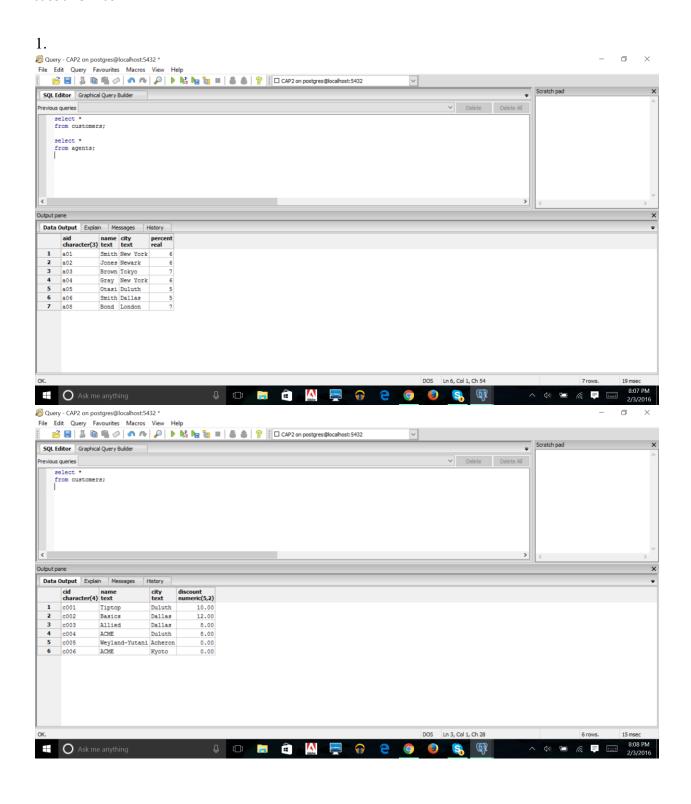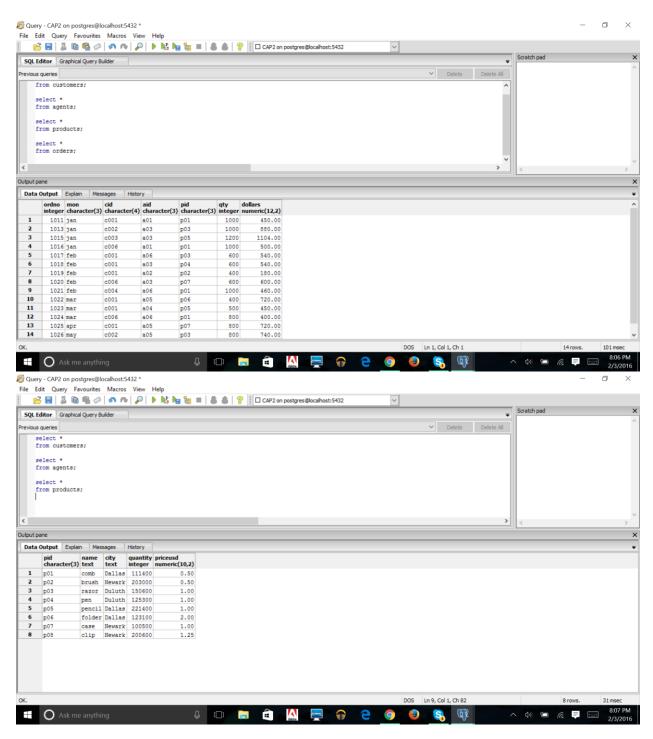Jacob Levinson

1.

2. A superkey is a set of attributes in which the values of the attributes identify only one entity in the set of entities. A candidate key is a minimal version of a superkey. This means that if an attribute is removed, the set of attributes that is left is no longer a superkey. A primary key is a candidate key that is designated by the database designer. All primary keys are candidate keys and every candidate key is also a superkey, but not the other way around.

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3. Data types are how data is classified when it is inputted. An example of how data can be entered into the table is a calendar. The different fields in the data table can be years, months, days, and even hour if it is a daily planner-type calendar. The years' column could have data entered as integers while the months' column would have strings of the twelve months. The days' and hours' columns would be in integers. The 29th of February could be null for the non-leap years.

4. The first normal form rule sets the basic rules for an organized database. It says that the data items must be defined. You have to look at the data that is going to be stored and organize it into columns that define what kind of data is in each column. For example a column called "Orders" would contain the data for all orders placed by customers. This rule also ensures that there is no repeating data. For example, if a customer has multiple orders, it makes sure that instead of repeating the entirety of the customer's information, the database gives the customer an ID and stores the orders under the ID number. Finally the rule of this rule is to create a primary key for each table that you create.

The access rules by content rule talks about how there is no order to the rows. The rows can be accessed by content rather than saying the number of the row. The rows have no IDs and must be called upon by the content of the row.

The all rows must be unique rule covers the idea that the no two rows can be completely identical. This is because if there were two identical rows, one could not specify which of the two rows they want to access since they are the same.