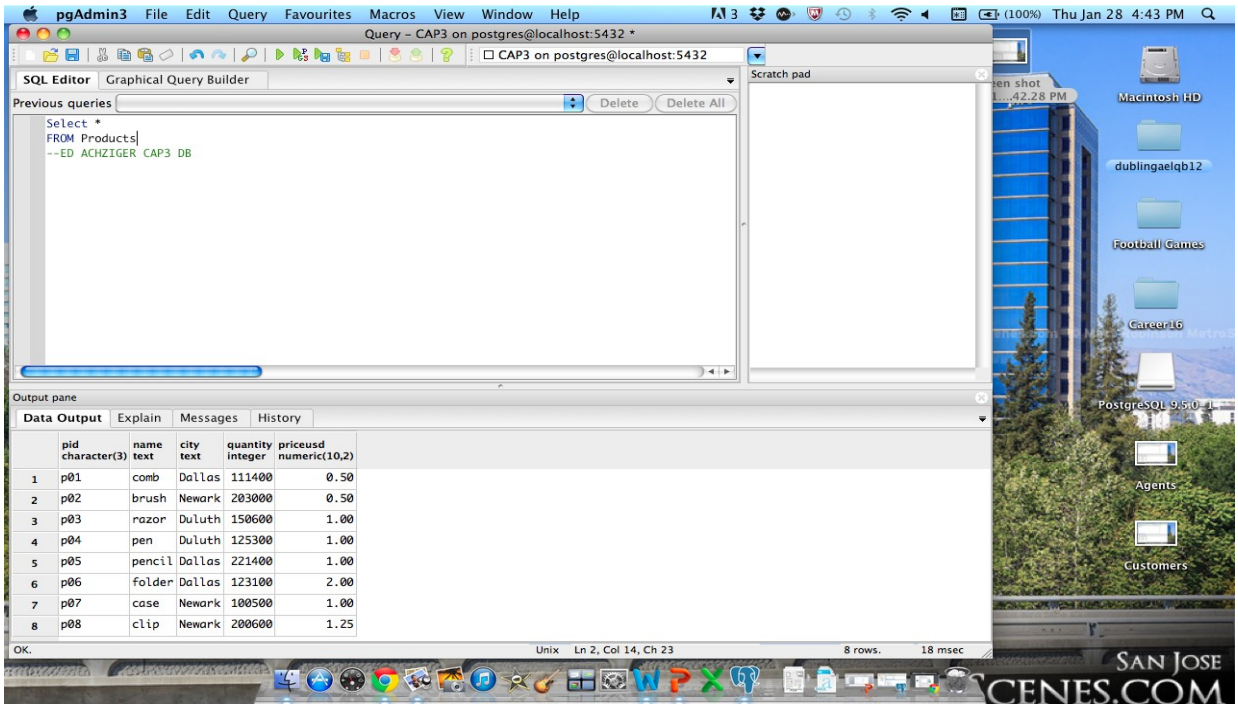
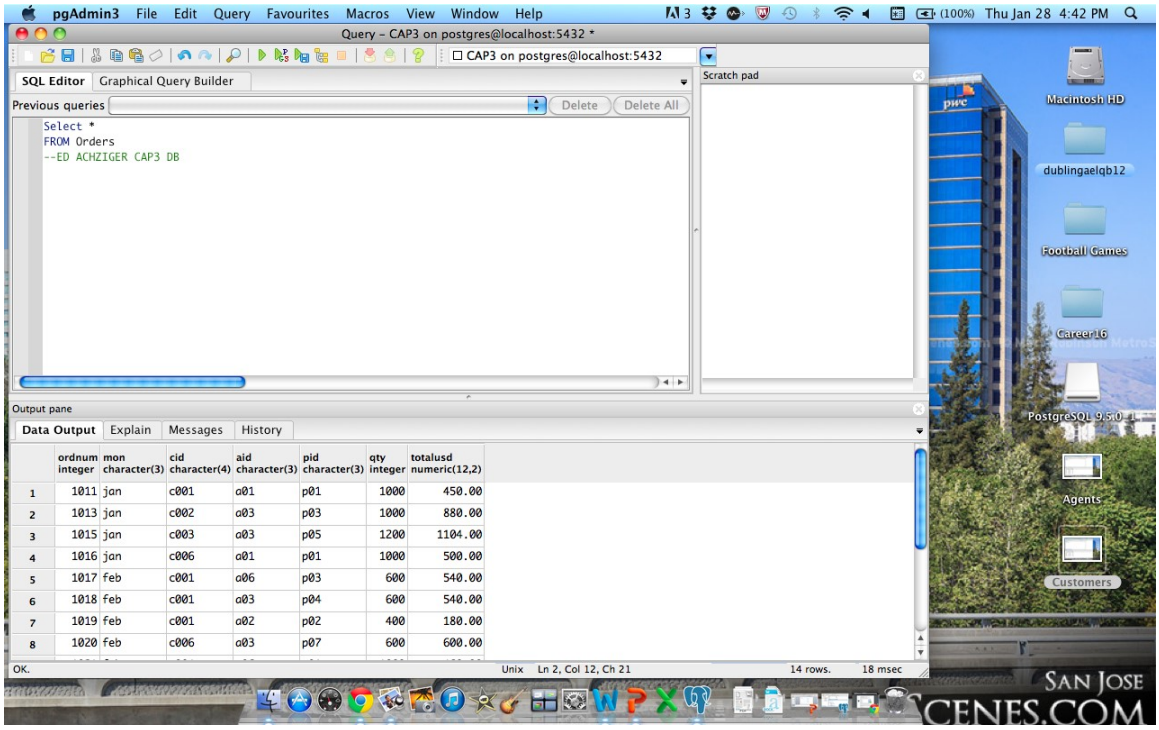
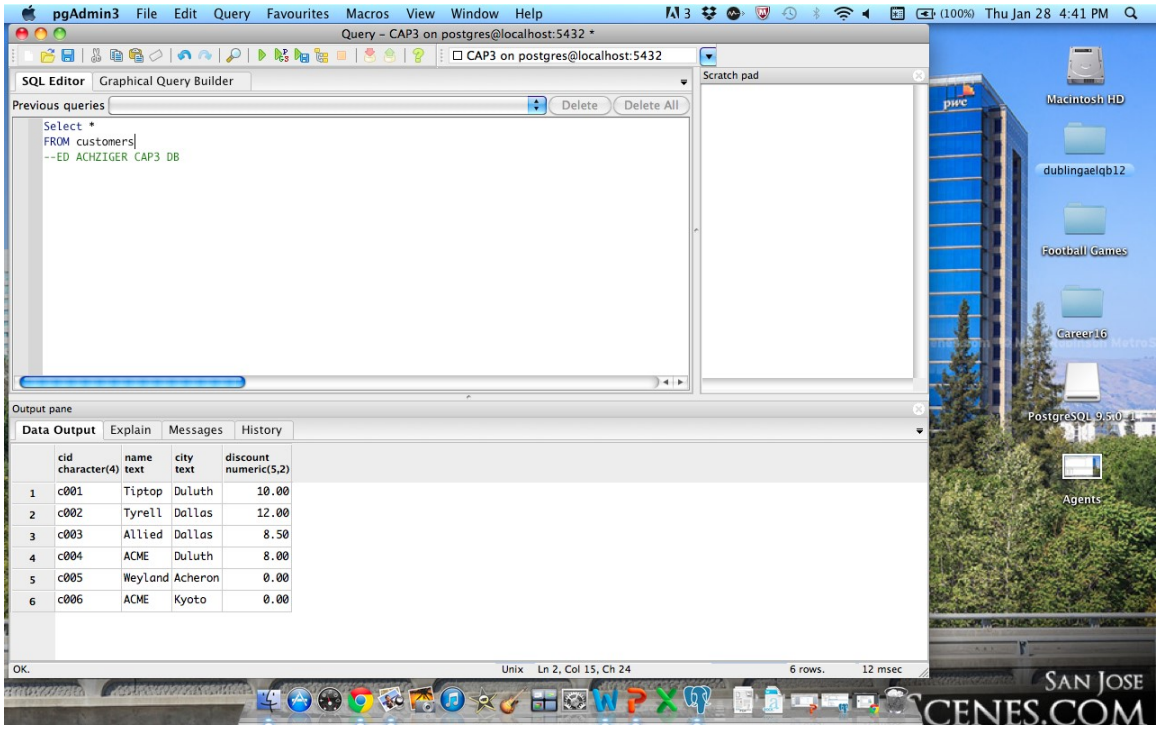
Edward Achziger
Alan's Database Class
CMPT 308
2/2/16

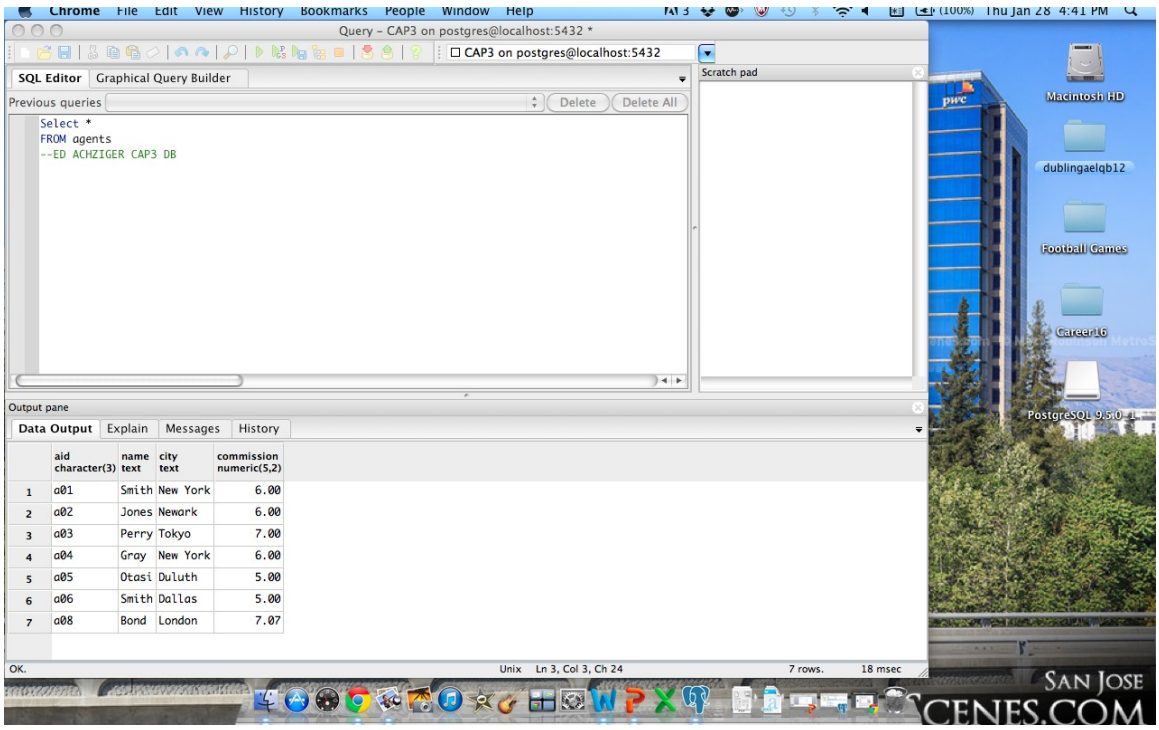
LAB 2

1.






pgAdmin3 File Edit Query Favourites Macros View Window Help
Thu Jan 28 4:41 PM
Query – CAP3 on postgres@localhost:5432 *
CAP3 on postgres@localhost:5432
SQL Editor
Graphical Query Builder
Previous queries
Delete
Delete All
Scratch pad
Select *
FROM customers
--ED ACHZIGER CAP3 DB
Output pane
Data Output
Explain
Messages
History
cid character(4)
name text
city text
discount numeric(5,2)
1 c001 Tiptop Duluth 10.00
2 c002 Tyrell Dallas 12.00
3 c003 Allied Dallas 8.50
4 c004 ACME Duluth 8.00
5 c005 Weyland Acheron 0.00
6 c006 ACME Kyoto 0.00
OK.
Unix Ln 2, Col 15, Ch 24
6 rows.
12 msec
Macintosh HD
dublingaelqb12
Football Games
Career16
PostgreSQL 9.5.0
Agents
SAN JOSE
CENES.COM


Chrome File Edit View History Bookmarks People Window Help
Thu Jan 28 4:41 PM
Query – CAP3 on postgres@localhost:5432 *
CAP3 on postgres@localhost:5432
SQL Editor
Graphical Query Builder
Previous queries
Delete
Delete All
Scratch pad
Select *
FROM agents
--ED ACHZIGER CAP3 DB
Output pane
Data Output
Explain
Messages
History
aid character(3)
name text
city text
commission numeric(5,2)
1 a01 Smith New York 6.00
2 a02 Jones Newark 6.00
3 a03 Perry Tokyo 7.00
4 a04 Gray New York 6.00
5 a05 Otasi Duluth 5.00
6 a06 Smith Dallas 5.00
7 a08 Bond London 7.07
OK.
Unix Ln 3, Col 3, Ch 24
7 rows.
18 msec
Macintosh HD
dublingaelqb12
Football Games
Career16
PostgreSQL 9.5.0
SAN JOSE
CENES.COM

2. When taking about relational database, keys allow use to relate databases to reach other. The first term, superkey, is defined as a field or set of fields that can uniquely identify all of rows in a table. The superkey can be a single key or also a composite key, which is a key of combined columns. The next term is candidate key, which is very similar to a superkey in terms that it identifies all rows in the table; it just does it by the fewest number of columns possible. The last term, primary key, is defined as the candidate key in a table that you deem most important and will use to relate to other tables in the database.

3.

If I had to great a table, I would name it "Best Baseball Hitters of All Time" and use it you see what player was the most efficient baseball hitter in the history of the game. Some of the columns that I would have in the table would be: playerID, name, yearsplayed, batavg, OnBasepct, HR, singles, doubles, triples, strikeouts, and batTitle. For this table I could use a wide range of data types, like text or strings, integers, doubles, and varchars. For the playerID column, I would use a varchar data type and this one would serve as my primary key. For the columns yearsplayed, HR, singles, doubles, triples and strikeouts, I would probably use an integer data type since I would only want whole numbers in these columns. For the columns batavg and OnBasepct, I would use a double data type that would allow for decimals. The name column I would most certainly use a string data type. Lastly, for the batTitle column, I would use an interger most likely yet this one would allow for a nullable return in case the player never won a batting title in their career.

4. When using relational databases there are 3 rules that must be followed. The first rule, "first normal rule" is concerning that all the information should be atomic. This means that at the intersection of every row and column there is atomic data and not more than one data at each intersection. Atomic data is important because if data cannot be uniquely called then there would be no need for a database. The second rule, "access rows by content only" is the rule that protects against a row that is null. An example of this is that we can only access the rows by calling the data that is

associated in that row. If nothing is in the row, or null, it would be impossible for us to call the row because there is no relation to it. Finally, the last rule, “all rows must be unique” helps protect against data duplication. As we learned early in the database course, we want to at all times eliminate data inconsistencies, and if multiple rows are identical to each other, it could provide then some data redundancy and providing data inconsistencies.