Database Systems

CMPT 308

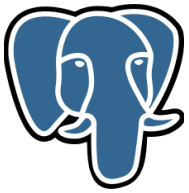
Lab 2: CAP database - 20 points

Goals

- More practice getting around in the PostgreSQL and pgAdmin environments.
- Familiarize yourself with the CAP database data.
- Get some easy lab points.

Instructions

Create our beloved CAP3 database in PostgreSQL. Use the script at http://www.labouseur.com/courses/db/cap3.txt.



1. Execute the following queries (one at a time) from pgAdmin's SQL Tool:

```
select *
from customers;

select *
from agents;

select *
from products;

select *
from orders;
```

Take a screen shot of each query and its results. Compare those to the data in the CAP snapshot at http://www.labouseur.com/courses/db/cap3.pdf.

2. Explain the distinctions among the terms primary key, candidate key, and superkey.

3. Write a short essay on data types. Select a topic for which you might create a table. Name the table and list its fields (columns). For each field, give its data type and whether or not it is nullable.

4. Explain the following relational "rules" with examples and reasons why they are important.
   a. The "first normal form" rule
   b. The "access rows by content only" rule
   c. The "all rows must be unique" rule

Resources

- Chapter 6.1 in our text
- pgAdminIII documentation - http://www.pgadmin.org/docs/
- pgAdmin tag at Stack Overflow - http://stackoverflow.com/questions/tagged/pgadmin
- SQL tag at Stack Overflow - http://stackoverflow.com/questions/tagged/sql

Submitting

Make a PDF document and push your work to your GitHub repository **before** due date (see syllabus). Remember to include your name, the date, and the assignment in the (copious, meaningful, and accurate) check-in messages. Then e-mail Alan the url of your GitHub repository if you have not done so already.