Coding Assessment

Name: Jeevan Sai Badana

Mail: jeevansai100@gmail.com

Date: 21-02-2024

**Db coding assessment question 2**

**Explain Overview of 3 level namespace and creating Unity Catalog objects.**

**Solution:**

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.

**The Unit Catalog Object model:**

In Unity Catalog, the hierarchy of primary data objects flows from metastore to table or volume:

**Metastore:** The top-level container for metadata. Each metastore

exposes a three-level namespace (catalog.schema.table) that organizes your data.

**Catalog:** The first layer of the object hierarchy, used to organize your data assets.

**Schema:** Also known as databases, schemas are the second layer of the object hierarchy and contain tables and views.

**Tables, views, and volumes.** At the lowest level in the data object hierarchy are tables, views, and volumes. Volumes provide governance for non-tabular data.

**Models:** Although they are not, strictly speaking, data assets, registered models can also be managed in Unity Catalog and reside at the lowest level in the object hierarchy