Final Lab Solutions

Part One:

Question no 1:

List the names of the cities in alphabetical order where Classic Models has offices.

```
SELECT city
      FROM offices
ORDER BY city;
```

Question no 2:

List the EmployeeNumber, LastName, FirstName, Extension for all employees working out of the Paris office.

```
SELECT employeenumber, lastname, firstname, extension
   FROM employees
   WHERE officecode = 4
```

Question no 3:

List the ProductCode, ProductName, ProductVendor, QuantityInStock and ProductLine for all products with a QuantityInStock between 200 and 1200

```
SELECT ProductCode, ProductName, ProductVendor,QuantityInStock, ProductLine
     FROM products
     WHERE QuantityInStock between 200 and 1200;
```

Question no 4:

List the ProductCode, ProductName, ProductVendor, BuyPrice and MSRP for the least expensive (lowest MSRP) product sold by ClassicModels.

```
SELECT Productcode, ProductName,  PoductVendor,
      BuyPrice, MSRP
      FROM  products
      WHERE  MSRP = (
      SELECT  min(msrp) FROM products)
```

Question no 5:

What is the ProductName and Profit of the product that has the highest profit.

```
SELECT  ProductName, (MSRP – BuyPrice) as PROFIT
      FROM products
   ORDER BY Profit desc limit 1;
```

Question no 6:

List the country and the number of customers from that country for all countries having just two customers. List the countries sorted in ascending alphabetical order. Title the column heading for the count of customers as “Customers”.

```
SELECT distinct country, count(*) as Customers
      FROM "alanparadise/cm"."Customers"
      GROUP BY country
         HAVING COUNT(*) = 2
ORDER 1 asc;
```

Question no 7:

List the ProductCode, ProductName, and number of orders for the products with exactly 25 orders. Title the column heading for the count of orders as “OrderCount”.

```
SELECT  P.ProductCode, ProductName,
        COUNT(ordernumber) as OrderCount
       FROM products P join orderdetails O on
        P.ProductCode = O.ProductCode
GROUP BY ProductCode, ProductName
having OrderCount = 25;
```

Question no 8:

List the EmployeeNumber, Firstname + Lastname (concatenated into one column in the answer set, separated by a blank and referred to as 'name') for all the employees reporting to Diane Murphy or Gerard Bondur.

```
SELECT EmployeeNumber,
         concat(Firstname," ",Lastname) as name
   FROM employees
   WHERE reportsto in ('1002', '1102');
```

Question no 9:

List the EmployeeNumber, LastName, FirstName of the president of the company (the one employee with no boss.)

```
SELECT EmployeeNumber, LastName, FirstName
      FROM employees
      WHERE reportsto is null;
```

Question no 10:

List the ProductName for all products in the "Classic Cars" product line from the 1950's.

```
SELECT  ProductName, ProductLine
        from products
        WHERE ProductLine = "Classic Cars"
          and ProductName like "195%"
```

```
ORDER BY  ProductName;
```

Question no 11:

List the month name and the total number of orders for the month in 2004 in which ClassicModels customers placed the most orders.

```
SELECT count(ordernumber),
       monthname(orderdate) as ordermonth
     FROM  orders
     WHERE extract(year from orderdate) = '2004' group by ordermonth
ORDER BY  1 desc limit 1;
```

Question no 12:

List the firstname, lastname of employees who are Sales Reps who have no assigned customers.

```
SELECT  lastname, firstname
     FROM employees e left outer join customers c on
            e.employeenumber = c.salesrepemployeenumber
WHERE customername is null
      and jobtitle = "Sales Rep";
```

Question no 13:

List the customername of customers from Switzerland with no orders.

```
SELECT  customername , country
      FROM  customers c left outer join orders o on
      c.customernumber = o.customernumber
WHERE   o.customernumber is null
    and country = 'Switzerland';
```

Question no 14:

List the customername and total quantity of products ordered for customers who have ordered more than 1650 products across all their orders.

```
SELECT  customername, sum(quantityordered) as totalq
     FROM customers c
        JOIN orders o ON c.customernumber = o.customernumber
       JOIN orderdetails d ONo.ordernumber = d.ordernumber
GROUP BY customername
HAVING   totalq > 1650;
```

Part no two

Question no 1:

Create a NEW table named “TopCustomers” with three columns: CustomerNumber (integer), ContactDate (DATE) and OrderTotal (a real number.)

```
CREATE table if not exists TopCustomers (
   Customernumber int not null,
   ContactDate    DATE not null,
    OrderTotal     decimal(9,2) not null default 0,
          constraint     PKTopCustomers primary key (CustomerNumber)
 );
```

Question no 2:

Populate the new table “TopCustomers” with the CustomerNumber, today’s date, and the total value of all their orders (PriceEach * quantityOrdered) for those customers whose order total value is greater than $140,000.

```
INSERT into TopCustomers
  SELECT c.CustomerNumber, CURRENT_date,
        SUM(priceEach * Quantityordered)
    from Customers c, Orders o,OrderDetails d
      WHERE c.CustomerNumber = o.CustomerNumber
     and o.Ordernumber = d.Ordernumber
  group by c.CustomerNumber
  having SUM(priceEach * Quantityordered) > 140000;
```

Question no 3:

List the contents of the TopCustomers table in descending OrderTotal sequence.

```
SELECT * from TopCustomers order by 3 desc;
```

Question no 4:

Add a new column to the TopCustomers table called OrderCount.

```
ALTER TABLE   TopCustomers
     add column OrderCount integer ;
```

Question no 5:

Update the Top Customers table, setting the OrderCount to a random number between 1 and 10.

```
UPDATE  TopCustomers
     set o
rdercount = floor((rand()*18));
```

Question no 6:

List the contents of the TopCustomers table in descending OrderCount sequence.

```
SELECT *
    FROM  TopCustomers
    ORDER BY   4 desc;
```

Question no 7:

Drop the TopCustomers table.

```
DROP  TABLE  TopCustomers;
```