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Workload Analysis helps you identify, quantify, and eliminate the reason for regression or improvements.

A common reason for database performance regression is regressed SQL statements caused by query plan change increased data volumes or increased activity in the database.

Workload Analysis performs an analysis of top queries in the database from two different time points expected to b or similar. Regressed statements can then be tuned by using SQL Tuning Advisor or SQL Plan baselines.

Accessing Workload Analysis in Enterprise Manager

You access Workload Analysis in Oracle Enterprise Manager Cloud Control using two methods.

Method 1:

1. Click the **Targets** drop-down list.

2. Select **Databases**.

3. In the **Name** column, select your database name. For example, **rep_database**.

4. From the **Performance** drop-down list, select **Workload Analysis**.

5. In the Database Login screen, select a **Named** or **New** credential, and then click **Login** to access Workload An

Method 2:

1. Click the **Targets** drop-down list.

2. Expand **Databases** and click **Database Instance**.

3. In the **Target Name** column, click the database name. For example, **rep_database**.

4. From the **Performance** drop-down list, select **Workload Analysis**.

5. In the Database Login screen, select a **Named** or **New** credential, and then click **Login** to access Workload An

Overview of Workload Analysis

Workload Analysis provides near real-time analysis of database top SQL statements to identify changed performan reason for changed performance using historical execution statistics.

A workload is a set of SQL statements that you run in the database or PDB. It can be limited to a specific application in the application using filters or it can span the complete database or PDB. These statements with statistics and ex plans are stored in a SQL Tuning Set (STS).When collecting STS from Automatic Workload Repository (AWR) it is lin top N statements that can be modified with `dbms_workload_repository.modify_snapshot_settings(to [number])`.

The Workload Analysis feature compares two SQL tuning sets from different time points in a production database compared to the SQL Performance Analyzer which only analyzes one SQL tuning set in a test database before and change. You can compare the 2 SQL tuning sets either based on a certain criteria or based on the top statements fo database.

While the SQL Performance Analyzer helps to analyze performance data at the database level, Workload Analysis h analyze performance data at the application level.

If you are using a reference workload, then before you start analyzing performance data using Workload Analysis, c SQL tuning set for your workload.

There are two types of Workload Analysis options currently available.

- Scheduled Analysis

- One-Time Analysis

Both scheduled analysis and one-time analysis have options to view data without any time limit.

Related Topics

  - DBMS_WORKLOAD_REPOSITORY package

Using Scheduled Analysis

Scheduled Analysis generates reports based on a schedule configured by the database administrator.

  - About Scheduled Analysis
  - Creating a Scheduled Analysis Task
  - Reviewing the Results of Your Scheduled Analysis Tasks
  - Listing Your Scheduled Analysis Tasks
  - Reviewing Workload and Metric Summary

About Scheduled Analysis

You can use scheduled analysis to create a task that compares 2 SQL tuning sets that run on a schedule such as ho weekly, or monthly.

Creating a Scheduled Analysis Task

Create a Scheduled Analysis Task by providing the Workload Capture details, Workload Comparison details, and Sc time and date of the task.

1. Go to the database main page in Enterprise Manager.

2. From the **Performance** drop-down list, select **Workload Analysis**.

3. Select the **Scheduled Analysis** page.

4. Click **Create Analysis Task** to create a scheduled analysis task for your workload.

5. Enter information for the following sections:

General Options

The options that are available for the various tasks that you can create for Scheduled Analysis.

  - **Name:** Enter a name for the scheduled task.
  - **Description:** Enter a brief description for the scheduled task.

Workload Capture

In the Workload Capture section, enter information about the SQL tuning set and load SQL statements captured fro Automatic Workload Repository (AWR) snapshots.

  - **SQL Tuning Set Name Prefix:** Specify a prefix before the SQL tuning set name.
  - **Load SQL Statements Using Automatic Workload Repository (AWR) Snapshots**
    - **Specify Custom Time Range:** You can specify a time range to capture AWR snapshots that you can then use to load SQL statements when you create a new SQL tuning set.
      - **Start Time:** Specify the start time to capture AWR snapshots from the AWR.
      - **End Time:** Specify the end time to capture AWR snapshots from the AWR.
    - **Quick Select From Snapshots Created in the Past:** You can quickly select the AWR snapshots that are captured in the past from the drop down list by specifying the number of hours or days.
  - **Total Number of SQL Statements Captured:** Specify how you want to capture the SQL statements.
    - **Capture All:** Select this option to capture all the SQL statements.
    - **Capture Top N:** Select this option to capture a specified number of SQL statements such as top ten or top twenty SQL statements.
    - **Filter Option:** You can add filters for Parsing Scheme Name, SQL Text, SQL ID, or Module using operators.

Workload Comparison

Workload comparison has the following options:

  - **Subsequent Comparisons**
    - **Compare using a rolling reference:** You can compare workloads that are captured against the previously captured workloads on a rolling basis. Example: Today's workload against the previous day's workload.