### Difference Between Primitive, Predefined, and Custom Roles

#### 1. Primitive Roles

These are the most basic and broad roles. There are only three of them:

* Viewer: Can only view resources
* Editor: Can view and modify resources
* Owner: Has full control, including managing permissions

They are easy to use but too general for most real world setups, especially in production.

#### 2. Predefined Roles

These roles are more specific and are created by Google. They are meant for particular services or tasks.

For example:

* **Compute Viewer:** Can view Compute Engine resources
* **Storage Object Admin:**  Full control over Cloud Storage objects

These are better than primitive roles because they offer more control over what a user or service account can do.

#### 3. Custom Roles

Custom roles are roles that we create ourselves. We can pick exactly which permissions to include based on the task.

#### Summary

| Role Type | Who Defines It | Level of Control | Best Used For |
| --- | --- | --- | --- |
| Primitive | Google | Very broad | Simple setups, not recommended for production |
| Predefined | Google | Task-specific | Common use cases like storage, compute, logging |
| Custom | You | Very specific | Fine-grained access control for special needs |