**Phase 2 Document: Azure Databricks Setup and Configuration**

**Objective**

Implement a traditional ETL workflow using **Azure Databricks**, configure **Delta Live Tables**, set up **Unity Catalog (Metastore)**, and establish secure connections with **Azure Data Lake Storage (ADLS)**.

**1. Azure Databricks - Workflow Setup**

* **ETL Framework**:  
  Implement a traditional ETL framework using scheduled jobs inside Azure Databricks.
* **Delta Live Tables**:
  + Utilize a **declarative** ETL approach where transformations and data flow are defined at a high level.
  + No need to manually code each operational step.
  + Focus on building pipelines declaratively for easier management.

**2. Unity Catalog Metastore Configuration**

**Admin Terminal Access**

1. **Login to Databricks Account Console**:
   * Go to: [accounts.azuredatabricks.net](https://accounts.azuredatabricks.net/)
   * Select your profile > **Manage Account**
   * Navigate to **Azure Entra ID** and **retrieve the KEY**.
2. **Login Procedure**:
   * Use the KEY to log in at [accounts.azuredatabricks.net](https://accounts.azuredatabricks.net/).

**Account Console Setup**

* **User Management**:
  + **Add User**:
    - Add your admin account (use a Gmail address if required).
    - Assign the **Role**: Account Admin.
* **Create Metastore**:
  + Name: carsproject
  + Region: UK South
  + ADLS Path: (Example path — to be confirmed)

**3. Resource Setup - Azure Storage Access**

**Access Connector for Azure Databricks**

* Create an **Access Connector**.
* Assign **Storage Blob Data Contributor** role to this connector in **Azure Data Lake**.

**Azure Data Lake Configuration**

* Create a **container** named:
  + unityMetaStore
* Sample connection URI:
* unityMetaStore@azstrgaccenterprisecars.dfs.core.windows.net
* **Resource ID**:
  + Copy the **Resource ID** of the created Access Connector for credentials.

**4. Credentials Creation**

To enable **Databricks** to interact with the **Azure Data Lake** (read/write operations):

* **Create Credentials** inside Databricks:
  + Use the **Access Connector ID**.
  + Example Credential Key (sample):
  + GX9xBZ~dz%S~Pp5

**Summary Checklist**

| **Step** | **Action** | **Status** |
| --- | --- | --- |
| 1 | Set up Azure Databricks ETL framework | ⬜ |
| 2 | Configure Delta Live Tables | ⬜ |
| 3 | Access Admin Console with KEY | ⬜ |
| 4 | Add Admin User and Assign Role | ⬜ |
| 5 | Create Unity Metastore carsproject | ⬜ |
| 6 | Set up Access Connector with Storage Blob Contributor | ⬜ |
| 7 | Create Azure Data Lake container unityMetaStore | ⬜ |
| 8 | Create Credentials with Access Connector ID | ⬜ |