**Homework SQL Set Operators**

**The orion data are in the sql directory**

1. **Using the EXCEPT Operator**

Create a report that displays the employee identification numbers of employees who have phone numbers, but do not appear to have address information. The **orion.Employee\_phones** table contains **Employee\_ID** and **Phone\_Number**. If an employee’s address is on file, the **orion.Employee\_Addresses** table contains the **Employee\_ID** value and address information. The query should:

* Use the column **Employee\_ID** from **orion.Employee\_phones**.
* Use the appropriate SET operator.
* Use the column **Employee\_ ID** from **orion.Employee\_Addresses**.
1. **Using the INTERSECT Operator**

Create a report that shows the **Customer\_ID** of all customers who placed orders. The **orion.Order\_fact** table contains information about the orders that were placed by Orion Star customers, including **Customer\_ID**. The **orion.Customer** table contains information about
all Orion Star customers, including **Customer\_ID**. The query should do the following:

* Use the column **Customer\_ID** from **orion.Order\_fact**.
* Use the appropriate SET operator.
* Use the column **Customer\_ ID** from **orion.Customer**.
1. **Using the EXCEPT Operator to Count Rows**

Create a report that displays the total count of employees who did not make any charitable donations. The **orion.Employee\_organization** table contains a record for every employee in the Orion Star organization and includes the employee identification numbers. The o**rion.Employee\_donations** table contains records only for employees who made charitable donations, including the **Employee\_ID** value.

1. **Using the INTERSECT Operator to Count Rows**

Create a report that shows the total number of customers who placed orders. The **orion.Order\_fact** table contains information about the orders that were placed by Orion Star customers, including **Customer\_ID**. The **orion.Customer** table contains information on all Orion Star customers, including **Customer\_ID**.

1. **Using the EXCEPT Operator with a Subquery**

Create a report that displays the employee identification numbers and names of sales representatives who did not sell any products in 2007. The **orion.Sales** table contains the **Employee\_ID**
values of all sales representatives. The **orion.Order\_fact** table contains the **Employee\_ID** value of the salesperson, and other information about all sales that were made. The **orion.Employee\_Addresses** table contains the **Employee\_ID** and **Employee\_Name** values of all Orion Star employees. Provide a title (Sales Reps Who Made No Sales in 2007), and include the row number as part of the report.

1. **Using the INTERSECT Operator with a Subquery**

Create a report that includes **Customer\_ID** and **Customer\_Name** for all customers who
placed orders. The **orion.Order\_fact** table contains information about the orders that were placed by Orion Star customers, including **Customer\_ID**. The **orion.Customer** table contains information on all Orion Star customers, including **Customer\_ID** and **Customer\_Name**.

1. **Using the UNION Operator**

Create a report that displays the total salary for female and male sales representatives and
the total number of female and male sales representatives. The **orion.Salesstaff** table
contains information on all the Orion Star sales representatives, including **Salary** and **Gender**.
The query should do the following:

* Create the first row of the report. Use the constant text **Total Paid to ALL Female Sales Representatives**, **SUM(Salary)**, and the total number of rows using the COUNT(\*) function. Summarize data in the **orion.Salesstaff** table for those rows that have **Gender** = '**F**' and **Job\_Title** containing '**Rep**'.
* Use the appropriate SET operator.
* Create the second row of the report. Use the constant text **Total Paid to ALL Male Sales Representatives**, **SUM(Salary)**, and the total number of rows using the COUNT(\*) function. Summarize data in the **orion.Salesstaff** table for those rows that have **Gender** = '**M**' and **Job\_Title** containing '**Rep**'.
* Provide a title (Payroll Report for Sales Representatives) for the report.
1. **Using the OUTER UNION Operator with the CORR Keyword**

Create a report that displays the sales data for the first and second quarters of 2007. The **orion.Qtr1\_2007** table contains the sales data for the first quarter, and the **orion.Qtr2\_2007** table contains the sales data for the second quarter.

1. **Comparing UNION and OUTER UNION Operators**

Stack the **orion.Qtr1\_2007** and **orion.Qtr2\_2007** tables to produce a single report.

* 1. Use the UNION operator to stack the data in **orion.Qtr1\_2007** and **orion.Qtr2\_2007**.
	2. Use the OUTER UNION operator without the CORR keyword to stack the data in **orion.Qtr1\_2007** and **orion.Qtr2\_2007**.