Week 12 Meeting Agenda

I. PROC SQL: Subqueries

1. Subquery in WHERE and HAVING Clauses

a. Demonstration 1: Subquery in WHERE Clause that Returns a Single Value

Using the **customers** table, display customers who are older than the average customer.

Step 1: Find the average customer age.

Step 2: Find customers who are older than that age.

Step 3: Combine the first query (subquery) with the second query (outer query) to do the analysis in one query.

How many customers are there in your final report?

b. Demonstration 2: Subquery in HAVING Clause that Returns a Single Value

Using the **customers** table, display countries with average customer age greater than the overall average age.

How many countries have a higher average Age than the average Age of all the regions?

c. Demonstration 3: Subquery Using Different Tables

A manager at Orion Star is interested in customers from Asia/Pacific region. Use the **country_region_lookup** and the **customers** tables to generate this report. Use a subquery that returns multiple values from the lookup table to filter the customers table.

d. Demonstration 4: Subquery That Returns Multiple Values

Using the **employee_master** table, display the employees who earn more than a manager or a specialist. In another report, display employees who are not sales representatives and earn less than a sales representative.

How many employees earn more than a manager or a specialist?

How many employees earn less than a sales rep, but they're not a sales rep?

e. Demonstration 5: Correlated Subquery

Orion Start wants to know the employees earning more than their department's average. Using a correlated subquery, compare an employee's salary with his/her department's average salary.

Use the **employee_master** table.

How many employees earn more than their department's average?

2. In-Line Views (Query in the FROM Clause)

a. Demonstration 6: Using an In-Line View

A manager at Orion Star is interested in the shoe line-group-category combinations that return negative profits on average. Use **purchased_products** and **shoe_vendors** tables.

Using an in-line view, display the product line, group, and category as well as the average revenue, the average expected revenue, and profit margin (revenue-expected revenue) information.

On how many shoe line-group-category combinations does Orion Star lose money?

b. Demonstration 7: Creating and Using a View

Create a view named VWtotalcustomer to display the countries and the total number of customers in each country. Use the **customers** dataset.

3. Subquery in the SELECT Clause

a. Demonstration 8: Using an In-Line View

A manager at Orion Star is interested in the percent profit contributed by each product category.

What is the percent profit of the Outdoors product category?

II. Q&A