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Professor Labouseur
Lab 2
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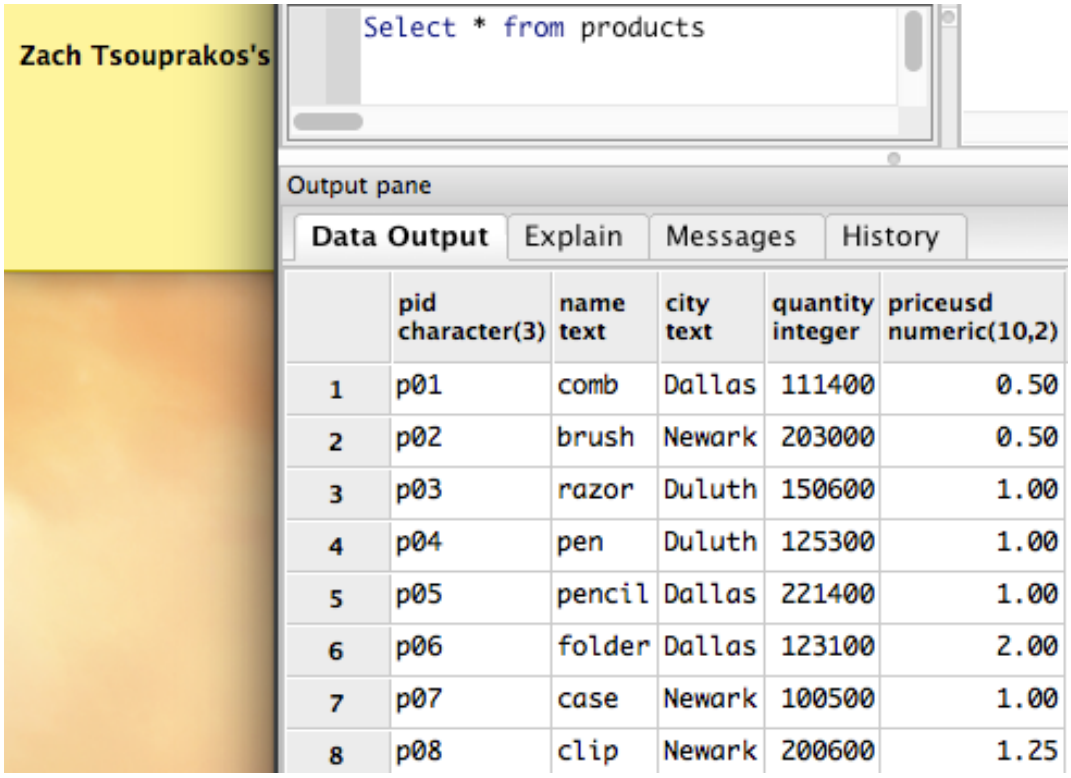
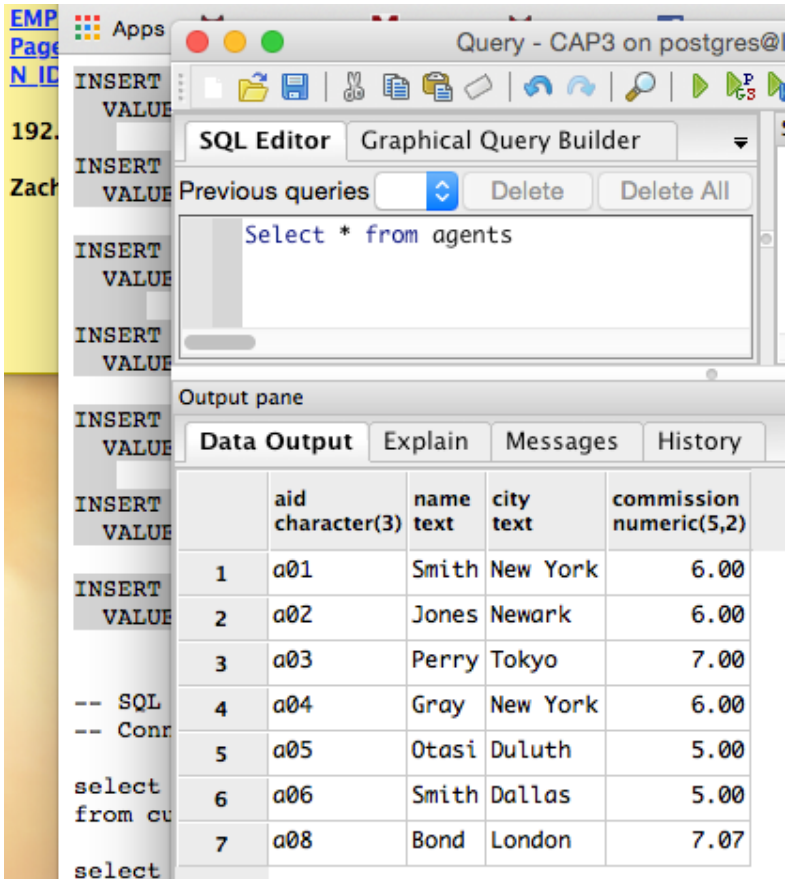
The super key in SQL is any column or row that uniquely identifies every row in a table. The candidate key goes hand in hand with the super key, where it is the super key with the fewest possible number of columns that still uniquely identify each row. The primary key is the candidate key that you choose to be primary; this column must be unique at the row level.

Data types are the types of data (obviously) that are seen inside a database. For example, a data type could be something like an integer (int), or text (string), or even the data or time (datetime). These data types resemble the values that are already in or being inserted into databases. Lets say I have a table called Cars, this table contains columns: year (int), make (text), color (text), and VIN number (VARCHAR(20)). The column VIN number would be the non-nullable primary key, where it is unique. Personally, I qould also have "Make" be a non-nullable column because since it unique to a certain extent (two entries could be Jeep, for example), this column's data is more valuable than "year" and "color".

There are three relational "rules" that are be used when dealing with databases. The very first rule, first normal form states that the intersection of any row and column must be autonomous and this represents the data in this one way. The example we spoke about in class was two super heroes and their multiple powers, it was a problem to have multiple super powers in one column per super hero; it was then decided that there must be multiple columns made for the database to store all of these characteristics while abiding by the first rule. The second rule is to be able to call or reference these rows or columns by name, not numbers. For example in this example we have our superheroes ID numbers and names; to follow this rule, one should be able to reference a row by calling the super heroes. Rule three calls every row being unique, avoiding duplication and not having any blank cells. In this example, one super hero had a third super power while the other one did not, this resulted in an empty cell. To follow rule three, we used associative tables to list the super powers and then correlate them to their specific super hero.



	pid character(3)	name text	city text	quantity integer	priceusd numeric(10,2)
1	p01	comb	Dallas	111400	0.50
2	p02	brush	Newark	203000	0.50
3	p03	razor	Duluth	150600	1.00
4	p04	pen	Duluth	125300	1.00
5	p05	pencil	Dallas	221400	1.00
6	p06	folder	Dallas	123100	2.00
7	p07	case	Newark	100500	1.00
8	p08	clip	Newark	200600	1.25



	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

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Data Output | Explain | Messages | History

	ordnum integer	mon character(3)	cid character(4)	aid character(3)	pid character(3)	integer	numeric(12,2)
1	1011	jan	c001	a01	p01	1000	450.00
2	1013	jan	c002	a03	p03	1000	880.00
3	1015	jan	c003	a03	p05	1200	1104.00
4	1016	jan	c006	a01	p01	1000	500.00
5	1017	feb	c001	a06	p03	600	540.00
6	1018	feb	c001	a03	p04	600	540.00
7	1019	feb	c001	a02	p02	400	180.00
8	1020	feb	c006	a03	p07	600	600.00
9	1021	feb	c004	a06	p01	1000	460.00
10	1022	mar	c001	a05	p06	400	720.00
11	1023	mar	c001	a04	p05	500	450.00
12	1024	mar	c006	a06	p01	800	400.00
13	1025	apr	c001	a05	p07	800	720.00
14	1026	may	c002	a05	p03	800	740.00

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	ordnum integer	mon character(3)	cid character(4)	aid character(3)	pid character(3)	integer	numeric(12,2)
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6	1018	feb	c001	a03	p04	600	540.00
7	1019	feb	c001	a02	p02	400	180.00
8	1020	feb	c006	a03	p07	600	600.00
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