SQL Log Module for Magento 2
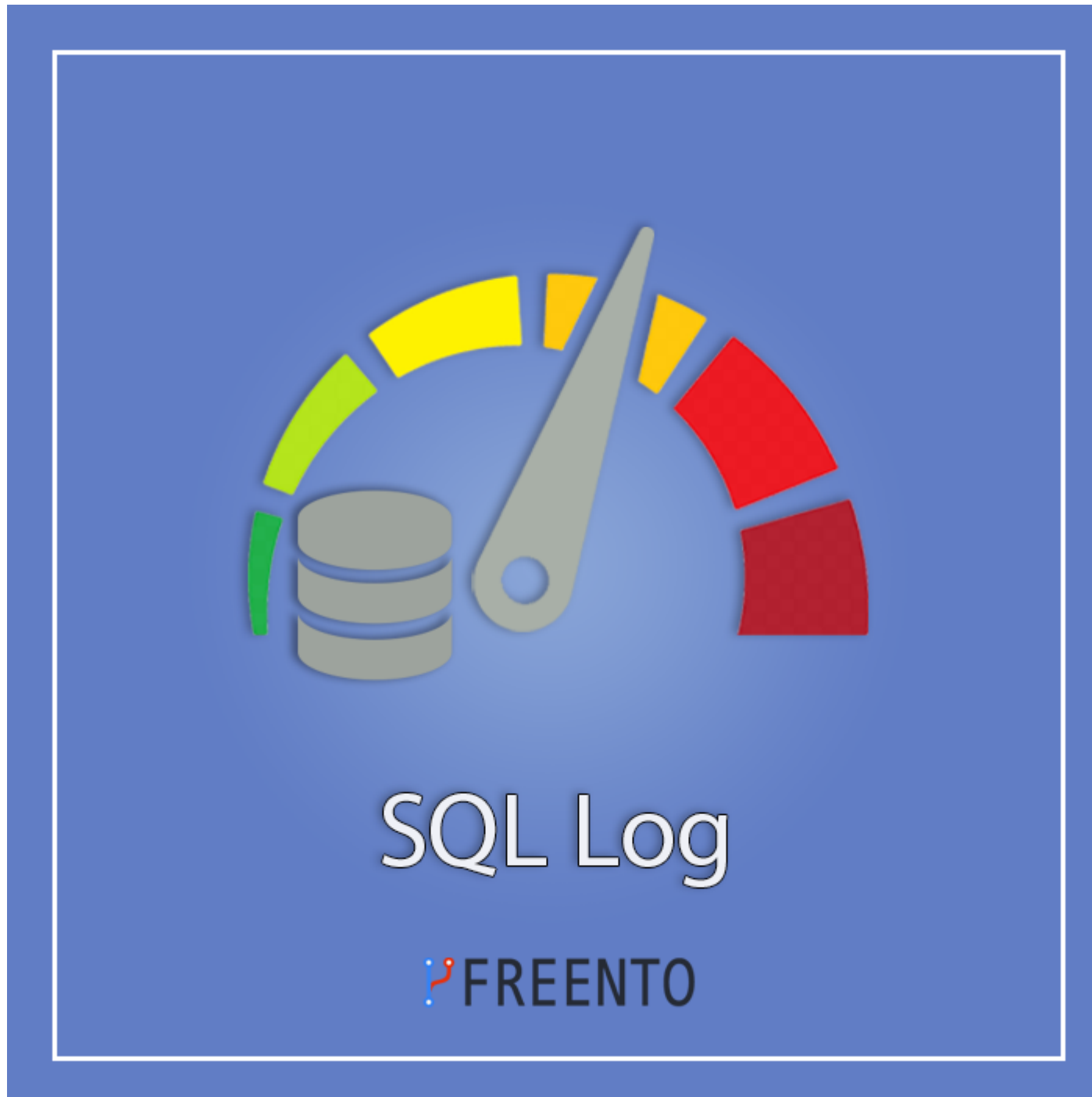

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Extension description

SQL Log Module for Magento 2 by Freento streamlines SQL query logging for enhanced database interaction analysis. Gain control and insight into your Magento database interactions with the Freento SQL Log Module, making performance optimization more accessible.

Main Features:

- Elastic Logging: Detailed info stored in an Elastic database
- Request Segregation: Each action treated as a separate record
- Easy Administration: Enable or disable logging with a few clicks
- Magento Admin Analysis: User-friendly interface with filters and sorting
- In-Depth Query Insights: Explore query specifics for effective issue resolution
- Selective Logging Rules: Define rules for targeted analysis

https://github.com/Freento/sqllog/blob/master/readme.md

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Extension Installation

The extension is distributed for free and can be installed from any of these channels:

Composer Installation

```
composer require freento/sqllog
```

Installation from Commerce Marketplace
1. Login to your account at Commerce Marketplace
2. Go to "My Purchases" section
3. Follow the instructions in the "How to Install" section

Direct download and installation
You can clone or download the extension as a ZIP archive from the public GitHub repository:
https://github.com/Freento/sqllog

Run these steps after the extension installation:
1. bin/magento setup:upgrade
2. bin/magento setup:di:compile
3. bin/magento setup:static-content:deploy

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Module usage

Note: Using the Freento SQL Log Module on production servers is not recommended due to potential performance impacts

1. Logging in Elastic:
   ○ Gathers detailed information about SQL queries, including trace data and execution times, storing it in an Elastic database.
2. Requests Separation:
   ○ Each request, AJAX call, CLI command execution will be separated and displayed as a single record.
3. Easy Administration:
   ○ Manages SQL logging directly from the Magento admin panel with simple clicks for enabling or disabling logging.
4. Advanced analysis directly from Magento admin:
   ○ Accesses a straightforward admin interface to view logged queries. Utilizes filters and sorting options for easy result analysis.
5. Detailed Query Insight:
   ○ Delves into SQL query details, exploring specifics like query type, execution time, and start time for effective resolution of performance issues, with ability to filter and search by specific parameters.
6. Selective Logging Rules:
   ○ Sets rules for selective logging, allowing the choice of specific pages, requests, or CLI commands. This flexibility facilitates targeted analysis and troubleshooting.

How to work with the module on a local environment

Enable logging in the local environment:
   ● Admin > FPS > Sql Log > Configuration > General > Enable for web = Yes. Ensure that Full Page Cache is disabled in the working environment.

Open several pages on the store.

Open FPS > SQL Log > SQL Requests Log. Explore pages with more than 100-200 queries.

Analyze these pages to identify potential optimizations. Analyze queries, stack trace, and other quantitative indicators of query execution.

Things that can be additionally tested

Focus on actions related to adding items to the cart, as well as background tasks (cron jobs, queue).
   ● Add to cart AJAX action.
   ● Cron jobs.

Queue.
   ● This will help identify potential bottlenecks and optimize them.

Usage in Production

Note: Using the Freento SQL Log Module on production servers is not recommended due to potential performance impacts. In case of absolute necessity, follow the recommendations below.

   Limit usage to less frequently accessed pages.

   Use regular expressions (REGEXP) to filter URL addresses and selectively enable logging using Allowed URLs feature.

Configuration:

General Settings:

1. Prepare Elastic:
   ● Click on the "Prepare Elastic" button to populate the var/fps/sql-log.json file with Elastic connection data, create or recreate the Elastic index, and clear module-related Elastic DB data.
2. Enable for Web:
   ● Select "Yes" to enable SQL request collection on web pages (frontend, backend).
   ● If selected, additional options for "Allowed URLs" and "Disallowed URLs" will be available.

   Allowed URLs:
   ● Enter regular expressions to specify allowed URLs.
   ● Examples are provided for guidance.

   Disallowed URLs:
   ● Enter regular expressions to specify disallowed URLs.
   ● Examples are provided for guidance.
3. Enable in CLI:
   ● Select "Yes" to enable SQL request collection in CLI (e.g., cron, queue, bin/magento).

- If selected, additional options for "Allowed Commands" and "Disallowed Commands" will be available.

Allowed Commands:
- Enter regular expressions to specify allowed CLI commands.
- Examples are provided for guidance.

Disallowed Commands:
- Enter regular expressions to specify disallowed CLI commands.
- Examples are provided for guidance.

Web Page Logging:

- Web page logging is conditional on the "Enable for Web" setting.
- If enabled, SQL queries will be logged based on the specified URL patterns.

CLI Logging:
- CLI logging is conditional on the "Enable in CLI" setting.
- If enabled, SQL queries will be logged based on the specified CLI command patterns.

SQL Requests Logging:

SQL Requests Log:
- Navigate to "FPS > SQL Log > SQL Requests Log."

On this page, find out which actions are causing too many database queries.
- View a list of logged actions (web requests or CLI commands) sorted by date.
  - Columns:
    - Action Path (sortable, filterable)
    - Request Date (sortable, filterable)
    - Number of Queries (sortable, filterable)
- Click on "Detailed queries" weblink in the "Action" column to view detailed information.

Detailed Queries:
1. Within an action, view detailed SQL queries by clicking "Detailed Queries."

On this page, find out which database queries are taking too long to complete.
2. View information about each SQL query.
  - Columns:
    - Type (sortable, filterable)
    - Query (sortable, filterable)
    - Executing Time (sortable, filterable)
    - Start Time (sortable, filterable)
3. Click on "Trace" weblink in the "Action" column to view detailed information.

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