

Query Organizer Tool for Oracle DBA

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1. Abstract

This paper presents the need and details of a SQL Query Organizer tool which organizes the queries in a specific format and runs them against the oracle database. Architecture of the web base tool developed is discussed along with new advancements like running on click, sharing in XML format and formatting output using graphical tools that can be added are suggested.

2. Introduction

I am working as Oracle Database Administrator (DBA). To maintain and administer Oracle Database I accumulated lot of queries, some of them generic and some of them application specific. I use administration tools like Enterprise Manager, Quest tools (Toad, Spotlight) for the daily administration and monitoring activities.

The environments which I work have different versions of the Oracle database installed from 7 to 10g. The front end application is different for various databases. This makes it more complex for administrator to use any one tool for all databases. There are certain application features to be monitored for each database, which are very specific to application. This cannot be monitored using any Database administration tools.

To ease my administration and monitoring job, I wanted a tool where

- a. I can organize the queries that I wanted to monitor
- b. I can organize the queries in the format I wanted to monitor.
- c. I can add, delete and edit queries.
- d. I can customize and organize queries according to database environment.
- e. I see the output of each SQL query independently, even if I run the queries at once.

To do the above things and ease my administration job for various administration and monitoring activities, I developed a generic tool which

- a. Allowed organizing the queries I wanted to fire against the database
- b. Allowed to organize queries in the form of matrix consisting of buttons and tabs.
- c. Fires set queries automatically against the database.

3. Architecture

The architecture of the application consist

1. Organization Section
2. Administration Section

3.1 Organization Section.

This section allows the DBA to organize his queries in the form of groups and tabs. This allows the DBA to develop his own tool according to his requirement without any development knowledge. Fig 1. Show the overview of this section.

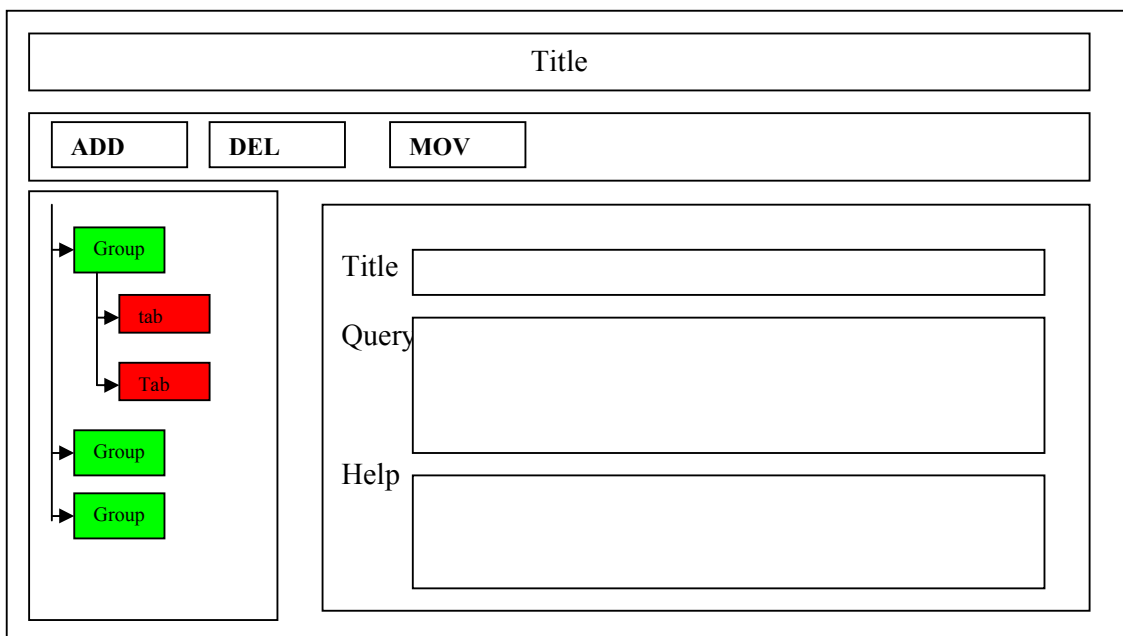


Fig 1. Organizing Queries.

3.2 Administration/Monitoring Section.

This section allows you to fire the queries which are organized using the Organization section. It presents you the page in the form of matrix with Group buttons on the left hand side and corresponding query tabs on top of output window. Choosing the specific group and tab allow you to view the output of corresponding query associated with that in the output window.

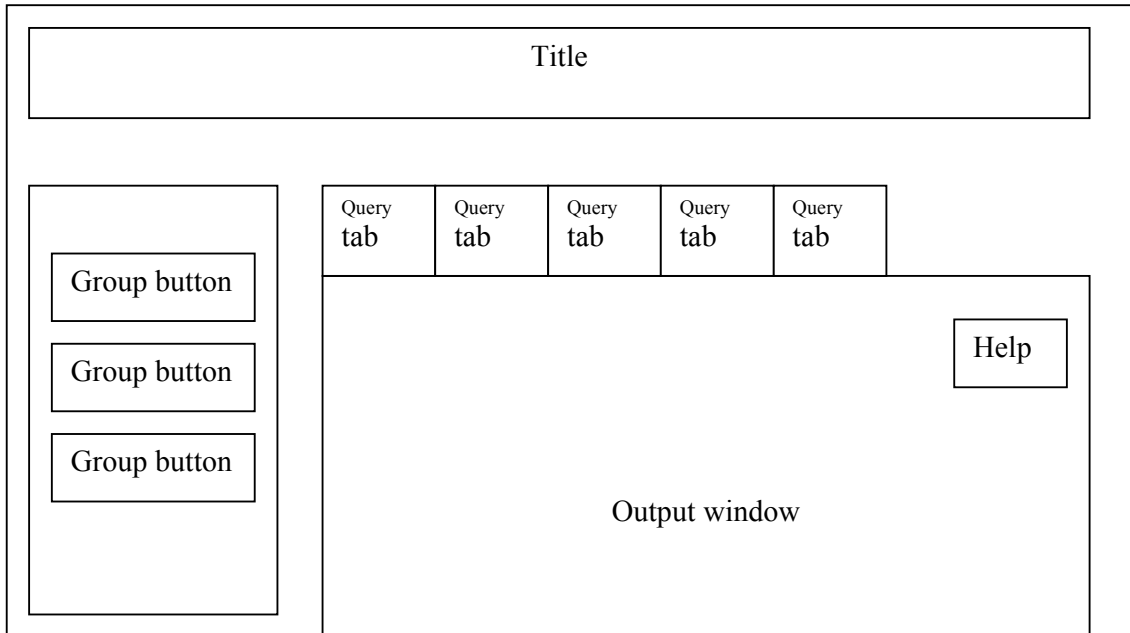


Fig 2 . Front End Overview

4. Overview of the Tool

The tool which I developed was a web based tool with tomcat web server and JSP . This allowed to centralize the tool and allowed user to use the Internet Explorer as front end. Figure 3. show a snapshot of the tool.

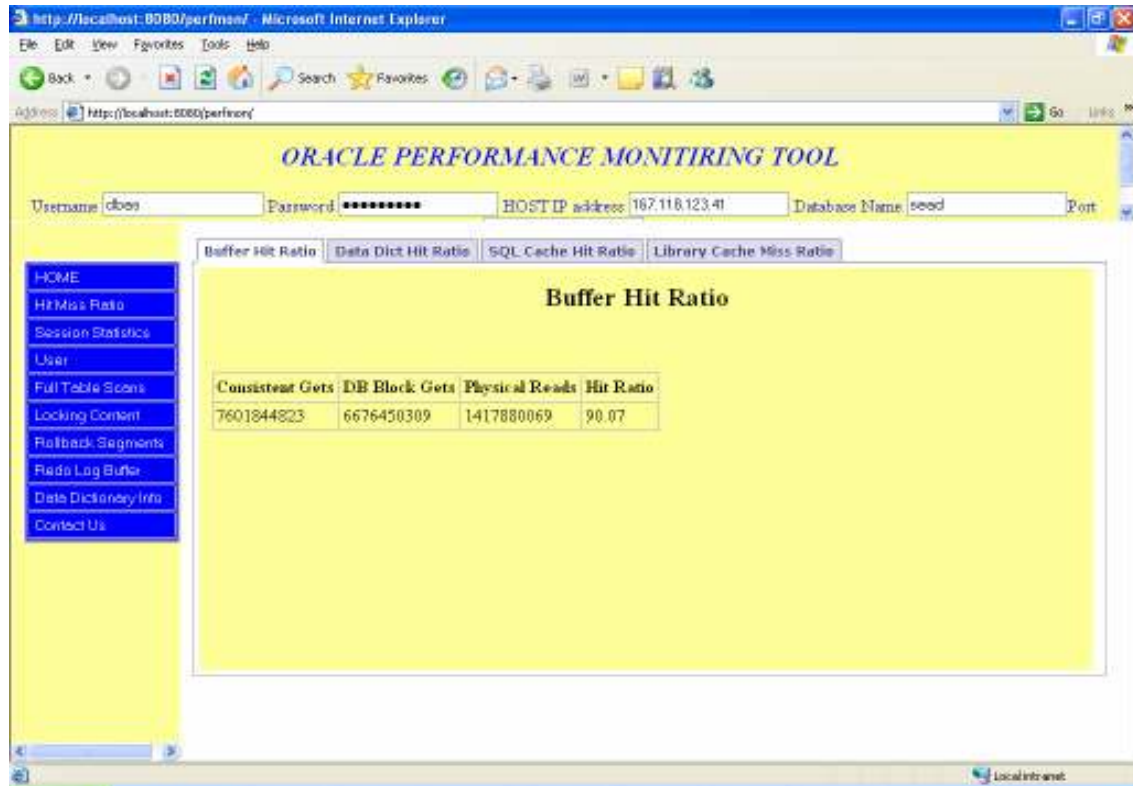


Fig 3. Overview of the Tool.

5. Advancements that can be added.

1. The output is displayed in the form of table. Graphs can be added to display the output in advance formats.
2. The backend storage of queries can be in the format of XML file, which will enable easy plug in and plug out of queries. This enables easy sharing across the people.

6. Advantages of this tool

1. It allows the DBA to develop the monitoring and administration tool according to his requirement.

2. Different queries can be organized together according to the requirement for different versions of the database.
3. Customize and share the queries with others with ease.