

NAME: \_\_\_\_\_

CS 3330

## Homework #7 - Due 4/21 11:59 PM

Using the classicmodels data, answer the following questions. Note your output may differ than what is provided below.

1. The company wants to standardize their USA customer's phone numbers to contain the correct international prefix. Your manager has been given a report which shows the new standardized format. What is the query used to create this report? (Note only a few rows are displayed here)

Customer	NewPhone	OriginalPhone
▶ King, Jean	+1 702 255 1838	7025551838
Nelson, Susan	+1 415 555 1450	4155551450
Murphy, Julie	+1 650 055 5787	6505555787
Lee, Kwai	+1 212 255 7818	2125557818
Young, Jeff	+1 212 255 7413	2125557413

```
SELECT concat(contactLastName, ',', contactFirstName) as Customer,  
concat('+1', ',', substring(phone, 1, 3), ',', substring(phone, 4, 3), ',',  
substring(phone, 7, 4)) as NewPhone,  
phone AS OriginalPhone  
FROM customers  
WHERE country = "USA";
```

2. Management wants to email all employees based in the USA. Write the query to provide the list of email addresses for the USA employees in two ways.

- a. With an INNER JOIN

```
SELECT email
FROM employees
INNER JOIN offices
ON offices.officeCode=employees.officeCode
WHERE country = "USA";
```

- b. Using a sub-query in the WHERE clause

```
SELECT email
FROM employees
WHERE officeCode IN
    (SELECT officeCode
     FROM offices
     WHERE country = "USA");
```

3. A new Sales Manager joined the team on June 8, 2004 and the executives want to compare how many products the new manager sold vs the old manager for each product line. Write the query that can be used to create this report. (Note only a few rows are displayed here)

productline	Cutoff	TotalProducts
Classic Cars	Post	17790
Classic Cars	Pre	17792
Motorcycles	Post	6897
Motorcycles	Pre	5881
Planes	Post	6370
Planes	Pre	5502

```
SELECT productLine,
CASE
    WHEN orderDate < '2004-06-08' THEN 'Pre'
    ELSE 'Post'
END AS Cutoff,
SUM(quantityOrdered) AS TotalProducts
FROM orderdetails
JOIN products
ON orderdetails.productCode = products.productCode
JOIN orders
ON orders.orderNumber = orderdetails.orderNumber
GROUP BY Cutoff, productLine
ORDER BY productLine, Cutoff;
```

4. Management wants to know how many orders are Large, Medium and Small based on the total quantityOrdered per order. A Small order has less than 150 units, a Medium order has between 150 and 450 units and a Large order has greater than 450 units. Write the query that can be used to create this report.

Size	OrderCount
Large	86
Medium	179
Small	61

```
WITH quantities AS (SELECT SUM(quantityOrdered) AS quantity
FROM orderdetails GROUP BY orderNumber)
SELECT CASE
    WHEN quantity < 150 THEN 'Small'
    WHEN quantity < 450 THEN 'Medium'
    ELSE 'Large'
END AS Size,
COUNT(
CASE
    WHEN quantity < 150 THEN 'Small'
    WHEN quantity < 450 THEN 'Medium'
    ELSE 'Large'
END) AS OrderCount
FROM quantities
GROUP BY Size
ORDER BY Size;
```