Practice problems: SQL single table queries

This and other SQL practice and homework assignments will involve querying the Company Products database (description is posted on the course web-site) that is available from Prof. Topi’s account.

To reference the tables of that database add prefix htopi. to the name of each table. For example, to reference the customer_s table you should use htopi.customer_s.

1 Basics

1. Display the name and the phone number of those customers whose phone number has area code 617 (first, identify the format in which the phone number is stored).

2. Display all distinct values of product line color codes.

3. Display the Vendor name, full address (street, city, state and zip) and the annual sales of all vendors whose annual sales are between $10,000 and $20,000 (inclusively). Order the results alphabetically by the Vendor name.

4. Display the name and the phone number of every department that is not located in any of the buildings H, G, or B. Order by the results alphabetically by the building name.

2 Grouping and group statistics

1. Display a list of all department numbers together with the number of employees working in that department.

2. Display each product line number together with the average, total, minimum and maximum cost of products in it. Order the results in the decreasing order of the total cost of products in a product line.

3. Display the product line number together with the number of products in it, average and total cost of products in it for those product lines that have the total product price greater than $2000 and at most 5 products in a product line. Order results by the product line number.

3 Nested subqueries (noncorrelated).

1. List the last and first names, department number and the number of dependents of those employees of departments number 4, 7 and 8 that have more dependents than the average number of dependents of a company employee.