Quiz 6 (30 pts)

Assign the ORION library.

1. **Creating a User-Defined Format for Range of Values (4 pts)**

   Create a user-defined format to group **Salary** into four tiers.

   a. Open the Create Format task.
   - Name the format **tiersfmt**.
   - Define the format type as numeric.
   - Use the following labels for each salary range:

Label	Range
Tier 1	100000 (inclusive) to High
Tier 2	60000 (inclusive) to 100000 (exclusive)
Tier 3	25000 (inclusive) to 60000 (exclusive)
Tier 4	Low to 25000 (exclusive)

   b. Run the task and verify that the format was successfully created.

   c. Use the One-Way Frequencies task to analyze **Salary** in the **employee_master** table.
   - Apply the **TIERSFMT** format to the **Salary** variable.
   - Display a vertical bar chart of the frequency values.
   - Order the output data by descending frequencies.
   - Rename the task to **Salary Tier Frequencies**.

   d. Run the task and answer the following question:

   Which tier has the highest number of employees?

2. **Creating a Format from a Lookup Table (4 pts)**

   Build a format that displays manager names to replace **Manager_ID**. Use the format in a report that displays manager names with employee information.

   a. In the Servers pane, expand **Servers** ⇨ **Local** ⇨ **Libraries** ⇨ **ORION**. Right-click **MANAGER_LOOKUP** and select **Properties**. Click the **Columns** tab. Notice that the **Manager_ID** column is numeric and that the length of the **Manager_Name** column is 40. That value is used later when you create the format. Click **Close**.

   b. Open the Create Format from Data Set task.
   - Go to Tasks > Browse > open **Create Format from Data Set**.
   - Use the **manager_lookup** table as the input. (Find it under **Servers** ⇨ **Local** ⇨ **Libraries** ⇨ **ORION > manager_lookup).**
   - Name the format **managerfmt** and save it in the **Work** library.
   - The format should display the **Manager_ID** values as the **Manager_Name** values.

Note: Set an appropriate label length.

Note: The format type must match the type of the data values.

c. Run the task and verify that the format was successfully created.

d. Use the List Data task on the **employee_master** table to produce a report.

- Filter the data to include only the Administration Department.
- Display the **Employee_ID**, **Employee_Name**, and **Job_Title** variables.
- Group and identify the rows of the report by the formatted value of **Manager_ID**.
- Assign a custom label of *Manager* to the **Manager_ID** column.
- Print the number of rows in each manager group.
- Rename the task to **Admin Dept Manager Report**.

e. Run the task and answer the following question:

How many employees report to Kareen Billington?

3. Using a Subquery with Multiple Functions (5 pts)

Orion Star is interested in analyzing the high-end products offered by the supplier Eclipse Inc. which has a Supplier ID: 1303.

The high-end product threshold is calculated as 2 standard deviations greater than the mean of **Mfg_Suggested_Retail_Price**. Any product sold at a price that is greater than this threshold is categorized as a high-end product.

a. Using the **shoe_vendors** table and where Supplier ID= 1303. Write a query that displays the high-end product threshold for the supplier Eclipse Inc.

b. Use the query from step a to display the products offered by the supplier Eclipse Inc. which has a Mfg_Suggested_Retail_Price greater than the threshold.

1) Include **Product_ID, Product_Name,** and **Mfg_Suggested_Retail_Price** in the results.
2) Use the subquery from step a to subset the table.
3) Order the results by descending **Mfg_Suggested_Retail_Price**.
4) Add an appropriate title to the report.

Which Eclipse Inc. high-end product has the *lowest* Mfg_Suggested_Retail_Price in your table?

4. Using a Subquery with Summarized Data (5 pts)

Determine which shoe suppliers sell, on average, more expensive products than the overall US manufacturer average.

Use the **shoe_vendors** table to create a report **showing Supplier_ID, Supplier_Country**, and the **average Mfg_Suggested_Retail_Price,** named Avg_Price, for suppliers whose average suggested price is more than the overall average suggested price for US suppliers.

1) Format Avg_Price with a dollar sign.
2) Order by descending Avg_Price.
3) Add an appropriate title to the report.

How many suppliers are there in your report?

5. Using a Correlated Subquery (6 pts)

Similar to Problem 1, Orion Star is interested in analyzing high-end products offered by its suppliers. This time, create a report for the high-end products sold not only by Eclipse but by any supplier.

Recall that we define a high-end product sold by a supplier if its suggested selling price is greater than (average manuf. selling price + 2* std. dev of the manuf. selling price) for that supplier.

How many distinct suppliers are there in your final report?

6. Creating a View and using In-line Views (6 pts)

Part 1 - Use the **employee_master** table to create a view named **VWMaxSalaryForSalesReps** to display the maximum salaries paid in each **city** for each sales rep level.

Then, write a query that reports the ID, name, city, job title, and salary of employees who are paid the highest sales rep salaries in each city. Use the **VWmaxSalaryForSalesReps** view and **employee_master** table.

Part 2 – Use an in-line view: Copy and paste the query in Part 1. Then, replace the view name **VWmaxSalaryForSalesReps** with the query that creates the view. Re-run the query and confirm that you get the same results as in Part 1.

In your result table, what is the name of the Sales Rep. IV from Sydney who earns the max salary?

Save and submit your work on Canvas.