Pulumi Infrastructure as code

CONCEPTS

Your program declares the desired resources in a real language. Pulumi diffs that against the stack's stored state and applies only the difference.

Program code per project
↓ preview
Engine diff vs state
↓ up
Stack one environment
↓ provider API
Cloud resources real infrastructure

A project is the code (Pulumi.yaml); a stack is one deployed instance of it (dev, prod) with its own config and state (Pulumi.<stack>.yaml).

Preview before up on shared stacks, and use pulumi refresh if someone changed resources by hand.

PROJECTS & DEPLOYS

pulumi new *<template>*
Create a project from a template

pulumi new *<template>* **--yes**
Accept all defaults

pulumi preview
Show what up would change

pulumi preview --diff
Preview as a rich diff

pulumi up
Preview, confirm, then deploy

pulumi up --yes
Deploy without the prompt

pulumi up --skip-preview
Deploy without previewing first

pulumi up --refresh
Refresh state before deploying

pulumi up --diff
Show changes as a rich diff

pulumi destroy
Delete all resources in the stack

pulumi destroy --remove
Also remove the empty stack

pulumi destroy --preview-only
Show what would be deleted

PROJECTS & DEPLOYS (cont.)

pulumi refresh
Update state from the real cloud

pulumi refresh --yes
Refresh without the prompt

TARGETING

pulumi up --target *<urn>*
Update only these resources

pulumi up --replace *<urn>*
Force recreating a resource

pulumi stack --show-urns
List resources with their URNs

STACKS

pulumi stack init *<name>*
Create a stack

pulumi stack ls
List stacks

pulumi stack select *<name>*
Switch the current stack

pulumi stack
Show current stack and resources

pulumi stack output
Show all outputs

pulumi stack output *<name>*
Print one output value

pulumi stack output --json
Outputs as JSON

pulumi stack output --show-secrets
Reveal secret outputs

pulumi stack rm *<name>*
Delete an empty stack

pulumi stack history
Show past updates

pulumi up --stack *<name>*
Act on a stack without selecting it

CONFIG & SECRETS

pulumi config
List config values

pulumi config set *<key>* *<value>*
Set a config value

pulumi config set --secret *<key>* *<value>*
Store a value encrypted

CONFIG & SECRETS (cont.)

pulumi config get *<key>*
Read one value

pulumi config rm *<key>*
Remove a value

pulumi config get *<key>* **--show-secrets**
Decrypt a secret

PULUMI_CONFIG_PASSPHRASE
Unlock a passphrase secrets provider

BACKENDS & STATE

pulumi login
Log in to Pulumi Cloud

pulumi login --local
Keep state on this machine

pulumi login file:// *<path>*
Use a local directory as backend

pulumi login s3:// *<bucket>*
Use an S3 bucket as backend

pulumi state delete *<urn>*
Drop a resource from state only

pulumi whoami
Show the logged-in user and backend

IMPORT & LOGS

pulumi import *<type>* *<name>* *<id>*
Adopt an existing resource

pulumi logs
Show recent resource logs

pulumi logs --follow
Stream logs live

GLOBAL FLAGS

--non-interactive
Never prompt

--json
Machine-readable output

RECIPES

First deployment

```
pulumi new aws-typescript
pulumi config set aws:region eu-central-1
pulumi preview
pulumi up
pulumi stack output
```