

# Unity Catalog



# Learning Objectives

- Understand what is Unity Catalog
- Become familiar with Unity Catalog architecture
- Describe Unity Catalog identities and identity federation

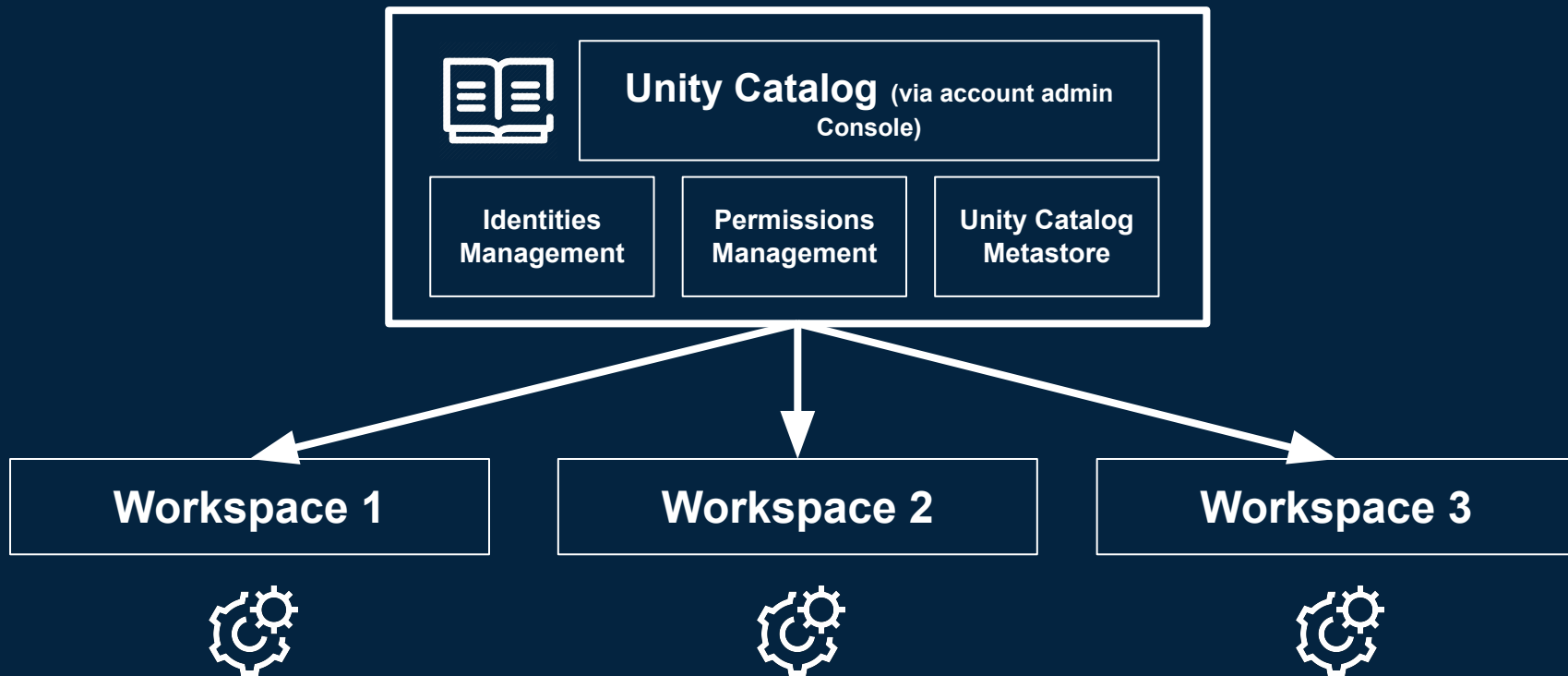


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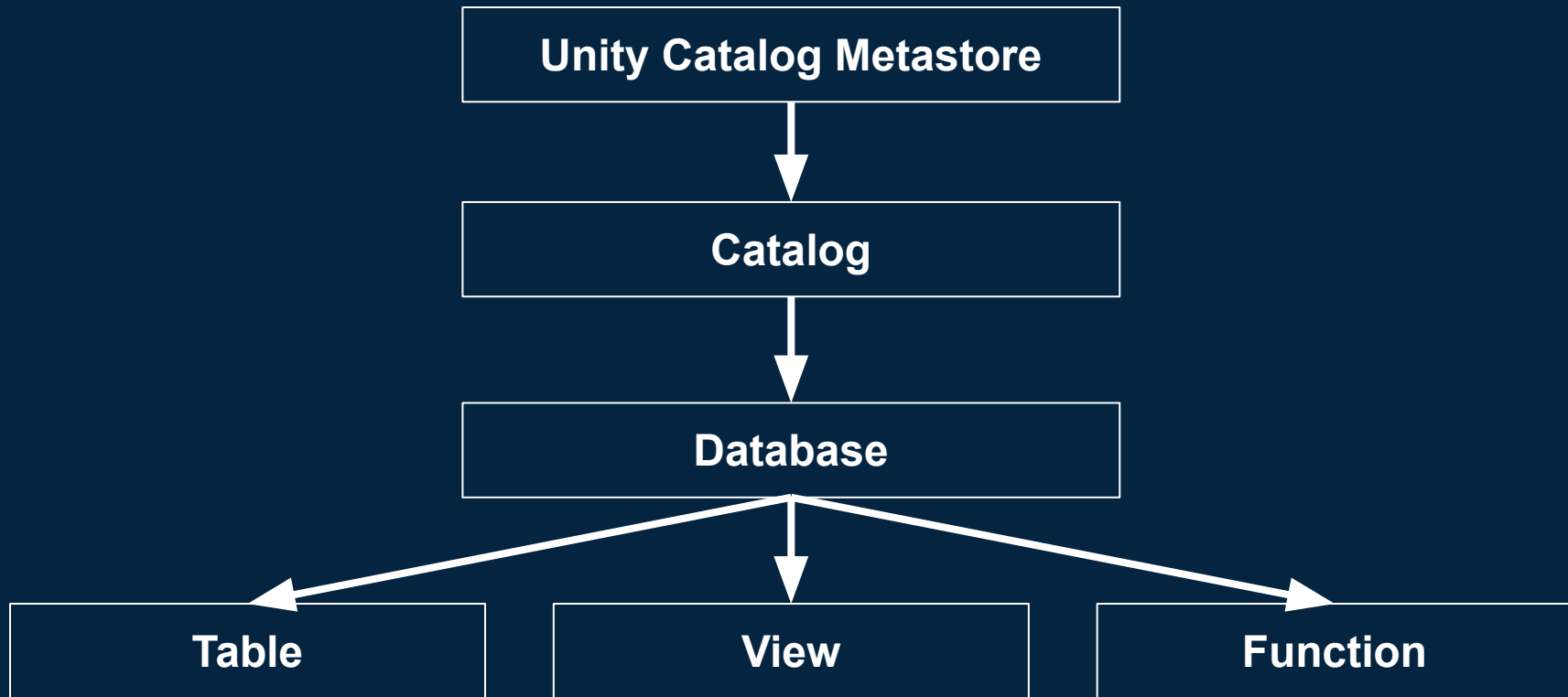
# Unity Catalog

- Centralized data governance solution
- Cloud vendor agnostic
- Provides data governance for all data objects and BI, ML, AI assets
- Provides data search and discovery services
- Provides automated data lineage
- Comes with a feature called Identity Federation

# Unity Catalog architecture



# Unity Catalog data objects hierarchy



# Unity Catalog fully qualified name space

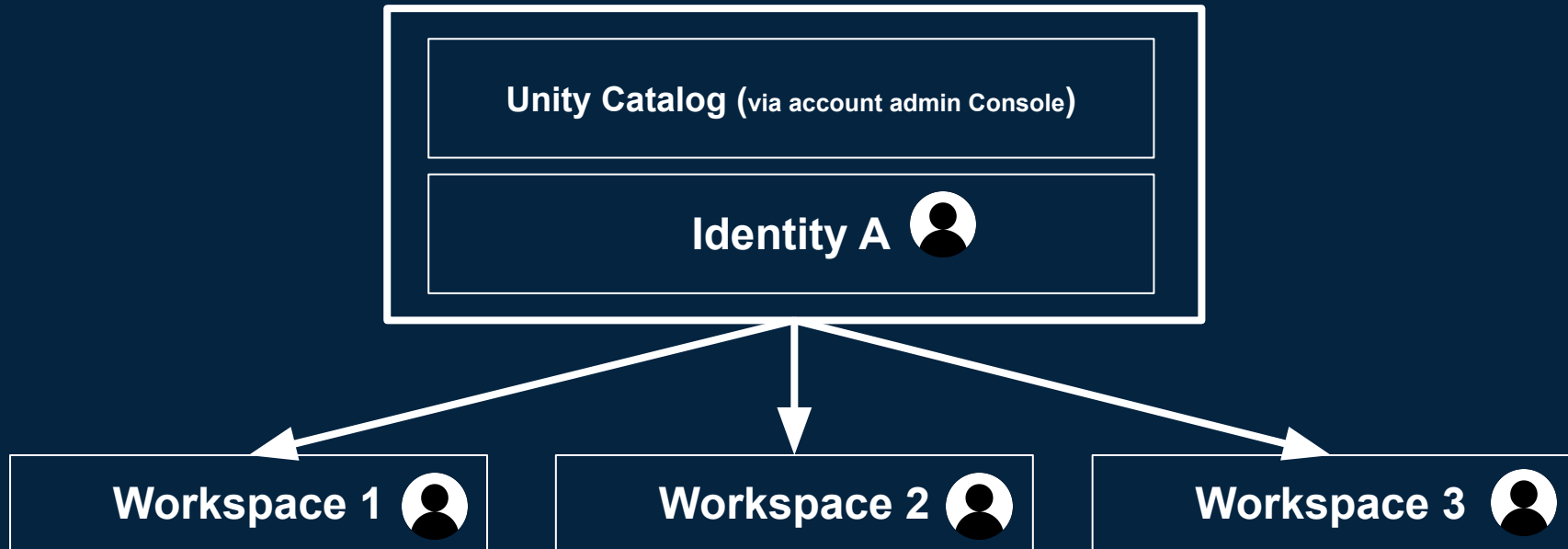
- catalog.database.data\_object
- `SELECT * FROM catalog_one.database_one.my_table`

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# Unity Catalog Identities and Identity Federation

- Users, identified by email address
- Service Principals, identified by an application ID
- Groups, identified by a group of users and/or Service Principals
- Databricks Identities exist at an account and at a workspace level
- With Identity Federation an identity is created in Unity Catalog once
- That Identity can be assigned to one or more workspaces

# Unity Catalog Identity Federation





# Unity Catalog Privileges on data objects

Privilege	Description
SELECT	Query or read an object
MODIFY	Add, delete, update, and modify data on an object
CREATE	Create an object

**USAGE:** it has no effect, but it is required to perform any action, on any object

# Unity Catalog Privileges on storage objects

Privilege	Description
READ FILES	Read a file
WRITE FILES	Write to a file
EXECUTE	Grants execution of User Defined Functions

# Unity Catalog governance model

- GRANT **privilege** ON **data\_object** TO **user\_or\_group\_of\_users**
- GRANT **SELECT** ON **TABLE** TO **user\_user@company.com**

