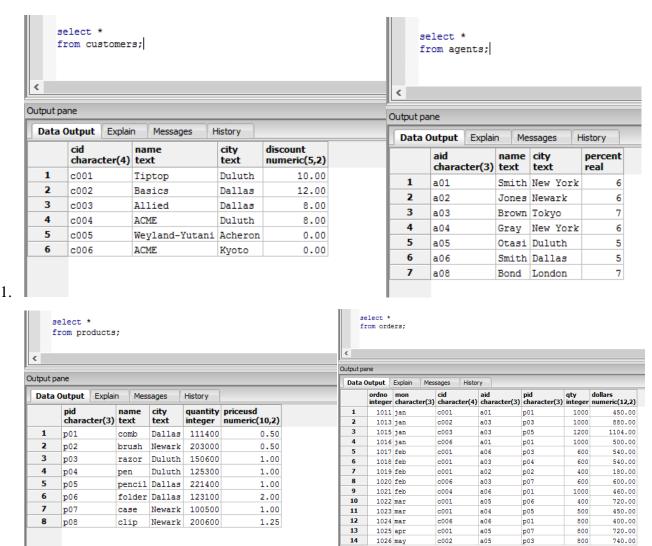
Lab 2: CAP database



- 2. In relational databases, the primary key is the key which is a unique identifier. Every row must have its own primary key. The candidate key is the minimum set of columns that make rows unique. A super key is like a candidate key but it is non-minimal, meaning that multiple rows can share a super key.
- 3. In SQL, there are many different data types to identify pieces of information. Examples would include text, integer, date/time, currency, and other types of data you would store in a database. As an example, we can imagine a database that contains purchases made at a shop at a local store. Each field would contain a primary key to uniquely identify it, and this field would most likely be an integer, called purchase number or something similar. Each field would also have a date/time column for when the purchase was made, and most likely a currency column for the amount of money that the purchase was.

John Randis February 4, 2016 CMPT 308 - Rivas

4. The "first normal form rule" states that the database has to fulfill atomicity. This means that the transaction must fully happen or not happen at all. This rule is important because it minimizes data redundancy and ensures there is no space wasted on duplicate items in the database. The "access rows by content only" rule means we have to ask what, not where. An item in a database should never be accessed by its location, but by its content. This is important because if items are removed or added, it is possible for a given item's location to change, leading to a variety of problems. The third rule, "all rows must be unique," is extremely important. For example, if trying to retrieve a customer's name, two customers may have the same name. That is why they must have a unique identifier, in order to ensure that the row is unique and avoid any problems.