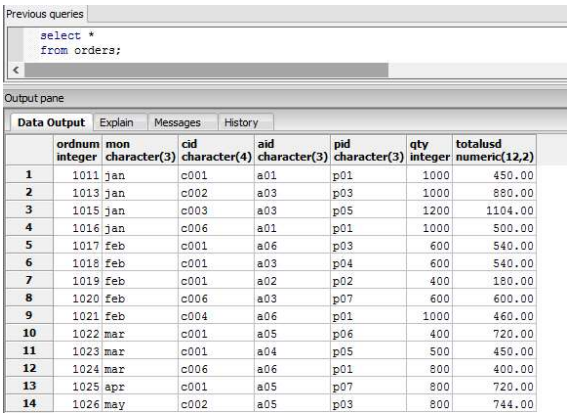
Thomas Famularo 9/14/2016

Lab 2 – CAP database

1.

Orders:



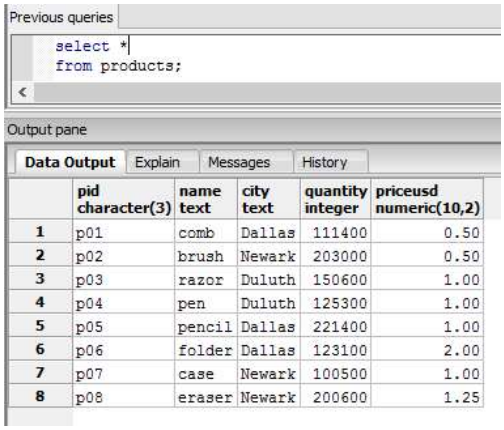
```
select *
from orders;
```

Output pane

Data Output | Explain | Messages | History

	ordnum integer	mon character(3)	cid character(4)	aid character(3)	pid character(3)	qty integer	totalusd 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	744.00

Products:



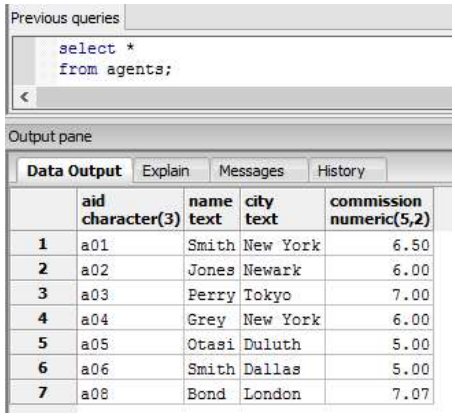
```
select *
from products;
```

Output pane

Data Output | Explain | Messages | History

	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	eraser	Newark	200600	1.25

Agents:



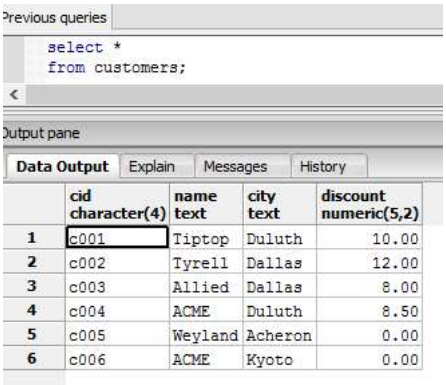
```
select *
from agents;
```

Output pane

Data Output | Explain | Messages | History

	aid character(3)	name text	city text	commission numeric(5,2)
1	a01	Smith	New York	6.50
2	a02	Jones	Newark	6.00
3	a03	Perry	Tokyo	7.00
4	a04	Grey	New York	6.00
5	a05	Otasi	Duluth	5.00
6	a06	Smith	Dallas	5.00
7	a08	Bond	London	7.07

Customers:



```
select *
from customers;
```

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	8.00
4	c004	ACME	Duluth	8.50
5	c005	Weyland	Acheron	0.00
6	c006	ACME	Kyoto	0.00

2. Explain the distinctions among the terms primary key, candidate key, and superkey.

- A superkey is any combination of attributes that values together identify a specific entity. When combined they uniquely identify one entity.
- A candidate key is an optimized superkey, if any attribute is removed from a candidate key it is no longer a superkey.
- The primary key Is limited to finding data in only one table not the whole database like the other two keys.

3. A table that might be created is one that stores all of the poker hands possible and ranks them based on strength. The name of this table would be “Poker Hands”, the names of each of the columns will be “card1value, card2value, card3value, card4value, card5value, card1suit, card2suit, card3suit, card4suit, card5suit, ranking”. Card1-5value would have the data field of type char with the length of one. Card1-5suit would have the data field of type text. Ranking would have the data field of type Int. None of these data fields should have the value of null.

4.

a. The first normal rule is that all fields are atomic, this means that every piece of data can be found with a table name a row number and column number, no other identifiers. This keeps data easily identifiable.

b. The “access rows by content only” rule is important because data may change, the data on row 3 on Friday may not be the same on Monday.

c. The “all rows must be unique” rule is important because it keep the duplication of data low and the accuracy of data high. This will result in more accurate information when using the database.