#### **Group Configuration Documentation**

#### Overview

The Group Configuration system is a management interface that allows administrators to organize database tables into logical groups for better organization and access control. This feature is particularly useful in large systems with numerous tables, helping to categorize and manage them efficiently.

#### **Key Features**

#### **Group Management**

- Create new table groups
- Enable or disable existing groups
- Delete groups
- View all existing groups and their contents

#### **Table Management within Groups**

- Add tables to groups
- Remove tables from groups
- View tables assigned to each group
- Prevent duplicate table assignments across groups

#### **User Guide**

### **Accessing Group Configuration**

- 1. Navigate to the admin section of the application
- 2. Select "Group Configuration" from the admin menu
- 3. The interface will display all existing groups (if any) or a message indicating no groups exist

### **Creating a New Group**

- 1. Click the "Create New Group" button in the top-right corner
- 2. Enter a group name following these rules:
  - o Must be 3-50 characters long
  - o Can only contain letters, spaces, underscores, and hyphens
  - o Must be unique (no duplicate group names allowed)
  - Cannot be empty

3. Click "Create Group" to save

### **Managing Existing Groups**

#### Enable/Disable Groups

- Use the toggle switch next to each group
- Enabled groups are active and accessible
- Disabled groups remain in the system but are inactive

### Adding Tables to a Group

- Click the "Add Tables" button on the desired group
- Select tables from the available list (only unassigned tables will be shown)
- Multiple tables can be selected at once
- Click "Add Selected Tables" to confirm

### Removing Tables from a Group

- Click the trash icon next to the table name
- Confirm the removal in the dialog
- Removed tables become available for assignment to other groups

#### **Deleting Groups**

- Click the delete button (trash icon) on the group
- Confirm deletion in the dialog
- This action cannot be undone
- All table associations will be removed

### **Working Mechanism**

## **Group Storage**

- Groups are stored in the database with the following information:
  - o Group name
  - List of assigned tables
  - o Enable/disable status
  - Unique identifier (row\_id)

# **API Integration**

#### **Group Operations**

• Fetch Groups: Retrieves all existing groups and their details

- Create Group: Creates a new group with the specified name
- Delete Group: Removes a group and its table associations
- Toggle Group: Enables or disables a group

#### **Table Operations**

- Fetch Tables: Retrieves all available tables in the database
- Add Tables: Associates selected tables with a group
- Remove Table: Removes a table association from a group

### **Security and Validation**

#### **Group Name Validation**

- Enforces character limitations
- Checks for duplicate names
- Validates format and length
- Sanitizes input to prevent injection

### Table Assignment Rules

- Prevents duplicate table assignments
- Validates table existence
- Ensures proper permissions

# **State Management**

#### **Group State**

- Tracks existing groups
- Maintains enable/disable status
- Updates table associations

#### **Table State**

- Tracks available tables
- Manages assigned/unassigned status
- Updates UI based on selections

#### **Best Practices for Users**

## **Organization Strategy**

#### **Group Naming**

• Use clear, descriptive names

- Follow a consistent naming convention
- Consider using prefixes for different departments/functions

# **Table Organization**

- Group related tables together
- Consider business function when grouping
- Maintain logical separation of concerns

### **Troubleshooting**

#### **Common Issues**

### **Group Creation Problems**

- Verify name meets requirements
- Check for duplicate names
- Ensure proper permissions

# **Table Assignment Issues**

- Verify table availability
- Check group status (enabled/disabled)
- Confirm proper permissions

### **Error Messages**

The system provides clear feedback for:

- Invalid group names
- Duplicate entries
- Permission issues
- System errors