Asmita Porwal
Batch-1
Day-21
19/02/2024
Data engineering

Assignment-21

Unity Catalog :

Unity Catalog provides centralized access control, auditing, lineage, and data discovery capabilities across Azure Databricks workspaces. Key features of Unity Catalog include: Define once, secure everywhere: Unity Catalog offers a single place to administer data access policies that apply across all workspaces. Standards-compliant security model: Unity Catalog's security model is based on standard ANSI SQL and allows administrators to grant permissions in their existing data lake using familiar syntax, at the level of catalogs, databases (also called schemas), tables, and views. Built-in auditing and lineage: Unity Catalog automatically captures user-level audit logs that record access to your data. Unity Catalog also captures lineage data that tracks how data assets are created and used across all languages. Data discovery: Unity Catalog lets you tag and document data assets, and provides a search interface to help data consumers find data. System tables (Public Preview): Unity Catalog lets you easily access and query your account's operational data, including audit logs, billable usage, and lineage.
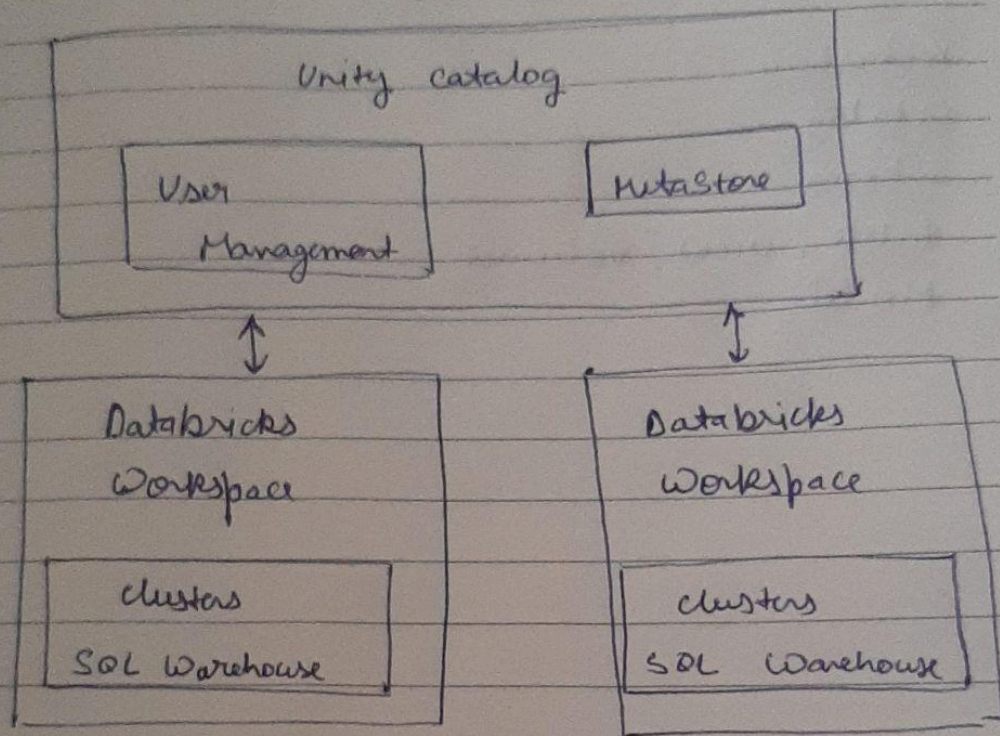
Handwritten Notes:

- Unity Catalog

It provides centralized access control, auditing, lineage and data discovery capabilities across Azure databricks workspace.

```
┌─────────────────────────────────────────────┐
│              Unity catalog                    │
│   ┌──────────────┐      ┌──────────────┐     │
│   │ User         │      │ MetaStore    │     │
│   │              │      └──────────────┘     │
│   │ Management   │                            │
│   └──────────────┘                            │
└─────────────────────────────────────────────┘
          ↕                      ↕
┌──────────────────┐   ┌──────────────────┐
│ Databricks       │   │ Databricks       │
│ Workspace        │   │ Workspace        │
│ ┌──────────────┐ │   │ ┌──────────────┐ │
│ │ clusters     │ │   │ │ clusters     │ │
│ │ SQL Warehouse│ │   │ │ SQL Warehouse│ │
│ └──────────────┘ │   │ └──────────────┘ │
└──────────────────┘   └──────────────────┘
```

Key features of Unity catalog !

- Define once, secure everywhere
- Standards - compliant security model
- Built in auditing and lineage
- Data discovery
- System tables (Public Preview)

How does unity catalog govern access to data and AI assets in Cloud object storage?

- The unity catalog object model

1. metastore
2. Catalog
3. Schema
4. table, view, volumes
5. Model