Basic query challenges

1. What SQL query will produce the row of customer information for the customer with Juicd card number 1000?
2. What SQL query will determine the total number of orders in the database (the output should be a scalar)?
3. What SQL query will list the names and addresses of the outlet managers? (The tablemanages contains information about managers.)
4. What SQL query will list the names and addresses of the employees who work fulltime at a single Juicd store?
5. What SQL query will list the names, addresses and total working percentage of all Juicd employees (so someone who works 50% at one store and 25% at another store works a total of 75% of their time). Only include employees that are currently working (i.e. appear in the worksAt table).
6. What query will produce a table listing the minimum, maximum and average number of Juicd points outstanding?
7. What SQL query will list each line manager (by name) together with the number of employees they supervise? (supervision is in the lineMgr table)?
8. What SQL query will list the address of each outlet, together with the total number of orders that they have served?
9. What SQL query will list the actual juices by name and their percentages for this particular juice cup (i.e. the juice with cupId 1000)?
10. What SQL command will determine the price in cents of the JuiceCup with cupId 1000? (The table Juice contains the price in cents-per-ml of each juice).

Complex query challenges

1. What SQL query will list the total number of customer orders per outlet (listed by outlet address) per day of the week? (In other words, Outlet 1s orders on Mondays, Tuesdays etc.)
2. What SQL query will list the cup ids of all the JuiceCup that use more than three different ingredients? (You may assume that each row of comprises for a givenJuiceCup is actually a different ingredient.)
3. What single SQL query will list the names and addresses of all Juicd employees who are not working at any of the outlets at the moment?
4. What SQL query will list all the customer orders (by orderId) that consist only of juices (no non-juice items)?
5. Write a function juiceCupCost(id INT) RETURNS DOUBLE that will be called with the id of a JuiceCup and then return the cost (in cents) of that particular JuiceCup. For example, Juice Cup 10 is a 400ml juice that is a 50-50 mixture of raspberry-pear, and it costs $3.40.
6. Write a function juiceOrderCost(id INT) RETURNS DOUBLE that returns the total price of the juice-component of an order. Obviously this function should use your previous function for the cost of each individual JuiceCup.

Additional query challenges

1. Write a stored function totalOrderCost(id INT) RETURNS DOUBLE that returns the total cost (in cents) of the order with ordernumber id. (You should use your previous functions, so make sure you test them well!)
2. Create a view CustomerPricedOrder with columns date DATE,customerId INT,orderId INT and orderCost DOUBLE that provides a more accessible way for the DB user to run queries regarding customer orders. (The columns have their natural meanings)

3. Juicd runs a Customer Of The Month promotion, and sends coupons and other rewards to the highest spending customer each month. Write a stored procedure listCofM()that creates a table customerOfMonth(year INT, month TEXT, COfM INT, cOfMemail TEXT) that lists for each year and month (given as "January", "February" etc) the customer number and email of the biggest spender for that month (you may ignore the possibility that there may be joint winners).