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Course: CMTP 308N Database Systems

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September 10, 2017

LAB # 2 CAP database

A. The **Primary key** must contain a unique identifies in each record in a table, must contain unique values and have no null values, a table in a database must only have one primary key with single or multiple fields.
B. The **Candidate key** must qualify as a unique key in a database. In addition, you can also have multiple candidate key in one table and can qualify as a primary key.
C. The **Superkey** must contain a combination of columns and must be identify as row within a database with no duplicate rows.

My table

Data types or essential for database. Without data type, one cannot define the attributes in a column of a table because each column is meant to hold a specific data types such as, numbers, text, date, time, and many more. For example, the following table I create below is shows over my summer:

```
CREATE TABLE Shows (
Mid             char(6) not null,
Name            text,
location        char(8) not null,
Town            Text,
zipcode         int,
primary key(Mid)
);

INSERT INTO shows  (Mid, Name, location, Town, zipcode )
  VALUES('m00001', 'The 100', 'Home', 'Poughkeepsie', 12603);

INSERT INTO shows  (Mid, Name, location, Town, zipcode )
```

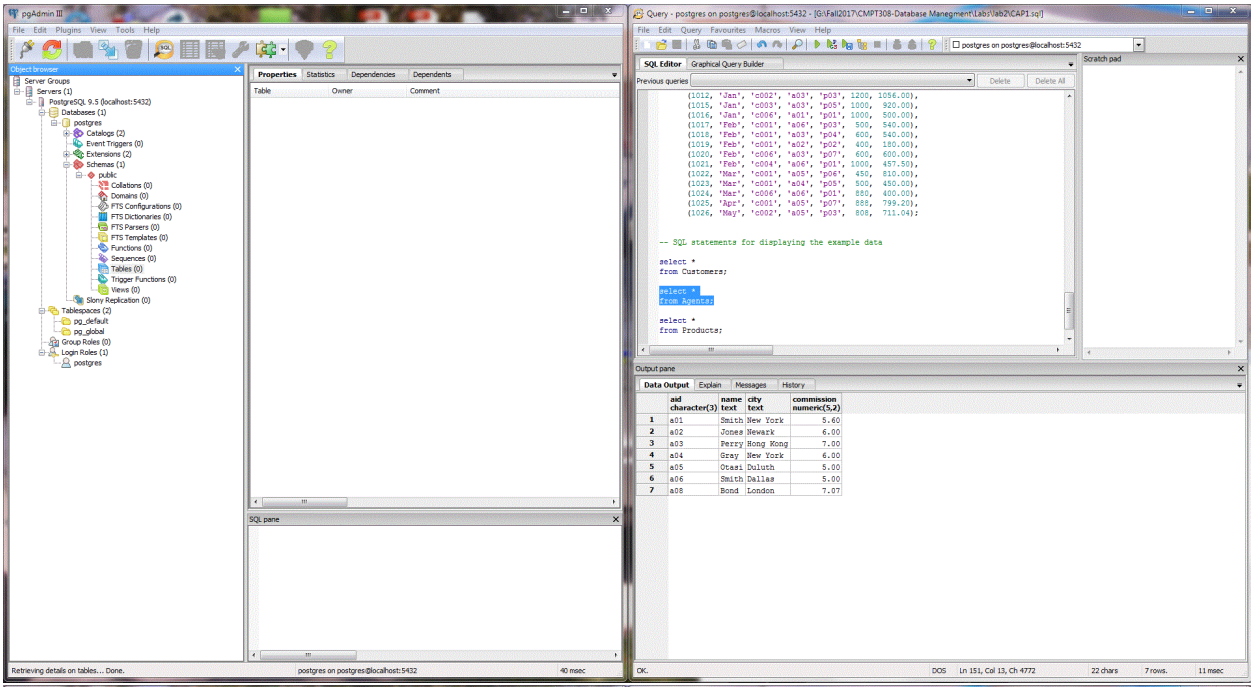
```
  VALUES('m00002', 'The badland', 'Home', 'Poughkeepsie', 12603);

INSERT INTO shows  (Mid, Name, location, Town, zipcode )
  VALUES('m00003', 'Game of thrones', 'Work', 'Millerton', 12603);

INSERT INTO shows  (Mid, Name, location, Town, zipcode )
  VALUES('m00004', 'College Friends', 'Home', 'Millerton', 12603);
```

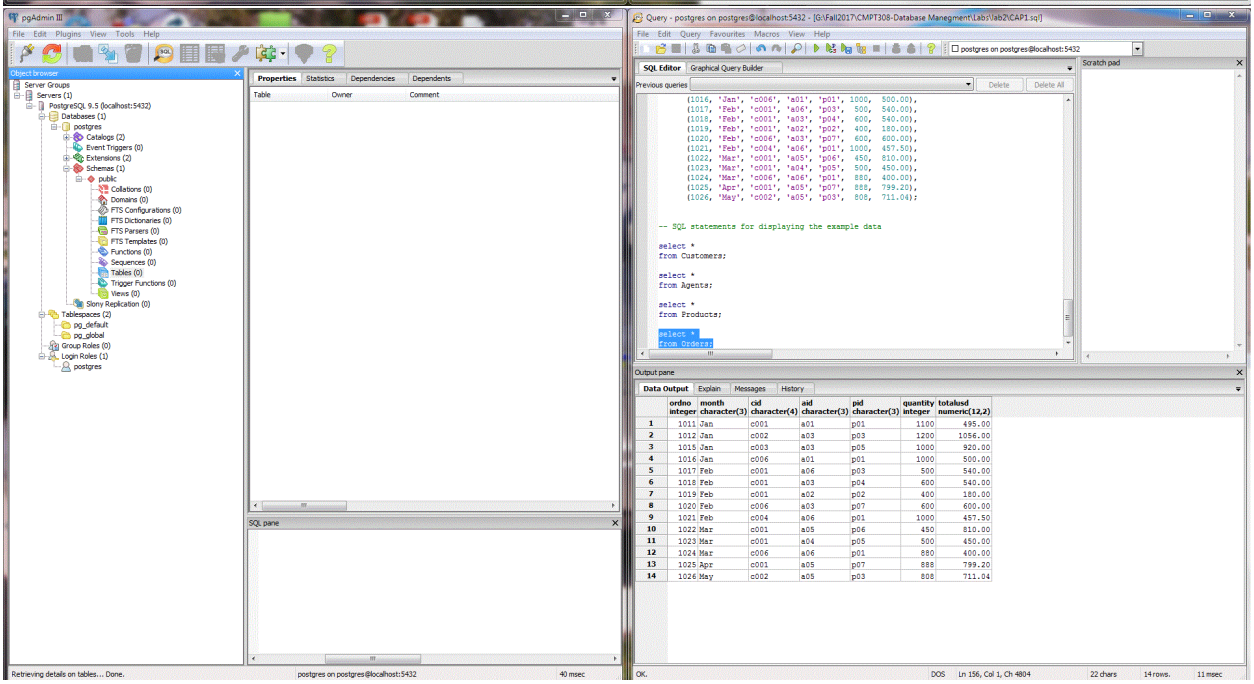
Output pane

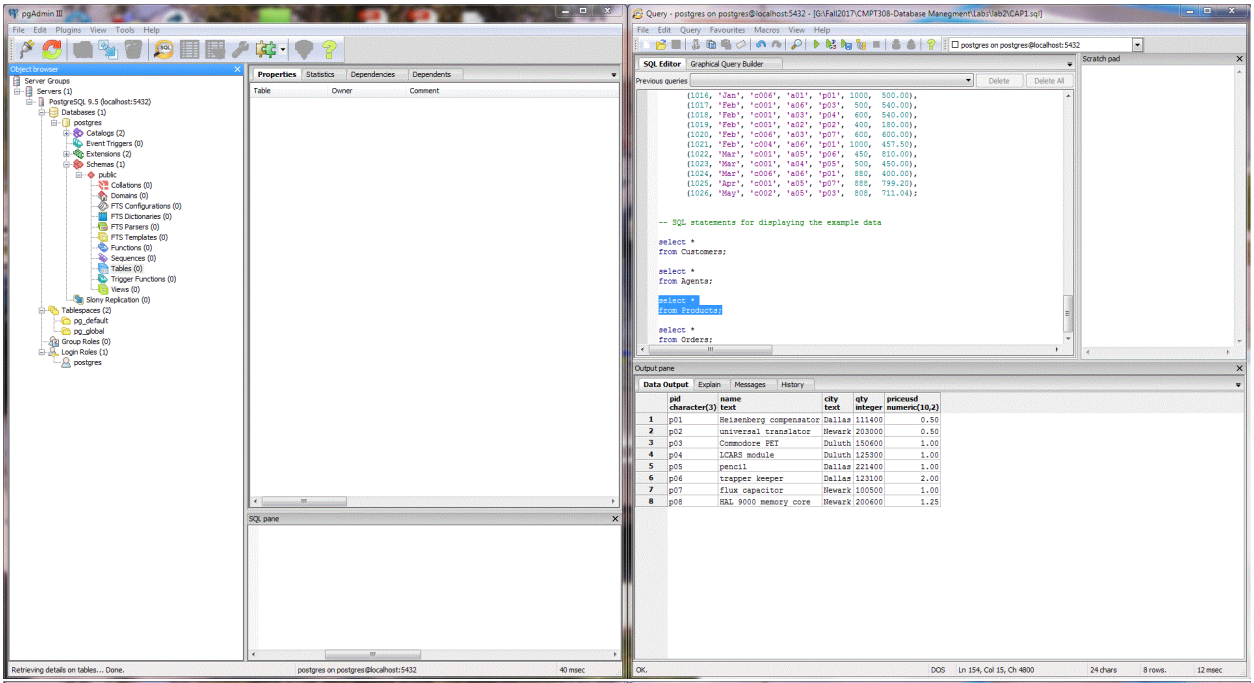
Data Output | Explain | Messages | History

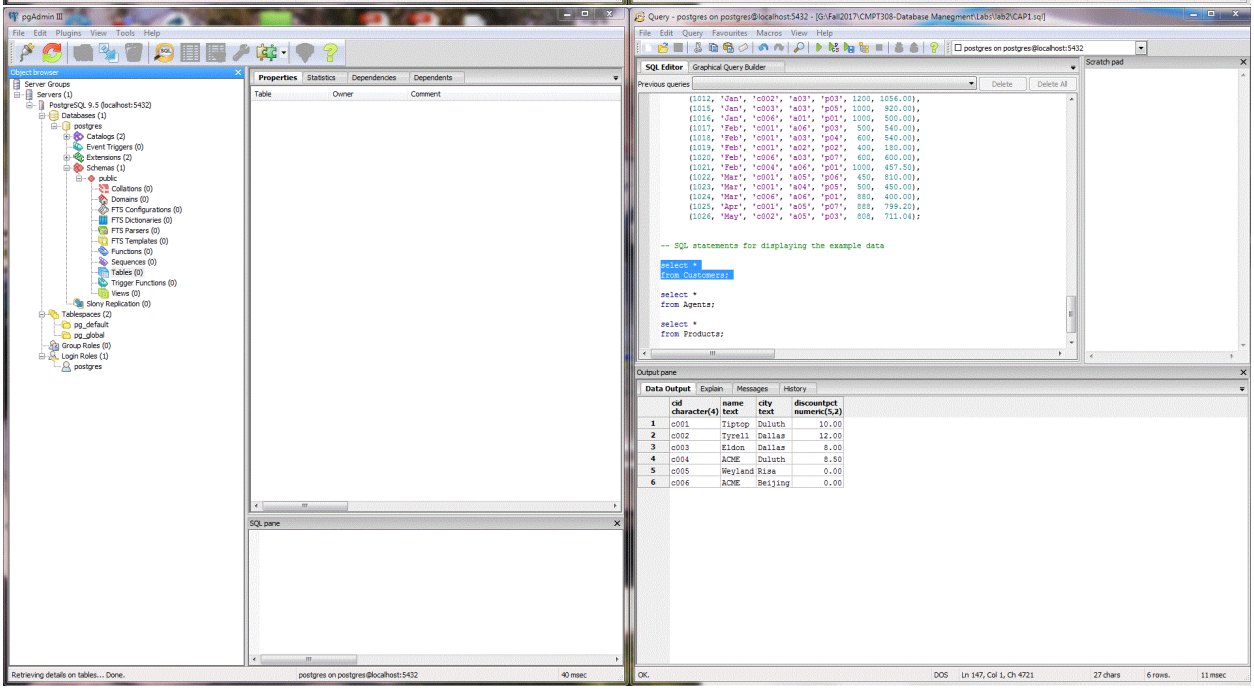
	mid character(6)	name text	location character(8)	town text	zipcode integer
1	m00001	The 100	home	Poughkeepsie	12603
2	m00002	The badland	home	Poughkeepsie	12603
3	m00003	Game of thrones	work	millerton	12603
4	m00004	College Friends	home	millerton	12603

In my table, I include a primary key with a (char) data type that accepts character strings and fix length. I also include name field with a text data type that only accept strings and a zip code field with the (int) data type that accepts integers. Mid and location field also have NOT NULL meaning that the column cannot have a value. Furthermore, my table also illustrate the following relationship rule: the first normal form, access row by content, and all row must be unique.


pgAdmin III
Query - postgres on postgres@localhost:5432 - [G:\Fall2017\CMPT308-Database Managment\Labs\lab2\CAP1.sql]
Output pane
Data Output
Explain
Messages
History


pgAdmin III
Query - postgres on postgres@localhost:5432 - [G:\Fall2017\CMPT308-Database Managment\Labs\lab2\CAP1.sql]
Output pane
Data Output
Explain
Messages
History


pgAdmin III
Query - postgres on postgres@localhost:5432 - [G:\Fall2017\CMPT308-Database Managment\Labs\lab2\CAP1.sql]
Object browser
Server Groups
Servers (1)
PostgreSQL 9.5 (localhost:5432)
Databases (1)
postgres
Catalogs (2)
Event Triggers (0)
Extensions (2)
Schemas (1)
public
Collations (0)
Domains (0)
FTS Configurations (0)
FTS Dictionaries (0)
FTS Parsers (0)
FTS Templates (0)
Functions (0)
Sequences (0)
Tables (0)
Trigger Functions (0)
Views (0)
Slony Replication (0)
Tablespaces (2)
pg_default
pg_global
Group Roles (0)
Login Roles (1)
postgres
Properties
Statistics
Dependencies
Dependents
Table
Owner
Comment
SQL pane
SQL Editor
Graphical Query Builder
Previous queries
Delete
Delete All
Scratch pad
(1016, 'Jan', 'c006', 'a01', 'p01', 1000, 500.00),
(1017, 'Feb', 'c001', 'a06', 'p03', 500, 540.00),
(1018, 'Feb', 'c001', 'a03', 'p04', 600, 540.00),
(1019, 'Feb', 'c001', 'a02', 'p02', 400, 180.00),
(1020, 'Feb', 'c004', 'a03', 'p07', 600, 600.00),
(1021, 'Feb', 'c004', 'a06', 'p01', 1000, 457.50),
(1022, 'Mar', 'c001', 'a05', 'p06', 450, 810.00),
(1023, 'Mar', 'c001', 'a04', 'p05', 500, 450.00),
(1024, 'Mar', 'c006', 'a06', 'p01', 880, 400.00),
(1025, 'Apr', 'c001', 'a05', 'p07', 888, 799.20),
(1026, 'May', 'c002', 'a05', 'p03', 808, 711.04);
-- SQL statements for displaying the example data
select *
from Customers;
select *
from Agents;
select *
from Products;
select *
from Orders;
Output pane
Data Output
Explain
Messages
History
pid character(3)
name text
city text
qty integer
pricusd numeric(10,2)
1 p01 Heisenberg compensator Dallas 111400 0.50
2 p02 universal translator Newark 203000 0.50
3 p03 Commodore PET Duluth 150600 1.00
4 p04 LCR3 module Duluth 125300 1.00
5 p05 pencil Dallas 221400 1.00
6 p06 trapper keeper Dallas 123100 2.00
7 p07 flux capacitor Newark 100500 1.00
8 p08 HAL 9000 memory core Newark 200600 1.25
Retrieving details on tables... Done.
postgres on postgres@localhost:5432
40 msec
OK.
DOS
Ln 154, Col 15, Ch 4800
24 chars
8 rows.
12 msec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Event Triggers (0)
Extensions (2)
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FTS Parsers (0)
FTS Templates (0)
Functions (0)
Sequences (0)
Tables (0)
Trigger Functions (0)
Views (0)
Slony Replication (0)
Tablespaces (2)
pg_default
pg_global
Group Roles (0)
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postgres
Properties
Statistics
Dependencies
Dependents
Table
Owner
Comment
SQL pane
SQL Editor
Graphical Query Builder
Previous queries
Delete
Delete All
Scratch pad
(1012, 'Jan', 'c002', 'a03', 'p03', 1200, 1056.00),
(1015, 'Jan', 'c003', 'a03', 'p05', 1000, 920.00),
(1016, 'Jan', 'c006', 'a01', 'p01', 1000, 500.00),
(1017, 'Feb', 'c001', 'a06', 'p03', 500, 540.00),
(1018, 'Feb', 'c001', 'a03', 'p04', 600, 540.00),
(1019, 'Feb', 'c001', 'a02', 'p02', 400, 180.00),
(1020, 'Feb', 'c004', 'a03', 'p07', 600, 600.00),
(1021, 'Feb', 'c004', 'a06', 'p01', 1000, 457.50),
(1022, 'Mar', 'c001', 'a05', 'p06', 450, 810.00),
(1023, 'Mar', 'c001', 'a04', 'p05', 500, 450.00),
(1024, 'Mar', 'c006', 'a06', 'p01', 880, 400.00),
(1025, 'Apr', 'c001', 'a05', 'p07', 888, 799.20),
(1026, 'May', 'c002', 'a05', 'p03', 808, 711.04);
-- SQL statements for displaying the example data
select *
from Customers;
select *
from Agents;
select *
from Products;
Output pane
Data Output
Explain
Messages
History
cid character(4)
name text
city text
discountpct numeric(5,2)
1 c001 Tiptop Duluth 10.00
2 c002 Tyrell Dallas 12.00
3 c003 Eldon Dallas 8.00
4 c004 ACME Duluth 8.50
5 c005 Weyland Risa 0.00
6 c006 ACME Beijing 0.00
Retrieving details on tables... Done.
postgres on postgres@localhost:5432
40 msec
OK.
DOS
Ln 147, Col 1, Ch 4721
27 chars
6 rows.
11 msec