



# Module 1 DBMS Extensions and Example Data Warehouses

Lesson 2: Course topics and assignments



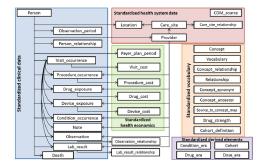
# Lesson Objectives

- Understand course topics and flow
- Understand assessments especially practice and graded problems
- Install and configure Oracle server



## **Course Artifacts**

#### 1: Example DWs



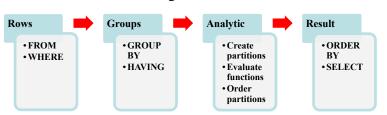
## 2: SQL Subtotal Operators



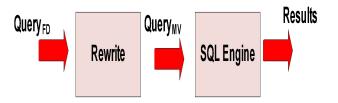




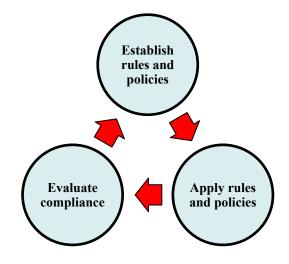
## 3: SQL Analytic Functions



#### 4: Materialized Views



#### 5: Data Governance







# Course Flow

## Module

- DBMS extensions
- Schema patterns
- Example data warehouses

## Module

- GROUP BY review
- Basic SQL subtotal operators
- Advanced SQL subtotal operators

# **Module**

- Analytic function processing
- Basic SQL analytic functions
- Advanced SQL analytic functions

## Module

- Traditional views
- Materialized view processing and design
- Query rewriting
- Oracle data integration tools

# Module 5

- Big data
- Physical design
- Data governance





# Assignments

#### **SQL Subtotal Operators**

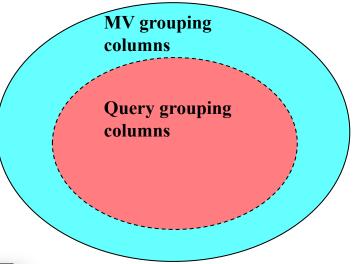
SELECT State, Month, SUM(Sales) GROUP BY ROLLUP(State, Month)

State	Month	SUM(Sales)
CA	Dec	100
CA	Feb	75
СО	Dec	150
СО	Jan	100
СО	Feb	200
CA	-	175
СО	-	450
-	-	750

#### **SQL Analytic Functions**

SELECT CustState, CustName,
SUM(SalesDollar) AS SumSales,
RANK() OVER (PARTITION BY CustState
ORDER BY SUM(SalesDollar) DESC)
SalesRank

### **Query Rewriting**

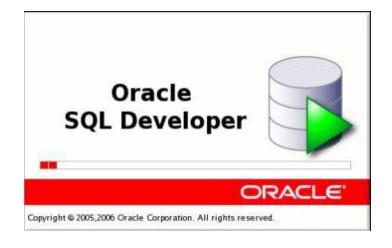






# **Tools**









# Summary

- Unified coverage of relational database support
- Coverage of important data warehouse administration topics
- Assignments for query formulation and materialized view usage
- Usage of Oracle server and client



