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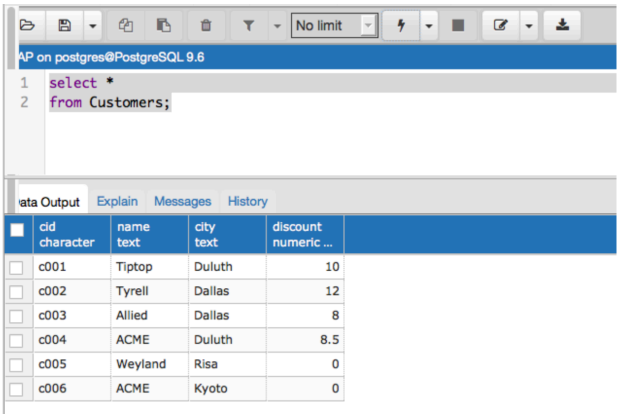
January 31, 2017
Lab 2

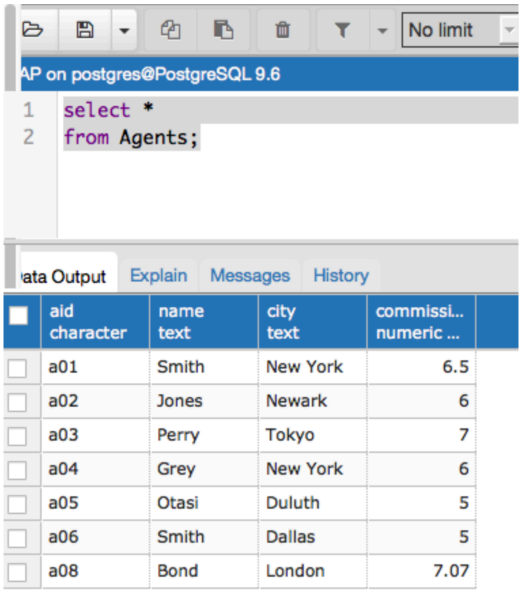
Customers



```
select *
from Customers;
```

cid character	name text	city text	discount numeric ...
c001	Tiptop	Duluth	10
c002	Tyrell	Dallas	12
c003	Allied	Dallas	8
c004	ACME	Duluth	8.5
c005	Weyland	Risa	0
c006	ACME	Kyoto	0

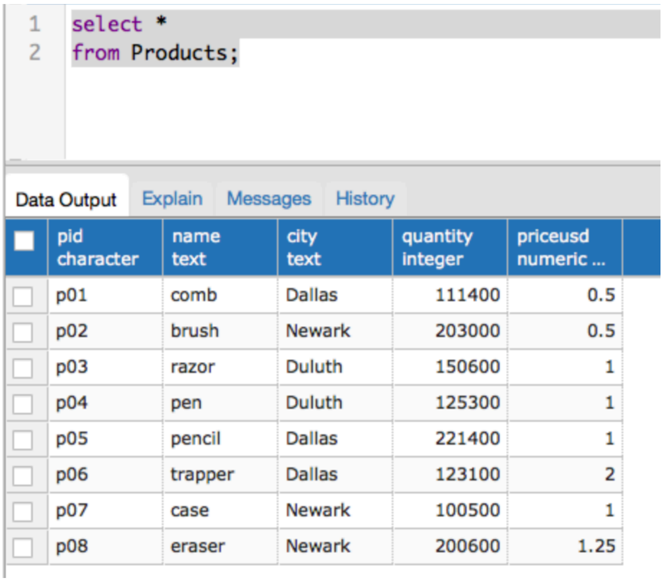
Agents



```
select *
from Agents;
```

aid character	name text	city text	commissi... numeric ...
a01	Smith	New York	6.5
a02	Jones	Newark	6
a03	Perry	Tokyo	7
a04	Grey	New York	6
a05	Otasi	Duluth	5
a06	Smith	Dallas	5
a08	Bond	London	7.07

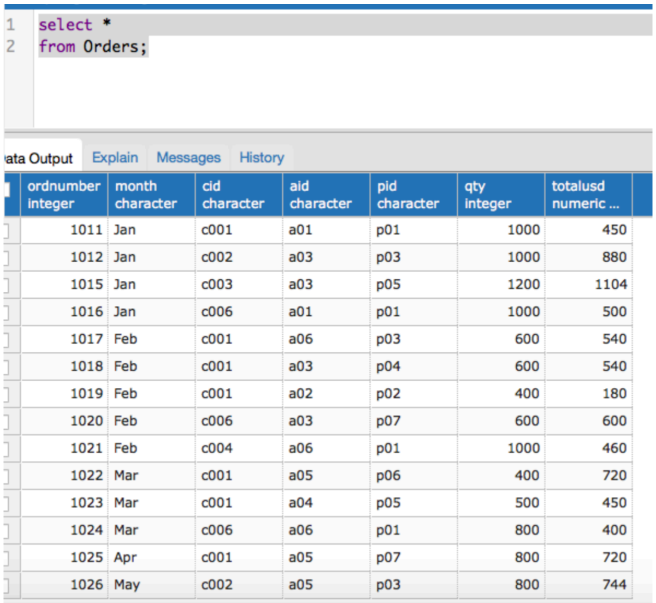
Products



```
select *
from Products;
```

pid character	name text	city text	quantity integer	priceusd numeric ...
p01	comb	Dallas	111400	0.5
p02	brush	Newark	203000	0.5
p03	razor	Duluth	150600	1
p04	pen	Duluth	125300	1
p05	pencil	Dallas	221400	1
p06	trapper	Dallas	123100	2
p07	case	Newark	100500	1
p08	eraser	Newark	200600	1.25

Orders



```
select *
from Orders;
```

ordnumber integer	month character	cid character	aid character	pid character	qty integer	totalusd numeric ...
1011	Jan	c001	a01	p01	1000	450
1012	Jan	c002	a03	p03	1000	880
1015	Jan	c003	a03	p05	1200	1104
1016	Jan	c006	a01	p01	1000	500
1017	Feb	c001	a06	p03	600	540
1018	Feb	c001	a03	p04	600	540
1019	Feb	c001	a02	p02	400	180
1020	Feb	c006	a03	p07	600	600
1021	Feb	c004	a06	p01	1000	460
1022	Mar	c001	a05	p06	400	720
1023	Mar	c001	a04	p05	500	450
1024	Mar	c006	a06	p01	800	400
1025	Apr	c001	a05	p07	800	720
1026	May	c002	a05	p03	800	744

2. A primary key is a column in the table that is used to identify a unique record in that table. It is used to sort and organize a table so each record can be found easily. Superkeys and candidate keys are similar to primary keys in which they help identify certain information by using uniqueness but superkeys can be 1 column or a column set containing multiple columns. Candidate keys are superkeys but a candidate key is the the superkey with the least requirements to be a superkey. For example, a superkey could be 4 columns or 2 columns. The candidate key would be the 2 column superkey because it is the minimal one.

3. Data types are the classes of input that a developer calls when making fields for input. For example, making a field an INT value means only integer values can be input there. Another example is making a field BOOLEAN, means only a true or false output can be determined by that field. If we were to make a table for Weather in popular cities there would be many different data types used. The table name would be Weather. Columns in the table would be: City Name, Zip Code, Temperature, Weather Condition. For City Name and Weather Condition it would be a CHAR because cities and weather conditions only contain letter values. For zip code it would be an INT data type because it can only be 5 numbers. Lastly, for temperature it would be a VARCHAR data type because it contains a number for temperature but also either F or C to declare which system it is being measure in.

4.
1NF: There is a table that holds data. This table needs to have a primary and each column must be unique. Also, the columns must contain atomic values and there are no reputation in the groups of colums.
Access Rows by Content Only: This is referring to you can’t say “It’s the 4th row down from the top” You can only reference rows by an ID to make sure the information being referenced is clear and concise.
All rows must be unique: Every row must be unique to make a table functional and logical. If there are 2 rows with everything the same it’s a duplicate and can make things very complicated. There are cases where there is information in rows that are the same but usually the ID that reference that row are different making it unique.