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Professor Labouseur

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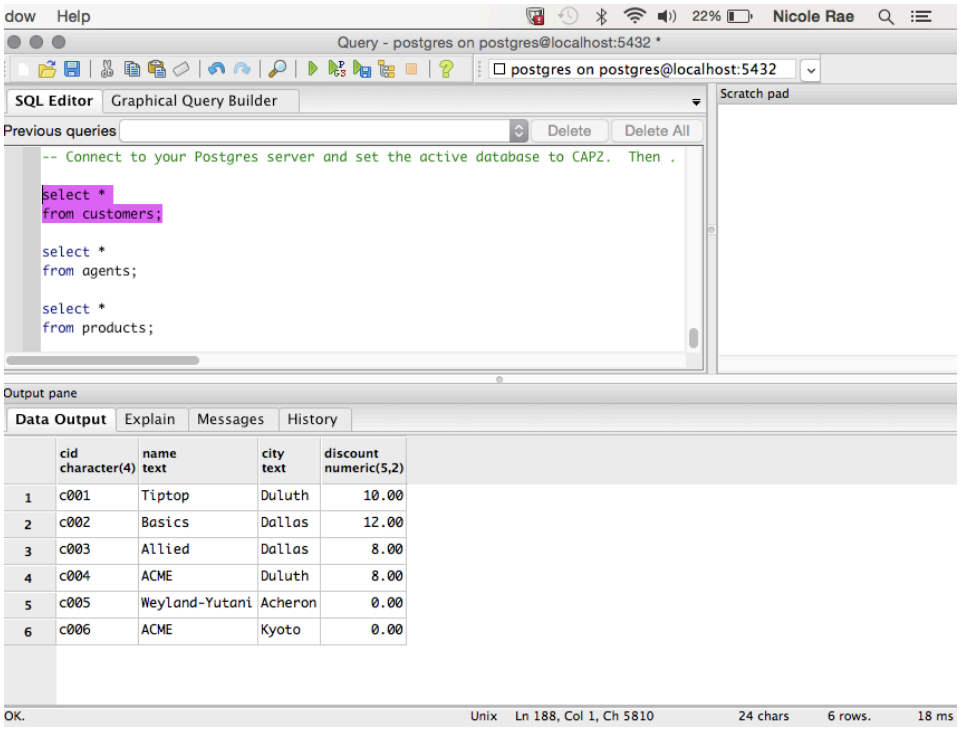
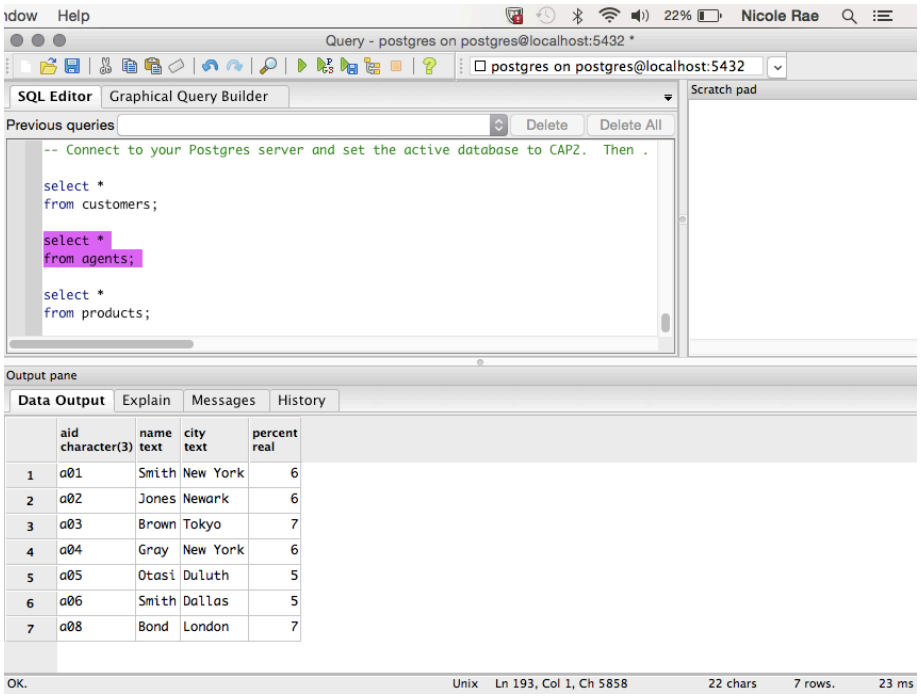
Database Systems – Lab 2

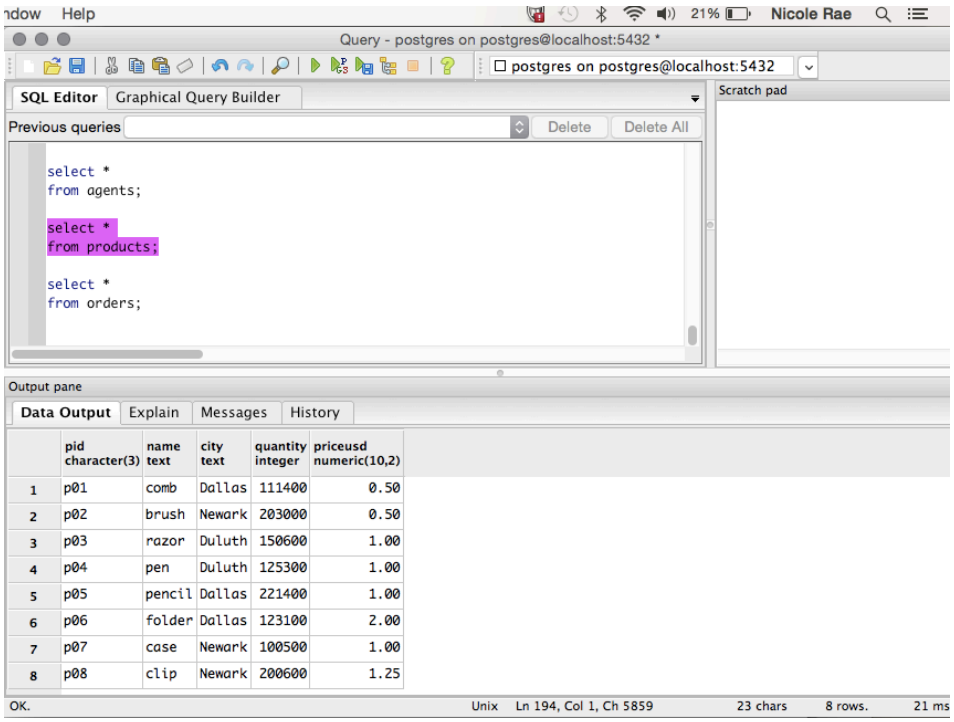
1. select * from customers;



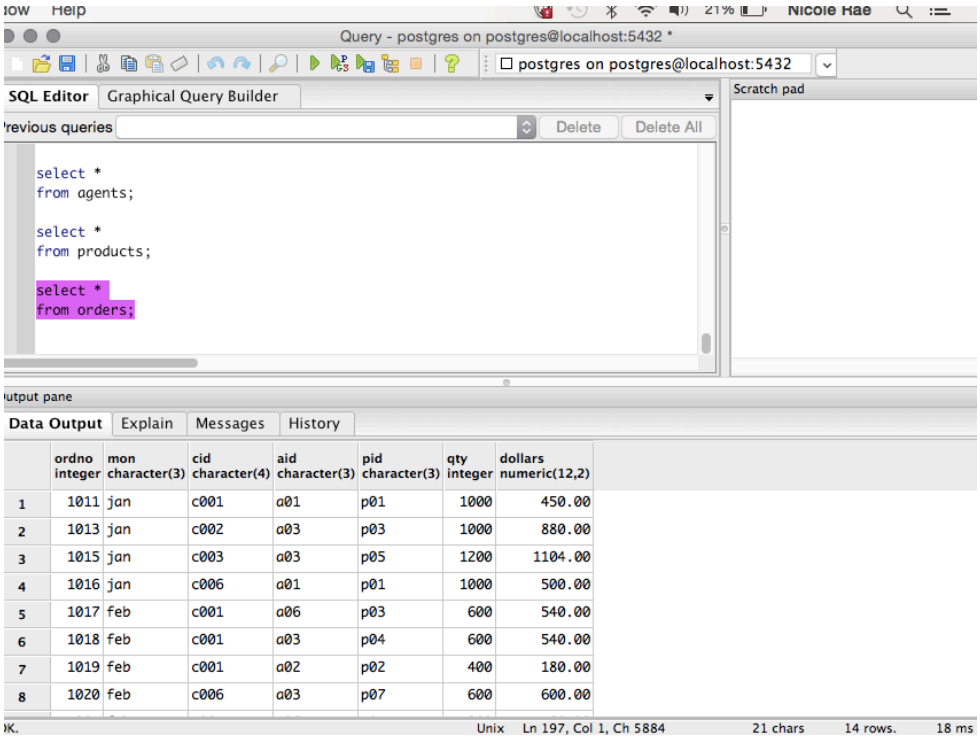
select * from agents;




select * from products;




select * from orders;




2. A super key is any set of columns that uniquely identify every row in the table. The candidate keys are basically the minimal super key. A primary key is a candidate key that you chose to be primary. Typically when there is only one candidate key, it automatically becomes the primary key.

3. There are many instances, especially in the business world today, where information needs to be stored in a clear and concise table. One example, in which you may need to create a table, would be to organize a company's employee's personal information. Not only would you need to have access to their name and contact information, such as phone number or email, you might also need their mailing address for certain newsletters and such things like that. The name of the table could be clear and descriptive, Employee Information. The fields within the table would include headings such as Name, Date of Birth, Home Address, Phone Number, Email, etc. The only field that would be strictly a string date type would be the employee's name. Date of Birth, Phone number would be strictly integer data

types. Fields of Home Address and email would be a mix of both numbers and letters, so that would go under the character data type. Most of the fields would require information to be placed within them, except for one. Due to the purpose of the Home Address field being requested solely for newsletters and extra company opportunity information, it is listed as optional. Therefore, it is possible for this field to be listed as nullable.

4. a) The first normal form refers to the condition that every component of every tuble is an atomic value. Within this rule, there are no multi-valued attributes allowed. The first normal form is an essential property of a relation within a relational database due to it being a minimal requirement for the process of representing a database in terms of relations in standard normal forms.
b) The “access rows by content only” rule refers to the statement, “what, not where”. This purpose of this particular rule simply explains rules with the content of the fields. This rule discusses the use of null values. It does not necessarily equate to a blank or zero; however, it does indicate that the value is missing. It can become dangerous when using the null value, so be careful when entering your data into a table. Therefore, it is “what” you are entering as your data that is important within the rule, not “where”.
c) The “all rows must be unique” rule basically explains itself. If there are duplicate rows that are not distinct, there can be numerous issues that arise when resolving which of the two possible selections is the correct one.