

GOOGLE CLOUD PLATFORM

CLOUD DATASTORE





WHAT IS CLOUD DATASTORE?

Description

- A scalable, fully-managed NoSQL document database for your web and mobile applications.

Good for

- Semi-structured application data
- Hierarchical data
- Durable key-value data

Common Workloads

- User profiles
- Product catalogs
- Game state





FEATURES

- **Atomic transactions**
- **High availability of reads and writes**
- **Massive scalability with high performance**
- **Flexible storage and querying of data**
- **Balance of strong and eventual consistency**
- **Encryption at rest**
- **Fully managed with no planned downtime**





ENTITIES, PROPERTIES, AND KEYS

- Cloud Datastore stores data in entities, properties and kinds
- Entities of the same kind can have different properties
- Different entities can have properties with the same name but different value types

DATASTORE	FIRESTORE	RELATIONAL DATABASE
KIND	COLLECTION GROUP	TABLE
ENTITY	DOCUMENT	ROW
PROPERTY	FIELD	COLUMN
KEY	DOCUMENT ID	PRIMARY KEY





DATASTORE VS. TRADITIONAL

- Cloud Datastore writes at scale by automatically distributing data as necessary.
- Cloud Datastore reads at scale because the only queries supported are those whose performance scales with the size of the result set
- Cloud Datastore does not include support for join operations, inequality filtering on multiple properties, or filtering on data based on results of a subquery.
- Cloud Datastore is schemaless.





CLOUD FIRESTORE OR DATASTORE

Cloud Firestore is a superset of Cloud Datastore, and can run in a backwards-compatible *Datastore mode*

Cloud Firestore in Native mode (beta)

- Designed for use for mobile and web apps.

Cloud Firestore in Datastore mode (beta)

- Firestore in Datastore mode provides an improved Cloud Firestore storage layer while keeping Cloud Datastore system behavior.

Cloud Datastore

- If your app requires a service level agreement (SLA), choose Cloud Datastore.





DEMO: CREATE A DATASTORE

1. Navigate to Storage > Datastore
2. Click on Create Entity
3. Specify Kind
4. Add Properties as required
5. Press the Create button





REAL WORLD EXAMPLE

