Performance Module Documentation

Manage your database performance through efficient data deletion and scheduling features.

Introduction

The Performance Module is designed to help Project Managers efficiently manage database performance through data deletion and scheduling features. This interactive UI tool addresses performance issues caused by large, growing tables by providing manual and scheduled deletion capabilities along with comprehensive reporting.

Key Features

Data Management

- Database analysis tools
- Flexible deletion options
- Scheduling system

Performance Monitoring

- Database statistics
- Table-level metrics
- Historical trends

Reporting

- Master data reports
- Deletion logs
- Execution history

Workflow

1 **Database Selection**

Choose target database from dropdown and view available tables

2 **Table Configuration**

Select target table, choose key column, and view table statistics

3 **Deletion Setup**

Select deletion method (days or date) and specify retention period

4 **Execution**

Run immediately or schedule for future execution

5 **Monitoring**

Review logs and analyze performance improvements

6 **Database Overview**

Application-wide database health monitoring

- **Size Metrics:**
  - Total database size
  - Table size distribution
  - total table count
- **Session Management:**
  - Total sessions
  - sessions count in each database

Usage Guide

Manual Deletion

1. Select database from dropdown
2. Choose target table
3. Select appropriate key column
4. Enter number of days to keep or specific date
5. Click "Delete" button
6. Confirm operation in dialog

Scheduled Deletion

1. Complete steps 1-4 from Manual Deletion
2. Click "Schedule" button
3. Select frequency from modal
4. Review next run date
5. Click "Confirm Schedule"

Technical Requirements

Frontend

- HTML5, CSS3, JavaScript
- Bootstrap 5.3
- Select2 for dropdowns

Backend (Flask API)

- Python 3.8+
- Flask 2.0+
- Flask-SQLAlchemy for database operations
- Psycopg2 for PostgreSQL connectivity
- Flask-CORS for cross-origin support

Database

- PostgreSQL
- ANALYZE/VACUUM support
- Job tracking tables

Troubleshooting

Common Issues

- **"Column not found" errors:** Verify column exists in selected table
- **Permission errors:** Check database user privileges