Before you grant an IAM role to a user for a resource, you might want to know what roles are available to grant on a particular resource.

A role is grantable on or above a resource if it contains any permissions for that resource type. For example, the storage.admin role grants permissions to the storage.buckets.get and storage.objects.get APIs, so it is grantable on the *Storage Buckets* and *Storage Objects* resource types.

Roles can also be granted "above" the resource types that their permissions are defined for. In other words, roles for lower-level resources can be granted on a resource that is higher in the Google Cloud resource hierarchy. For example, the storage.admin role can also be granted at the project or organization levels, in addition to *Storage Buckets*.

Permissions granted by a role only affect resources at the specified level or below; they do not affect higher-level or peer resources. Additionally, when a role is granted on a resource, only permissions applicable to the given resource are granted, regardless of the role's name, description, or other permissions it contains. For example, assigning the role resourcemanager.organizationAdmin (which grants the permission resourcemanager.projects.list) to a user on the project level only grants them permissions for that specific project. It will **not** allow them to list or administer all projects in the organization. Similarly, assigning the compute.admin role on a specific Compute Engine instance only grants permissions for that instance, not others in the project.

Before you list grantable roles, ensure that the service has been enabled

(/service-usage/docs/enable-disable#enabling) in the project. If a service hasn't been enabled, its roles will not be returned.

In the examples above, the *full resource name* is a scheme-less URI consisting of a DNS-compatible API service name and a resource path.

For example, to return all roles grantable on a project, use:

Lower-level resources have a more detailed fully qualified name. For example, use the following to return all roles grantable on a Compute Engine instance:

- Read about the available <u>Cloud IAM roles</u> (/iam/docs/understanding-roles).
- Learn how to <u>grant, change, and revoke a member's access</u> (/iam/docs/granting-changing-revoking-access).
- See examples of resource names (/iam/docs/resource-names) for different types of resources.