# Google Cloud Resource Manager

Google Cloud Resource Manager enables you to hierarchically manage resources by project, folder, and organization.

# Organization

- Root node for Google Cloud resources.
- Includes two roles:
  - Organization Admin: gives control over all cloud resources.
  - Project Creator: gives Project creation rights.

## **Folders**

# **Projects**

- Track resources and quota usage.
  - Enable billing.
  - Manage permissions and credentials.
  - Enable services and APIs.
- Projects use three identifying attributes:
  - Project Name
  - Project Number
  - Project ID
- Managed through the Cloud Console or the Cloud Resource Manager API.

#### **Project Quotas**

There to protect you from a shocking bill.

- Applies to all resources.
- Three categories:
  - How many resources can you create per project.
  - How quickly you can make API requests in a project (rate limit).
  - Per region quotas.
- Examples: 5 networks per project, 24 CPUs per region per project.
- Can be increased.

## Labels

Utility for organizing resources.

- Attached to resources such as VMs, disks, snapshots, etc.
- Managed through the Cloud Console or API (not in gcloud).
- Enables searches through all resources with filtering.
- Labels can be used in scripts.

Note: Use 'Show Info' to bulk edit within the Cloud Console

Note: Labels are not 'Tags'. Tags are used for networking (routes, firewall rules, etc).

# Billing

• Can be exported to BigQuery for analysis.