

# Direct Database Analysis

# Objectives

After completing this lesson, you should be able to:

- Create direct database analyses
- Edit XML and SQL on the Advanced tab

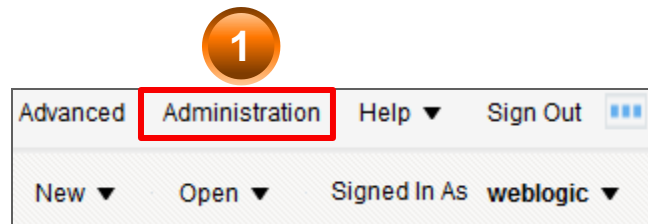


# Direct Database Analysis Privileges

- Users with appropriate privileges can create and issue direct database analyses to physical back-end data sources.
  - Display and manipulate results in Oracle Business Intelligence.
  - Incorporate results into dashboards.
- Required privileges include:
  - Edit Direct Database Analysis
  - Execute Direct Database Analysis

# Changing Direct Database Analysis Privileges

Changes are made in the Oracle BI Administration window.



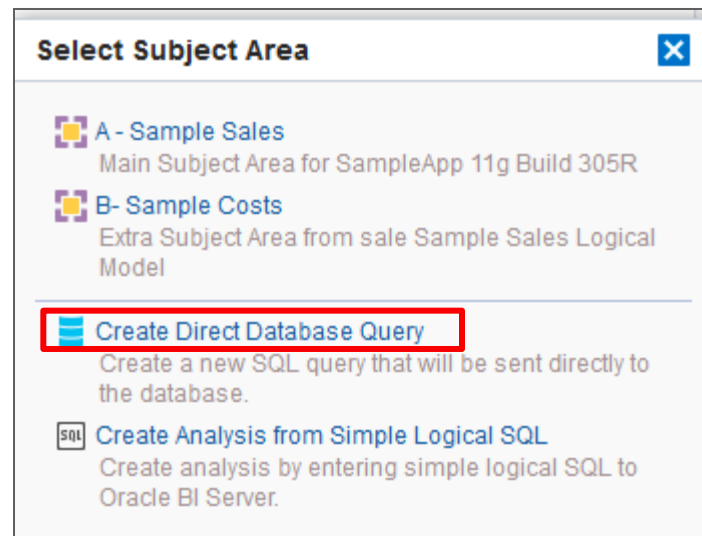
Answers	Create Views	BI Content Author
	Create Prompts	BI Content Author
	Access Advanced Tab	BI Content Author
	Edit Column Formulas	BI Content Author
	Save Content with HTML Markup	BI Service Administrator
	Enter XML and Logical SQL	BI Content Author
	Edit Direct Database Analysis	BI Service Administrator
	Create Analysis From Simple SQL	BI Service Administrator
	Create Advanced Filters and Set Operations	BI Content Author
	Save Filters	BI Content Author
	Save Column	BI Content Author
	Add EVALUATE_PREDICATE Function	BI Content Author
	Execute Direct Database Analysis	BI Service Administrator
	Upload Images	BI Content Author

# Creating and Executing a Direct Database Analysis

1. Create a direct analysis.
2. Construct a direct database analysis.

# 1. Create a Direct Analysis

Click Create Direct Database Request in the Select Subject Area window.



## 2. Construct a Direct Database Analysis

Follow the on-screen instructions to create the analysis.

**Connection Pool**  
Enter the name of the Oracle BI Server connection pool you wish to use for this analysis. This must match exactly the name of an existing connection pool as specified in the physical layer of the Oracle BI Server Administration program.

Sample Relational Connection1

**SQL Statement**  
Enter a database-specific SQL statement. This statement will be issued as-is to the database associated with the specified Connection Pool. Use care when creating direct analysis as Oracle BI Server security rules can not be applied.

SELECT samp\_customers\_D.Name, sum(samp\_revenue\_F.Revenue)  
FROM samp\_customers\_D, samp\_revenue\_F  
WHERE (samp\_customers\_D.cust\_key=samp\_revenue\_F.cust\_key and  
samp\_customers\_D.type\_key='Type 4')  
GROUP BY samp\_customers\_D.Name  
having 90000<sum(samp\_revenue\_F.Revenue)2

Validate SQL and Retrieve Columns4

☐ Bypass Oracle BI Presentation Services Cache3

# Editing XML and SQL

Use the Advanced tab to examine or edit the XML code and the logical SQL statement that are generated for an analysis.

[Criteria](#) [Results](#) [Prompts](#) **Advanced**

### Analysis XML

The following box contains an XML representation of this analysis. Use extreme care when modifying this XML code.

```
<saw:report xmlns:saw="com.siebel.analytics.web/report/v1.1" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="saw:simpleCriteria" subjectArea="A - Sample Sales" >
  <saw:columns>
    <saw:column xsi:type="saw:regularColumn" columnID="c36b176789" >
      <saw:columnFormula>
        <sawx:expr xsi:type="sawx:sqlExpression">"Time"
      </sawx:expr>
    </saw:column>
    <saw:column xsi:type="saw:regularColumn" columnID="c36b176789" >
      <saw:columnFormula>
        <sawx:expr xsi:type="sawx:sqlExpression">"Cust
      </sawx:expr>
    </saw:column>
    <saw:column xsi:type="saw:regularColumn" columnID="c36b176789" >
      <saw:columnFormula>
        <sawx:expr xsi:type="sawx:sqlExpression">"Base Facts"."1- Revenue
      </sawx:expr>
    </saw:column>
  </saw:columns>
</saw:report>
```

☐ Bypass Oracle BI Presentation Services Cache

Partial Update Default ▼

Apply XML

### SQL Issued

The following box contains the SQL code that will be sent to the Oracle BI Server when this analysis is executed.

```
SELECT
  0 s_0,
  "A - Sample Sales"."Cust Regions"."C52 Country Name" s_1,
  "A - Sample Sales"."Time"."T05 Per Name Year" s_2,
  "A - Sample Sales"."Base Facts"."1- Revenue" s_3
FROM "A - Sample Sales"
ORDER BY 3 ASC NULLS LAST, 2 ASC NULLS LAST
FETCH FIRST 65001 ROWS ONLY
```

For use by advanced users and developers who have the appropriate responsibilities



# Using the Advanced Tab to Modify XML

Use the fields in the Analysis XML area to view and modify the XML code for an analysis.

C50 Region	1- Revenue
AMERICAS	18,117,004
APAC	12,889,083
EMEA	18,993,913

1. Create an analysis.

2. View XML representation of the analysis on the Advanced tab.

## Analysis XML

The following box contains an XML representation of this analysis. Use extreme care when modifying this XML code.

```
<sawx:expr xsi:type="sawx:sqlExpression">"Base Facts"."1- Revenue">  
<saw:views currentView="0">
```

3. Modify XML.

## Analysis XML

The following box contains an XML representation of this analysis. Use extreme care when modifying this XML code.

```
<sawx:expr xsi:type="sawx:sqlExpression">"Base Facts"."2- Billed Quantity">  
<saw:views currentView="0">
```

C50 Region	2- Billed Quantity
AMERICAS	1940349
APAC	1385952
EMEA	2031912

5. Analysis is updated.

4. Apply XML.

Apply XML

# Using the Advanced Tab to Modify SQL

Use the SQL Issued area to view and modify the SQL code for an analysis.

C50 Region	1- Revenue
AMERICAS	18,117,004
APAC	12,889,083
EMEA	18,993,913

1. Create analysis.

## SQL Issued

The following box contains the SQL code that will be sent to the Oracle BI Server when this analysis is executed.

```
SELECT
  0 s_0,
  "A - Sample Sales"."Cust Regions"."C50 Region" s_1,
  "A - Sample Sales"."Base Facts"."1- Revenue" s_2
FROM "A - Sample Sales"
ORDER BY 2 ASC NULLS LAST
FETCH FIRST 65001 ROWS ONLY
```

3. Click New Analysis.

2. View SQL.

New Analysis

## Analysis Simple SQL Statement

Enter a simple SQL statement to create an Analysis.

```
SELECT "Cust Regions"."C50 Region" saw_0 "Base Facts"."1- Revenue" saw_1 FROM "A - Sample Sales"
```

4. Modify SQL.

## Analysis Simple SQL Statement

Enter a simple SQL statement to create an Analysis.

```
SELECT "Cust Regions"."C50 Region" saw_0 "Base Facts"."2-Billed Quantity" saw_1 FROM "A - Sample Sales"
```

5

OK

Cancel

6. Analysis is updated.

C50 Region	2- Billed Quantity
AMERICAS	1940349
APAC	1385952
EMEA	2031912

# Using the Advanced Tab to Include Advanced SQL Clauses

Use the Advanced SQL Clauses area to include additional clauses in the SQL code for an analysis.

**Advanced SQL Clauses**

Use the following fields to include additional clauses in the SQL code for this analysis and to change the Subject Area or FROM clause. To add items to the projection list, use the Criteria tab.

⚠ Important: You cannot use the fields in this section, except for the enabled fields, if the analysis includes hierarchical columns, member selections, or groups.

**DISTINCT** ☐ Issue an explicit Distinct

**DIMENSIONALITY** ☐ Show Total value for all measures on unrelated dimensions.

**FROM** Enter the name of the Subject Area

"A - Sample Sales"

or Enter a complex from clause for these criteria.

**GROUP BY** Enter a comma-separated list of columns to Group By.

**Prefix** SET VARIABLE LOGLEVEL=2, DISABLE\_CACHE\_HIT=1;

**Postfix** ORDER BY "Base Facts"."2-Billed Quantity"

Apply SQL

Change the subject area.

Enter a complex FROM clause.

Enter a comma-delimited list of columns to use in a GROUP BY command.

Enter SQL statements to be run before the SQL statement for the analysis runs.

Enter SQL statements to be run after the SQL statement for the analysis runs.

Apply SQL.

# Quiz: Overview

This quiz examines your knowledge of direct database analyses and modifying XML and SQL.



# Quiz



By default, the Execute Direct Database Analysis privilege is set for only those users that are defined as Oracle BI Presentation Server Administrators.

- a. True
- b. False



# Quiz



The Results tab in the Analysis Editor is used to examine the XML code and the logical SQL statement that are generated for an analysis.

- a. True
- b. False



# Quiz



The Create direct database request link is available in the Select Subject Area window.

- a. True
- b. False



# Quiz



Every Oracle BI EE user can create and issue direct database requests to physical back-end data sources.

- a. True
- b. False





# Summary

In this lesson, you should have learned how to:

- Create direct database analyses
- Edit XML and SQL on the Advanced tab



# Practice 19: Overview

This practice covers the following topics:

- Executing a Direct Database Analysis
- Modifying XML code and SQL statements

