"type":"planned_change"}
27 {"@level":"info","@message":"aws_security_group.web-sg: Plan to create","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2767942Z","change":{"resource":{"addr":"aws_security_group.web-sg","module":"","resource":"aws_security_group.web-sg","implied_provider":"aws","resource_type":"aws_security_group","resource_name":"web-sg","resource_key":null},"action":"create"},"type":"planned_change"}
28 {"@level":"info","@message":"aws_instance.web: Plan to create","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2768362Z","change":{"resource":{"addr":"aws_instance.web","module":"","resource":"aws_instance.web","implied_provider":"aws","resource_type":"aws_instance","resource_name":"web","resource_key":null},"action":"create"},"type":"planned_change"}
29 {"@level":"info","@message":"Plan: 3 to add, 0 to change, 0 to destroy.","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2768722Z","changes":{"add":3,"change":0,"import":0,"remove":0,"operation":"plan"},"type":"change_summary"}
30 {"@level":"info","@message":"Outputs: 1","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2769262Z","outputs":{"web-address":{"sensitive":false,"action":"create"}},"type":"outputs"}
32 View Run in Terraform Cloud: https://app.terraform.io/app/JoselinTP/workspaces/terraform-github-actions/runs/run-SqSNPsd2isjVmKyQ
33 {
34 "configuration_version_id": "cv-916V3YBsp97emZnm",
35 "plan_id": "plan-8KFqxmWtCCxoCqr3",
36 "plan_status": "finished",
37 "run_id": "run-SqSNPsd2isjVmKyQ",


Features • GitHub Actions
Update terraform-plan.yml
github.com/Joselintp/devops-engineer/actions/runs/10361771971/job/28682811904
Summary
Jobs
Terraform Plan
Run details
Usage
Workflow file
Terraform Plan
succeeded 5 minutes ago in 30s
Search logs
Create Plan Run 21s
Get Plan Output 0s
▶ Run hashicorp/tfc-workflows-github/actions/plan-output@v1.0.0
/usr/bin/docker run --name hashicorptfciv100_772461 --label f6d8cb --workdir /github/workspace --rm -e "TF_CLOUD_ORGANIZATION" -e "TF_API_TOKEN" -e "TF_WORKSPACE" -e "CONFIG_DIRECTORY" -e "INPUT_PLAN" -e "INPUT_HOSTNAME" -e "INPUT_TOKEN" -e "INPUT_ORGANIZATION" -e "HOME" -e "GITHUB_JOB" -e "GITHUB_REF" -e "GITHUB_SHA" -e "GITHUB_REPOSITORY" -e "GITHUB_REPOSITORY_OWNER" -e "GITHUB_REPOSITORY_OWNER_ID" -e "GITHUB_RUN_ID" -e "GITHUB_RUN_NUMBER" -e "GITHUB_RETENTION_DAYS" -e "GITHUB_RUN_ATTEMPT" -e "GITHUB_REPOSITORY_ID" -e "GITHUB_ACTOR_ID" -e "GITHUB_ACTOR" -e "GITHUB_TRIGGERING_ACTOR" -e "GITHUB_WORKFLOW" -e "GITHUB_HEAD_REF" -e "GITHUB_BASE_REF" -e "GITHUB_EVENT_NAME" -e "GITHUB_SERVER_URL" -e "GITHUB_API_URL" -e "GITHUB_GRAPHQL_URL" -e "GITHUB_REF_NAME" -e "GITHUB_REF_PROTECTED" -e "GITHUB_REF_TYPE" -e "GITHUB_WORKFLOW_REF" -e "GITHUB_WORKFLOW_SHA" -e "GITHUB_WORKSPACE" -e "GITHUB_ACTION" -e "GITHUB_EVENT_PATH" -e "GITHUB_ACTION_REPOSITORY" -e "GITHUB_ACTION_REF" -e "GITHUB_PATH" -e "GITHUB_ENV" -e "GITHUB_STEP_SUMMARY" -e "GITHUB_STATE" -e "GITHUB_OUTPUT" -e "RUNNER_OS" -e "RUNNER_ARCH" -e "RUNNER_NAME" -e "RUNNER_ENVIRONMENT" -e "RUNNER_TOOL_CACHE" -e "RUNNER_TEMP" -e "RUNNER_WORKSPACE" -e "ACTIONS_RUNTIME_URL" -e "ACTIONS_RUNTIME_TOKEN" -e "ACTIONS_CACHE_URL" -e "ACTIONS_RESULTS_URL" -e GITHUB_ACTIONS=true -e CI=true -v "/var/run/docker.sock":"/var/run/docker.sock" -v "/home/runner/work/_temp/_github_home":"/github/home" -v "/home/runner/work/_temp/_github_workflow":"/github/workflow" -v "/home/runner/work/_temp/_runner_file_commands":"/github/file_commands" -v "/home/runner/work/devops-engineer/devops-engineer":"/github/workspace" hashicorp/tfci:v1.0.0 "tfci" "-hostname=" "-token=" "-organization=" "plan" "output" "-plan=plan-8XFqxmWtCCxoCqr3"
{
"add": "3",
"change": "0",
"destroy": "0",
"plan_id": "plan-8XFqxmWtCCxoCqr3",
"plan_status": "finished",
"status": "Success"
}
Update PR 1s
▶ Run actions/github-script@v6
Post Checkout 0s
Post job cleanup.
/usr/bin/git version
git version 2.46.0
Temporarily overriding HOME='/home/runner/work/_temp/632a6b27-ca04-40a8-b1d3-2d70a562a880' before making global git config changes
Adding repository directory to the temporary git global config as a safe directory
/usr/bin/git config --global --add safe.directory /home/runner/work/devops-engineer/devops-engineer
/usr/bin/git config --local --name-only --get-regexp core\.sshCommand
/usr/bin/git submodule foreach --recursive sh -c "git config --local --name-only --get-regexp 'core\.sshCommand' && git config --local --unset-all 'core.sshCommand' || :"
/usr/bin/git config --local --name-only --get-regexp http\.https\:\/\/github\.com\/\.extraheader
http.https://github.com/.extraheader
/usr/bin/git config --local --unset-all http.https://github.com/.extraheader
/usr/bin/git submodule foreach --recursive sh -c "git config --local --name-only --get-regexp 'http\.https\:\/\/github\.com\/\.extraheader' && git config --local --unset-all 'http.https://github.com/.extraheader' || :"
Complete job 0s
Cleaning up orphan processes


Features • GitHub Actions
Update terraform-plan.yml
github.com/Joselintp/devops-engineer/actions/runs/10361771971/job/28682811904
Joselintp / devops-engineer
Type / to search
Code
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Pull requests 1
Actions
Projects
Security
Insights
Settings
Terraform Plan
Update terraform-plan.yml #5
Re-run all jobs
Latest #2
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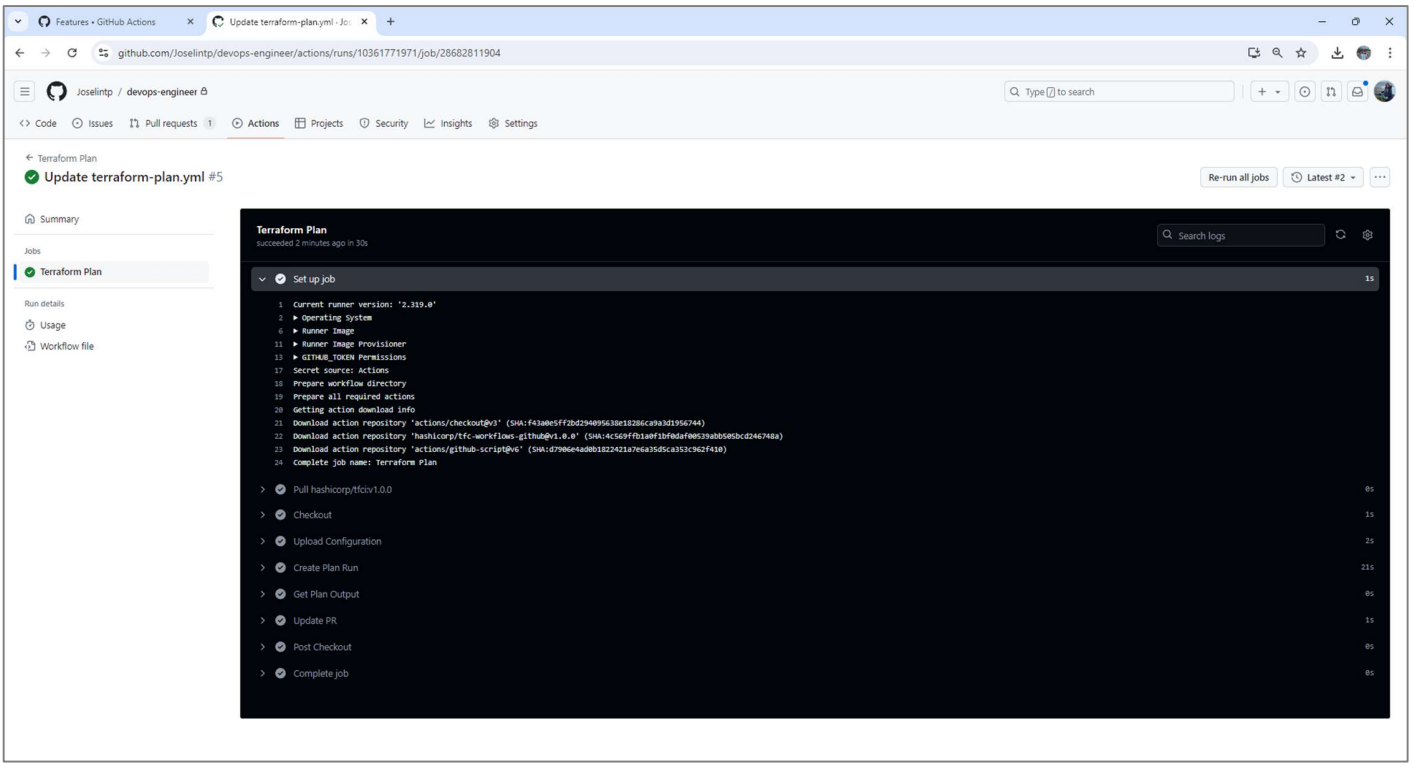
Workflow file
Terraform Plan
succeeded 2 minutes ago in 30s
Search logs
Set up job 1s
Pull hashicorp/tfci:v1.0.0 0s
Checkout 1s
Upload Configuration 2s
Create Plan Run 21s
Get Plan Output 0s
Update PR 1s
Post Checkout 0s
Complete job 0s


Features • GitHub Actions
Update terraform-plan.yml · Jo
github.com/Joselintp/devops-engineer/actions/runs/10361771971/job/28682811904
Joselintp / devops-engineer
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Code
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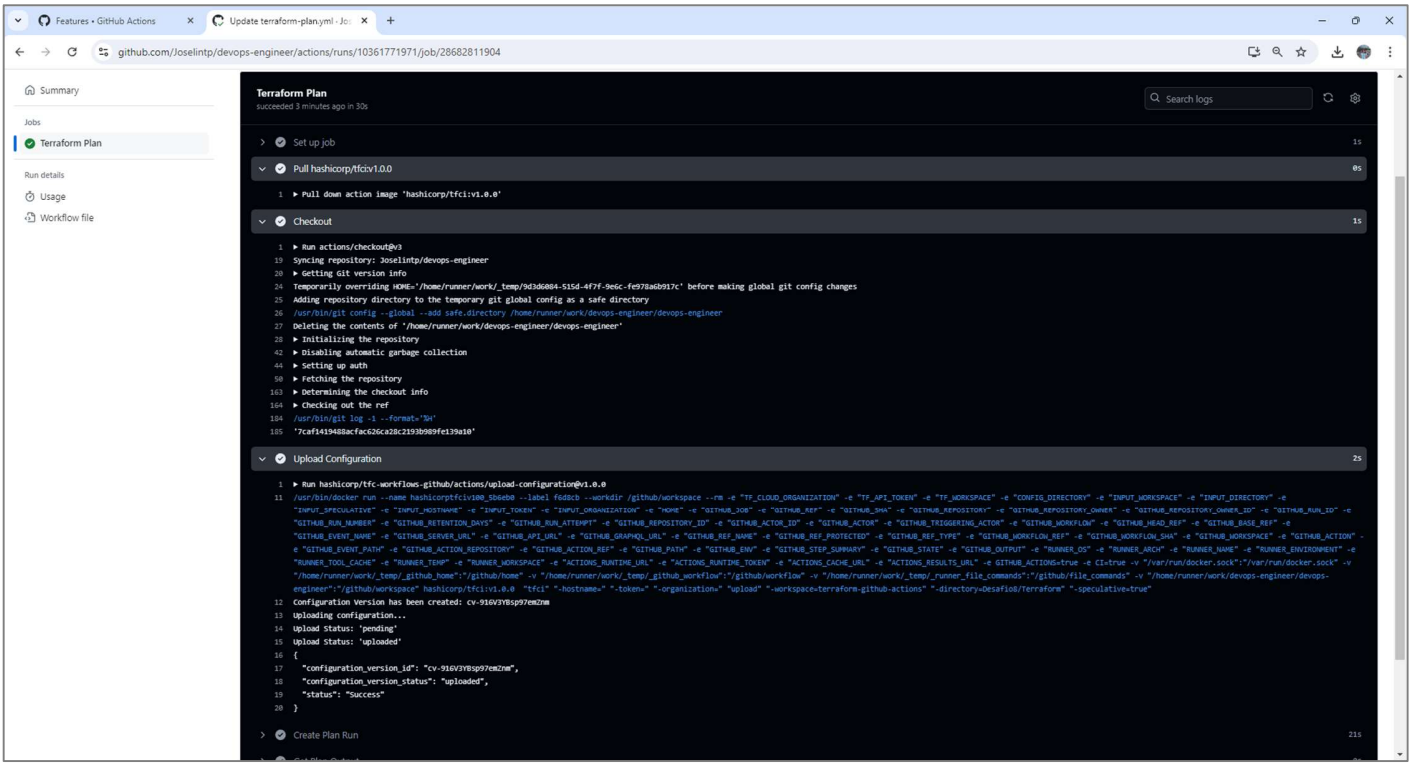
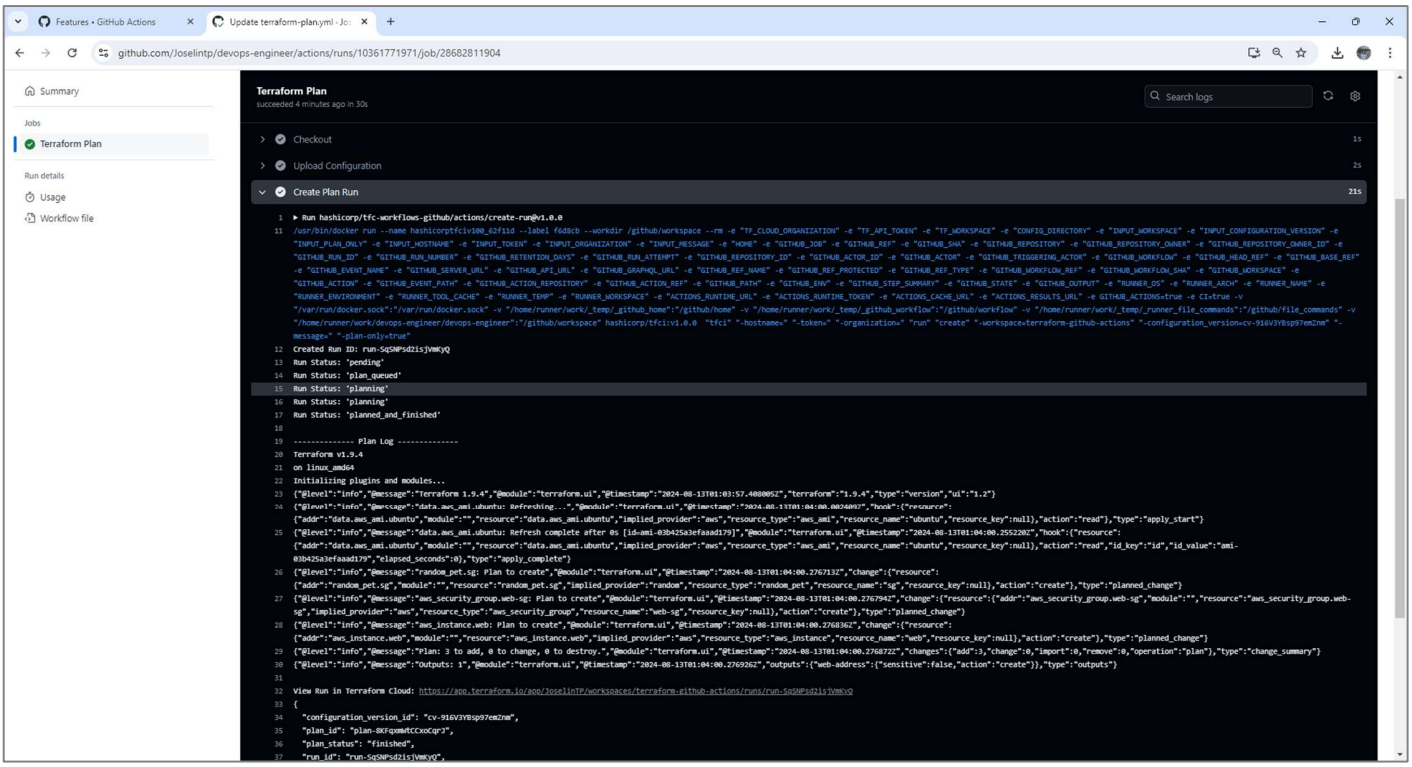
Terraform Plan
Update terraform-plan.yml #5
Re-run all jobs
Latest #2
Summary
Jobs
Terraform Plan
Run details
Usage
Workflow file
Terraform Plan
succeeded 2 minutes ago in 30s
Search logs
Set up job 1s
Current runner version: '2.319.0'
Operating System
Runner Image
Runner Image Provisioner
GITHUB_TOKEN Permissions
Secret source: Actions
Prepare workflow directory
Prepare all required actions
Getting action download info
Download action repository 'actions/checkout@v3' (SHA:f43a0e5ff2bd294095638e18286ca9a3d1956744)
Download action repository 'hashicorp/tfc-workflows-github@v1.0.0' (SHA:4c569ffb1a0f1bf0daf00539abb505bcd246748a)
Download action repository 'actions/github-script@v6' (SHA:d7906e4ad0b1822421a7e6a35d5ca353c962f410)
Complete job name: Terraform Plan
Pull hashicorp/tfciv1.0.0 0s
Checkout 1s
Upload Configuration 2s
Create Plan Run 21s
Get Plan Output 0s
Update PR 1s
Post Checkout 0s
Complete job 0s


Features • GitHub Actions
Update terraform-plan.yml · Jo
github.com/Joselintp/devops-engineer/actions/runs/10361771971/job/28682811904
Summary
Jobs
Terraform Plan
Run details
Usage
Workflow file
Terraform Plan
succeeded 3 minutes ago in 30s
Search logs
Set up job 1s
Pull hashicorp/tfciv1.0.0 0s
Pull down action image 'hashicorp/tfci:v1.0.0'
Checkout 1s
Run actions/checkout@v3
Syncing repository: Joselintp/devops-engineer
Getting Git version info
Temporarily overriding HOME='/home/runner/work/_temp/9d3d6084-515d-4f7f-9e6c-fe978a6b917c' before making global git config changes
Adding repository directory to the temporary git global config as a safe directory
/usr/bin/git config --global --add safe.directory /home/runner/work/devops-engineer/devops-engineer
Deleting the contents of '/home/runner/work/devops-engineer/devops-engineer'
Initializing the repository
Disabling automatic garbage collection
Setting up auth
Fetching the repository
Determining the checkout info
Checking out the ref
/usr/bin/git log -1 --format='%H'
'7caf1419488acfac626ca28c2193b989fe139a10'
Upload Configuration 2s
Run hashicorp/tfc-workflows-github/actions/upload-configuration@v1.0.0
Configuration Version has been created: cv-916V3Y8sp97emZnm
Uploading configuration...
Upload Status: 'pending'
Upload Status: 'uploaded'
{
"configuration_version_id": "cv-916V3Y8sp97emZnm",
"configuration_version_status": "uploaded",
"status": "Success"
}
Create Plan Run 21s


Features • GitHub Actions
Update terraform-plan.yml · Jo
github.com/Joselintp/devops-engineer/actions/runs/10361771971/job/28682811904
Summary
Jobs
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Run details
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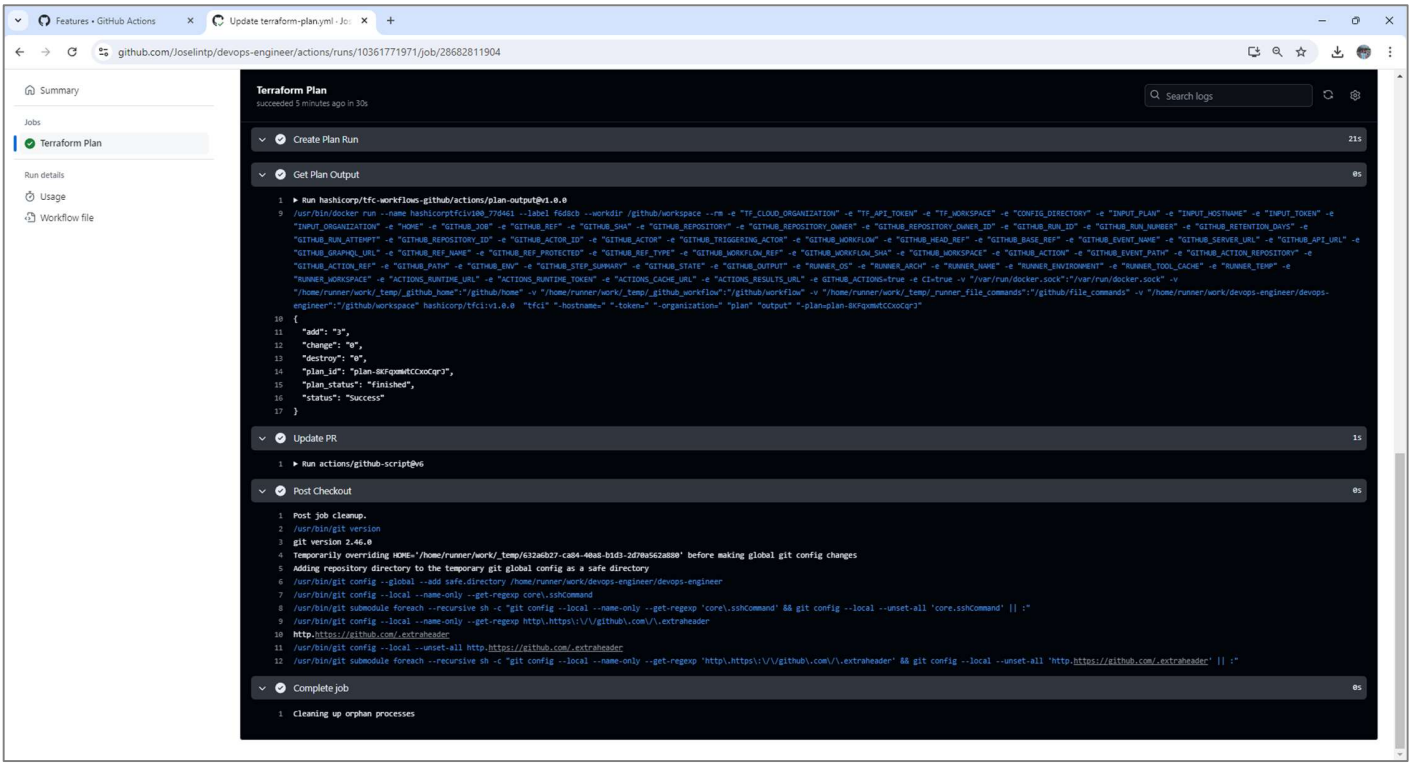
Terraform Plan
succeeded 4 minutes ago in 30s
Search logs
Checkout 1s
Upload Configuration 2s
Create Plan Run 21s
▶ Run hashicorp/tfc-workflows-github/actions/create-run@v1.0.0
/usr/bin/docker run --name hashicorptfciv100_62f11d --label f6d8cb --workdir /github/workspace --rm -e "TF_CLOUD_ORGANIZATION" -e "TF_API_TOKEN" -e "TF_WORKSPACE" -e "CONFIG_DIRECTORY" -e "INPUT_WORKSPACE" -e "INPUT_CONFIGURATION_VERSION" -e "INPUT_PLAN_ONLY" -e "INPUT_HOSTNAME" -e "INPUT_TOKEN" -e "INPUT_ORGANIZATION" -e "INPUT_MESSAGE" -e "HOME" -e "GITHUB_JOB" -e "GITHUB_REF" -e "GITHUB_SHA" -e "GITHUB_REPOSITORY" -e "GITHUB_REPOSITORY_OWNER" -e "GITHUB_REPOSITORY_OWNER_ID" -e "GITHUB_RUN_ID" -e "GITHUB_RUN_NUMBER" -e "GITHUB_RETENTION_DAYS" -e "GITHUB_RUN_ATTEMPT" -e "GITHUB_REPOSITORY_ID" -e "GITHUB_ACTOR_ID" -e "GITHUB_ACTOR" -e "GITHUB_TRIGGERING_ACTOR" -e "GITHUB_WORKFLOW" -e "GITHUB_HEAD_REF" -e "GITHUB_BASE_REF" -e "GITHUB_EVENT_NAME" -e "GITHUB_SERVER_URL" -e "GITHUB_API_URL" -e "GITHUB_GRAPHQL_URL" -e "GITHUB_REF_NAME" -e "GITHUB_REF_PROTECTED" -e "GITHUB_REF_TYPE" -e "GITHUB_WORKFLOW_REF" -e "GITHUB_WORKFLOW_SHA" -e "GITHUB_WORKSPACE" -e "GITHUB_ACTION" -e "GITHUB_EVENT_PATH" -e "GITHUB_ACTION_REPOSITORY" -e "GITHUB_ACTION_REF" -e "GITHUB_PATH" -e "GITHUB_ENV" -e "GITHUB_STEP_SUMMARY" -e "GITHUB_STATE" -e "GITHUB_OUTPUT" -e "RUNNER_OS" -e "RUNNER_ARCH" -e "RUNNER_NAME" -e "RUNNER_ENVIRONMENT" -e "RUNNER_TOOL_CACHE" -e "RUNNER_TEMP" -e "RUNNER_WORKSPACE" -e "ACTIONS_RUNTIME_URL" -e "ACTIONS_RUNTIME_TOKEN" -e "ACTIONS_CACHE_URL" -e "ACTIONS_RESULTS_URL" -e GITHUB_ACTIONS=true -e CI=true -v "/var/run/docker.sock":"/var/run/docker.sock" -v "/home/runner/work/_temp/_github_home":"/github/home" -v "/home/runner/work/_temp/_github_workflow":"/github/workflow" -v "/home/runner/work/_temp/_runner_file_commands":"/github/file_commands" -v "/home/runner/work/devops-engineer/devops-engineer":"/github/workspace" hashicorp/tfci:v1.0.0 "tfci" "-hostname=" "-token=" "-organization=" "run" "create" "-workspace=terraform-github-actions" "-configuration_version=cv-916V3YBsp97emZnm" "-message=" "-plan-only=true"
Created Run ID: run-SqSNPsd2isjVmKyQ
Run Status: 'pending'
Run Status: 'plan_queued'
Run Status: 'planning'
Run Status: 'planning'
Run Status: 'planned_and_finished'
------------- Plan Log -------------
Terraform v1.9.4
on linux_amd64
Initializing plugins and modules...
{"@level":"info","@message":"Terraform 1.9.4","@module":"terraform.ui","@timestamp":"2024-08-13T01:03:57.408005Z","terraform":"1.9.4","type":"version","ui":"1.2"}
{"@level":"info","@message":"data.aws_ami.ubuntu: Refreshing...","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.0024092","hook":{"resource":{"addr":"data.aws_ami.ubuntu","module":"","resource":"data.aws_ami.ubuntu","implied_provider":"aws","resource_type":"aws_ami","resource_name":"ubuntu","resource_key":null},"action":"read"},"type":"apply_start"}
{"@level":"info","@message":"data.aws_ami.ubuntu: Refresh complete after 0s [id=ami-03b425a3efaaad179]","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2552202Z","hook":{"resource":{"addr":"data.aws_ami.ubuntu","module":"","resource":"data.aws_ami.ubuntu","implied_provider":"aws","resource_type":"aws_ami","resource_name":"ubuntu","resource_key":null},"action":"read","id_key":"id","id_value":"ami-03b425a3efaaad179","elapsed_seconds":0},"type":"apply_complete"}
{"@level":"info","@message":"random_pet.sg: Plan to create","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2767132Z","change":{"resource":{"addr":"random_pet.sg","module":"","resource":"random_pet.sg","implied_provider":"random","resource_type":"random_pet","resource_name":"sg","resource_key":null},"action":"create"},"type":"planned_change"}
{"@level":"info","@message":"aws_security_group.web-sg: Plan to create","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2767942Z","change":{"resource":{"addr":"aws_security_group.web-sg","module":"","resource":"aws_security_group.web-sg","implied_provider":"aws","resource_type":"aws_security_group","resource_name":"web-sg","resource_key":null},"action":"create"},"type":"planned_change"}
{"@level":"info","@message":"aws_instance.web: Plan to create","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2768362Z","change":{"resource":{"addr":"aws_instance.web","module":"","resource":"aws_instance.web","implied_provider":"aws","resource_type":"aws_instance","resource_name":"web","resource_key":null},"action":"create"},"type":"planned_change"}
{"@level":"info","@message":"Plan: 3 to add, 0 to change, 0 to destroy.","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2768722Z","changes":{"add":3,"change":0,"import":0,"remove":0,"operation":"plan"},"type":"change_summary"}
{"@level":"info","@message":"Outputs: 1","@module":"terraform.ui","@timestamp":"2024-08-13T01:04:00.2769262Z","outputs":{"web-address":{"sensitive":false,"action":"create"}},"type":"outputs"}
View Run in Terraform Cloud: https://app.terraform.io/app/JoselinTP/workspaces/terraform-github-actions/runs/run-SqSNPsd2isjVmKyQ
{
"configuration_version_id": "cv-916V3YBsp97emZnm",
"plan_id": "plan-8KFqxmWtCCxoCqrJ",
"plan_status": "finished",
"run_id": "run-SqSNPsd2isjVmKyQ",


Features • GitHub Actions
Update terraform-plan.yml · Jo
github.com/Joselintp/devops-engineer/actions/runs/10361771971/job/28682811904
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succeeded 5 minutes ago in 30s
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Create Plan Run 21s
Get Plan Output 0s
▶ Run hashicorp/tfc-workflows-github/actions/plan-output@v1.0.0
/usr/bin/docker run --name hashicorptfciv100_770461 --label f6d8cb --workdir /github/workspace --rm -e "TF_CLOUD_ORGANIZATION" -e "TF_API_TOKEN" -e "TF_WORKSPACE" -e "CONFIG_DIRECTORY" -e "INPUT_PLAN" -e "INPUT_HOSTNAME" -e "INPUT_TOKEN" -e "INPUT_ORGANIZATION" -e "HOME" -e "GITHUB_JOB" -e "GITHUB_REF" -e "GITHUB_SHA" -e "GITHUB_REPOSITORY" -e "GITHUB_REPOSITORY_OWNER" -e "GITHUB_REPOSITORY_OWNER_ID" -e "GITHUB_RUN_ID" -e "GITHUB_RUN_NUMBER" -e "GITHUB_RETENTION_DAYS" -e "GITHUB_RUN_ATTEMPT" -e "GITHUB_REPOSITORY_ID" -e "GITHUB_ACTOR_ID" -e "GITHUB_ACTOR" -e "GITHUB_TRIGGERING_ACTOR" -e "GITHUB_WORKFLOW" -e "GITHUB_HEAD_REF" -e "GITHUB_BASE_REF" -e "GITHUB_EVENT_NAME" -e "GITHUB_SERVER_URL" -e "GITHUB_API_URL" -e "GITHUB_GRAPHQL_URL" -e "GITHUB_REF_NAME" -e "GITHUB_REF_PROTECTED" -e "GITHUB_REF_TYPE" -e "GITHUB_WORKFLOW_REF" -e "GITHUB_WORKFLOW_SHA" -e "GITHUB_WORKSPACE" -e "GITHUB_ACTION" -e "GITHUB_EVENT_PATH" -e "GITHUB_ACTION_REPOSITORY" -e "GITHUB_ACTION_REF" -e "GITHUB_PATH" -e "GITHUB_ENV" -e "GITHUB_STEP_SUMMARY" -e "GITHUB_STATE" -e "GITHUB_OUTPUT" -e "RUNNER_OS" -e "RUNNER_ARCH" -e "RUNNER_NAME" -e "RUNNER_ENVIRONMENT" -e "RUNNER_TOOL_CACHE" -e "RUNNER_TEMP" -e "RUNNER_WORKSPACE" -e "ACTIONS_RUNTIME_URL" -e "ACTIONS_RUNTIME_TOKEN" -e "ACTIONS_CACHE_URL" -e "ACTIONS_RESULTS_URL" -e GITHUB_ACTIONS=true -e CI=true -v "/var/run/docker.sock":"/var/run/docker.sock" -v "/home/runner/work/_temp/_github_home":"/github/home" -v "/home/runner/work/_temp/_github_workflow":"/github/workflow" -v "/home/runner/work/_temp/_runner_file_commands":"/github/file_commands" -v "/home/runner/work/devops-engineer/devops-engineer":"/github/workspace" hashicorp/tfci:v1.0.0 "tfci" "-hostname=" "-token=" "-organization=" "plan" "output" "-plan=plan-8KFqxmWtCCxoCqrJ"
{
"add": "3",
"change": "0",
"destroy": "0",
"plan_id": "plan-8KFqxmWtCCxoCqrJ",
"plan_status": "finished",
"status": "Success"
}
Update PR 1s
▶ Run actions/github-script@v6
Post Checkout 0s
Post job cleanup.
/usr/bin/git version
git version 2.46.0
Temporarily overriding HOME='/home/runner/work/_temp/632a6b27-ca84-40a8-b1d3-2d70a562a880' before making global git config changes
Adding repository directory to the temporary git global config as a safe directory
/usr/bin/git config --global --add safe.directory /home/runner/work/devops-engineer/devops-engineer
/usr/bin/git config --local --name-only --get-regexp core\.sshCommand
/usr/bin/git submodule foreach --recursive sh -c "git config --local --name-only --get-regexp 'core\.sshCommand' && git config --local --unset-all 'core.sshCommand' || :"
/usr/bin/git config --local --name-only --get-regexp http\.https\:\/\/github\.com\/\.extraheader
http.https://github.com/.extraheader
/usr/bin/git config --local --unset-all http.https://github.com/.extraheader
/usr/bin/git submodule foreach --recursive sh -c "git config --local --name-only --get-regexp 'http\.https\:\/\/github\.com\/\.extraheader' && git config --local --unset-all 'http.https://github.com/.extraheader' || :"
Complete job 0s
Cleaning up orphan processes

Creación grupo de seguridad / instancia EC2 en AWS