

Week 2 Exercises

Those exercises will **not** be graded but similar questions and problems may appear on quizzes and the exam. You can work on those exercises together with other students.

Unless indicated otherwise, answer each question using just **one** query. Your query should also be designed so that it would produce a table that contains **only the information needed to answer the question** and nothing else. For example, if you are asked to find out who owns the youngest pet, your query should produce a table with just one cell (not counting the header row) showing the name of the person who owns the youngest pet. It should **not** show the name of the pet or its age. Even more importantly, it should **not** show information about any other pets. On the other hand, if you are asked who are the *names* and *owners* of the *two* youngest pets, then your query should produce a table with *two* rows, one for the youngest pet and one for the second youngest pet, with both rows showing the name of the pet and the name the pet's owners.

Exercise 1

The DIVESHOP database (available on the database server) is a database of a small company that sells diving vacation tours.

(a) Use the DIVEORDS table in this database to answer the following questions:

- What is the most expensive one-person vacation by for which the customers paid with Visa? (One person vacation means only one person went on the vacation, rather than a group.)
- What is the total cost of all vacations for which the customers paid with Visa?
- What was customer number of the person whose vacation was the most expensive *per person*. (The per-person cost is the total cost of a vacation divided by the number of people who went on the vacation.)
- What is the average cost of vacations per person? (Note: not per *order*, but per *person*. Hint: you will *not* need the AVG function for this.)

(b) Use the BIOLIFE table in the database to answer the following questions:

- How many fishes have scientific names ("Species_Name") that end in "us" or "is"?
- What is the longest fish whose scientific name does *not* end in "us" or "is"?

(c) Use the SITES table to answer the following question:

- From among the sites requires "Beginning" skill level and are at least 20 m deep, which one is the closest to the nearest town?

Exercise 2

Design and create a database table that would store information about customers of an online store. In particular, the database needs to customer's name, postal address, email address, credit card number, as well as username and password. It should also record the last time the customer logged into to the store's website and the last time the customer made a purchase. After you create the table enter data for 10 customers. Then write a query that would return the email addresses of customers who have a credit card on file *and* have logged into the website in 2011 but who have *not* made a purchase this year.