Azure CLI

Microsoft cloud CLI

Login user, service principal, identity → `token cache` → **Subscription** billing and access scope → `--resource-group` → **Resource group** container for resources → `az <group> <cmd>` → **Resource** vm, aks, storage, ... → `--query, -o` → **Your terminal** json, table, tsv

CONCEPTS

Shape: az <group> [<subgroup>] <command> --options. Add -h at any level. Check az account show before changing anything.

Resource group, location and name are the three arguments most commands need. Set defaults with az config set defaults.group=<rg> defaults.location=<region>.

LOGIN AND ACCOUNTS

az login
Sign in through the browser

az login --use-device-code
Sign in on a headless machine

az account show
Show the active subscription

az account list -o table
List subscriptions you can use

az account set -s *<name-or-id>*
Switch subscription

RESOURCE GROUPS

az group list -o table
List resource groups

az group create -n *<rg>* **-l** *<region>*
Create a resource group

az group delete -n *<rg>* **--yes --no-wait**
Delete a group and all its contents

az resource list -g *<rg>* **-o table**
List everything in a group

VIRTUAL MACHINES

az vm list -g *<rg>* **-o table**
List VMs

az vm create -g *<rg>* **-n** *<name>* **--image Ubuntu2204 --generate-ssh-keys**
Create a Linux VM

az vm start -g *<rg>* **-n** *<name>*
Start a VM

az vm deallocate -g *<rg>* **-n** *<name>*
Stop and release compute billing

STORAGE

Storage commands default to account keys. Add --account-name <acct> --auth-mode login to use your Entra ID login instead.

az storage account list -o table
List storage accounts

az storage account create -n *<acct>* **-g** *<rg>* **-l** *<region>* **--sku Standard_LRS**
Create a storage account

az storage container create -n *<container>*
Create a blob container

az storage blob upload -f *<file>* **-c** *<container>* **-n** *<blob>*
Upload a blob

az storage blob list -c *<container>* **-o table**
List blobs

AKS AND CONTAINERS

az aks get-credentials -g *<rg>* **-n** *<name>*
Merge cluster access into kubeconfig

ROLES AND IDENTITY

az role assignment list --assignee *<user-or-id>* **--all -o table**
List a principal's roles

az role assignment create --assignee *<id>* **--role** *<role>* **--scope** *<scope>*
Grant a role

az role assignment delete --assignee *<id>* **--role** *<role>* **--scope** *<scope>*
Remove a role

OUTPUT AND --QUERY

-o table
Human-readable table

-o json / -o jsonc
JSON (default) or coloured JSON

-o tsv
Plain values for scripts

--query "[].name"
Pick one field from every item

--query "[].{Name:name, Loc:location}"
Build a custom table

OUTPUT AND --QUERY (cont.)

--query "[?location== 'westeurope'].name"
Filter items

JMESPath quoting

Literal	Write it as
String	`'value'` (single quotes)
Number or false	`` `50` ``, `` `false` `` (backticks)
Whole query (bash)	`"..."` or `'...'`
Backticks in bash "..."	escape them: `` \`50\` ``

In bash wrap the query in single quotes so backticks stay literal; in PowerShell double the backticks or escape them. Double quotes inside a filter give empty output.

-o tsv strips JSON quotes, so VAR=$(az ... -o tsv) gives a clean value.

HELP AND EXTENSIONS

az *<group>* **-h**
List subgroups and commands