Naming Conventions

This document outlines the naming standards used in the **Digital Allyship Toolkit Data Warehouse** to ensure consistency, readability, and maintainability across the Medallion Architecture (Bronze, Silver, Gold).

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General Principles

- **Naming Style:** Use `snake_case` (lowercase with underscores)
- **Language:** English only
- **Avoid Reserved Words:** Do not use SQL keywords (e.g., table, order, select)
- **Singular Naming:** Use singular nouns for entities (user, course, module)
- **Clarity First:** Names must clearly describe business meaning

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Table Naming Conventions

Bronze Layer Rules (Raw Data)

Bronze stores data exactly as received from the **LMS operational database and surveys**.

Pattern

```
<src>_<entity>
```

Where

- `src` = source system name
- `entity` = original table name (no renaming)

Source Systems Used

Source	Meaning
lms	Digital Allyship platform database
survey	assessment forms (CSV ingestion)

Examples

```
lms_users
lms_courses
lms_lesson_activity
lms_quiz_attempts
survey_pre_assessment
survey_post_assessment
```

Rule:
Do NOT rename columns or tables in Bronze.

Silver Layer Rules (Cleaned & Structured)

Silver contains cleaned and validated data structured for analytics.

Pattern

```
<src>_<entity>
```

Rules

- Keep same entity name as Bronze
- Data is cleaned and standardized
- Surrogate keys introduced
- Duplicates removed

Examples

```
lms_users
lms_courses
lms_learning_activity
lms_assessment_results
```

Silver represents the **trusted single source of truth**

Gold Layer Rules (Business Analytics)

Gold contains business-ready dimensional models.

Pattern

```
<category>_<entity>
```

Categories

Prefix	Meaning	Example
dim_	Dimension tables	dim_user
fact_	Fact tables	fact_learning_activity
report_	Aggregated reporting tables	report_engagement_summary

Examples

```
dim_user
dim_course
fact_learning_activity
fact_assessment
report_engagement_summary
report_completion_rate
report_behaviour_change
```

Column Naming Conventions

Surrogate Keys

All dimension tables must use surrogate keys.

Pattern

```
<table_name>_key
```

Examples

```
user_key
course_key
module_key
department_key
```

Technical Columns (Metadata)

System-generated ETL columns must use the dwh_ prefix.

Pattern

```
dwh_<description>
```

Examples

```
dwh_load_date
dwh_update_date
dwh_source_system
dwh_batch_id
dwh_is_current
dwh_valid_from
dwh_valid_to
```

Stored Procedure Naming

All ETL stored procedures follow the pattern:

```
load_<layer>_<entity>
```

Examples

```
load_bronze_lms_users
```

```
load_bronze_survey_pre_assessment

load_silver_lms_users
load_silver_learning_activity

load_gold_dim_user
load_gold_fact_learning_activity
load_gold_report_engagement
```

Quick Summary

- **Bronze** → raw source data (`lms_users`)
- **Silver** → cleaned trusted data (`lms_users`)
- **Gold** → business models (`dim_user`, `fact_learning_activity`)
- **Keys** → `_key`
- **Metadata** → `dwh_`
- **Procedures** → `load_<layer>_<entity>`