Table Configuration Documentation

Overview
The Table Configuration feature is a powerful administrative tool that allows users to customize how database tables are displayed in the user interface. It provides the ability to rename tables for better readability while maintaining the original database structure.

Purpose

- Provide user-friendly names for database tables

- Add descriptive information about tables

- Manage and organize database table presentations without altering the underlying database structure

Key Features

1. Table Display Management

   - Display Name Configuration: Assign custom display names to database tables

   - Description Addition: Add optional context about the table's purpose

   - Original Name Preservation: Original database names remain unchanged

2. Table Listing

   - Tables are displayed in a paginated list (5 tables per page)

   - Each entry shows:

     o Custom display name

     o Original table name

     o Optional description

3. Access Control

   - Only accessible by administrators

   - Secured with token-based authentication

   - Protected API operations

Workflow

Adding a New Table Configuration

- Click the "Add Table" button

- Fill in:

  o Original Table Name (from dropdown)

  o Display Name

- Optional Description

- Validation includes:

  - Display Name: 3–50 characters, letters/spaces/underscores/hyphens only

  - Description: Max 200 characters, alphanumeric and punctuation allowed

- Submit to save the configuration

Editing Existing Configurations

- Click the edit icon

- Modify Display Name and Description

- Original Table Name is fixed

- Save changes after validation

Deleting Configurations

- Click the delete icon

- Confirm deletion in the dialog

- The configuration is removed (original table remains unchanged)

Validation Rules

Display Name

- 3–50 characters

- Allowed: letters, spaces, underscores, hyphens

- Must be unique

- Cannot be empty

Description

- Optional

- Max 200 characters

- Can include letters, numbers, spaces, punctuation

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API Interactions

Fetching Data

- Configured tables are loaded on component mount

- Available (non-system) tables are shown in dropdown

Data Operations

- Create: POST /rename-tables (auth required)

- Update: PUT /update-renamed-tables/{id} (auth required)

- Delete: DELETE /delete-renamed-tables/{id} (auth required)

- Read: GET /get-renamed-tables (auth required)

User Interface Elements

Main View

- Header with section title and "Add" button

- Paginated table list

- Loading spinner

- Empty state message if no tables configured

Table Entry Display

- Display Name

- Original Table Name

- Description (optional)

- Edit/Delete buttons

Dialog Components

- Add/Edit form dialog

- Confirmation dialog for deletion

- Toast messages for success/failure

Best Practices for Users

Naming Conventions

- Use clear, descriptive display names

- Be consistent

- Avoid unclear abbreviations

Descriptions

- Give meaningful context

- Mention purpose, use case

- Note special handling if needed

Error Handling

- Network issues

- Auth/token errors

- Invalid inputs

- Duplicate names

- Server failures
  All handled via toast notifications with clear messages

Security Considerations

Authentication

- All endpoints require token-based auth

- Tokens are passed in request headers

Authorization

- Restricted to admin-level users

- Unauthorized access is blocked

Data Validation

- Strict backend validation

- Sanitized inputs

- Protection from SQL injection