Pulumi Infrastructure as code

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

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.

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

PROJECTS & DEPLOYS (cont.)

`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 up --parallel <n>`
Limit concurrent operations

`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

`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 rm <name>`
Delete an empty stack

STACKS (cont.)

`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

`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

BACKENDS & STATE (cont.)

`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

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