This guide outlines the standards for creating and naming database tables in Algoman, including handling multilingual records with additional primary keys and common columns.

#### **1. Naming Convention Structure**

The naming convention for database tables in Algoman follows this pattern:

am\_<application>\_<business\_object>\_<table\_type>

**Components:**

* **am**: Represents **Algoman**.
* **application**: The specific application (e.g., **UMS** for User Management System, **PMS** for Post Management System).
* **business\_object**: The core entity (e.g., **user**, **post**).
* **table\_type**: The type of table:
  + **mst**: Master Table
  + **dtls**: Details Table
  + **trn**: Transaction Table
  + **mpg**: Mapping Table
  + **hst**: History Table

#### **2. Example Breakdown**

##### **User Management System (UMS):**

* **Master Table**: am\_ums\_user\_mst
* **Details Table**: am\_ums\_user\_dtls
  + Includes an additional lang\_id column for multilingual records.
* **Transaction Table**: am\_ums\_user\_trn
* **Mapping Table**: am\_ums\_user\_role\_mpg
* **History Table**: am\_ums\_user\_hst

##### **Post Management System (PMS):**

* **Master Table**: am\_pms\_post\_mst
* **Details Table**: am\_pms\_post\_dtls
  + Includes the lang\_id column for handling multilingual content.
* **Transaction Table**: am\_pms\_post\_trn
* **Mapping Table**: am\_pms\_post\_category\_mpg
* **History Table**: am\_pms\_post\_hst

#### **3. Common Columns**

Each table must include the following four common columns to track record creation and updates. Among these, created\_date and created\_post are **mandatory**:

* **created\_date**: Timestamp for when the record was created. (Mandatory)
* **created\_post**: Numeric identifier for the post responsible for the record creation. (Mandatory)
* **last\_updated\_date**: Timestamp for when the record was last updated.
* **last\_updated\_post**: Numeric identifier for the post responsible for the last update.

#### **4. Details Table - Multilingual Support**

In **details tables**, an additional column will be included to support multilingual records:

* **lang\_id**: Numeric identifier for the language. This creates a one-to-many mapping with the master table, allowing records to be stored in multiple languages.

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#### **5. Example: Product Master and Details Table**

| **product\_id** | **category\_id** | **created\_date** | **created\_post** | **last\_updated\_date** | **last\_updated\_post** |
| --- | --- | --- | --- | --- | --- |
| 1 | 100 | 2024-08-24 10:00:00 | 101 | 2024-08-24 11:00:00 | 102 |
| 2 | 101 | 2024-08-24 10:05:00 | 101 | 2024-08-24 11:15:00 | 103 |

**Master Table: am\_catalog\_product\_mst**product\_id: Primary key of the product.

* category\_id: Foreign key linking to product category (optional).

**Details Table: am\_catalog\_product\_dtls**

| **details\_id** | **product\_id** | **lang\_id** | **product\_name** | **product\_description** | **created\_date** | **created\_post** | **last\_updated\_date** | **last\_updated\_post** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 1 | 1 | Phone | A smartphone with 128GB RAM | 2024-08-24 10:00:00 | 101 | 2024-08-24 11:00:00 | 102 |
| 2 | 1 | 2 | Téléphone | Un smartphone avec 128GB RAM | 2024-08-24 10:05:00 | 101 | 2024-08-24 11:15:00 | 103 |
| 3 | 2 | 1 | Laptop | A laptop with 16GB RAM | 2024-08-24 10:10:00 | 101 | 2024-08-24 11:30:00 | 104 |
| 4 | 2 | 3 | Laptopo | Un ordenador con 16GB de RAM | 2024-08-24 10:15:00 | 101 | 2024-08-24 11:35:00 | 104 |

* **details\_id**: Unique identifier for each record in the details table.
* **product\_id**: Foreign key linking to am\_catalog\_product\_mst.
* **lang\_id**: Language ID, indicating the language of the record.
* **product\_name**: Name of the product in the specified language.
* **product\_description**: Description of the product in the specified language.

#### **7. General Naming Standards**

* **Concise but Descriptive**: Use clear abbreviations and follow the established format.
* **Lowercase**: All table names should be in lowercase.
* **Avoid Reserved Words**: Steer clear of using SQL reserved keywords in table names.
* **Underscores Only**: Use underscores (\_) to separate components in the name.

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#### **8. Compliance with SQL Naming Conventions**

* **Max Length**: Keep table names under 30 characters to ensure compatibility.
* **Start with a Letter**: Begin all table names with a letter.
* **Singular Nouns**: Use singular naming conventions for consistency.