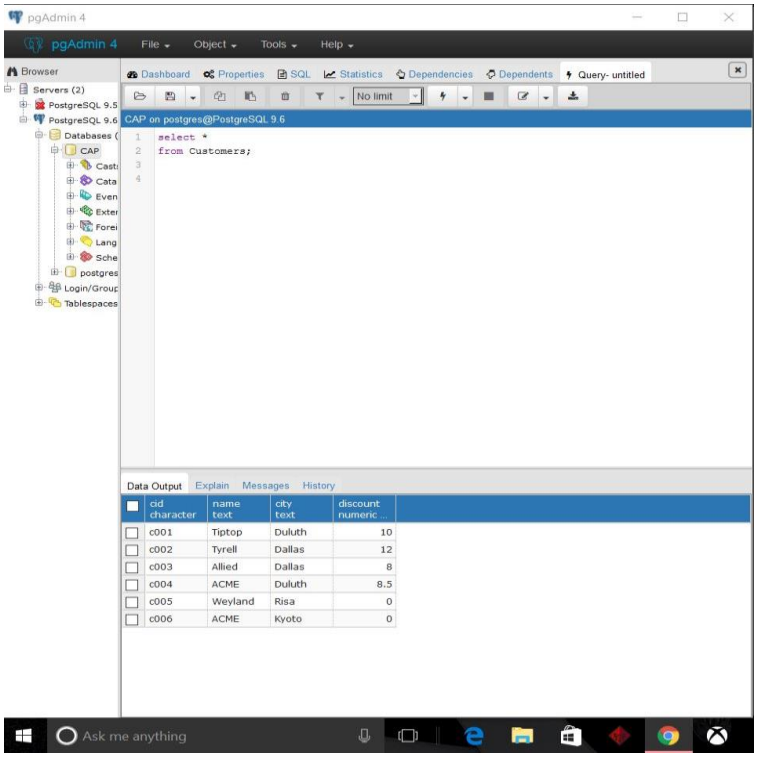
James Tietz 1/28/2017

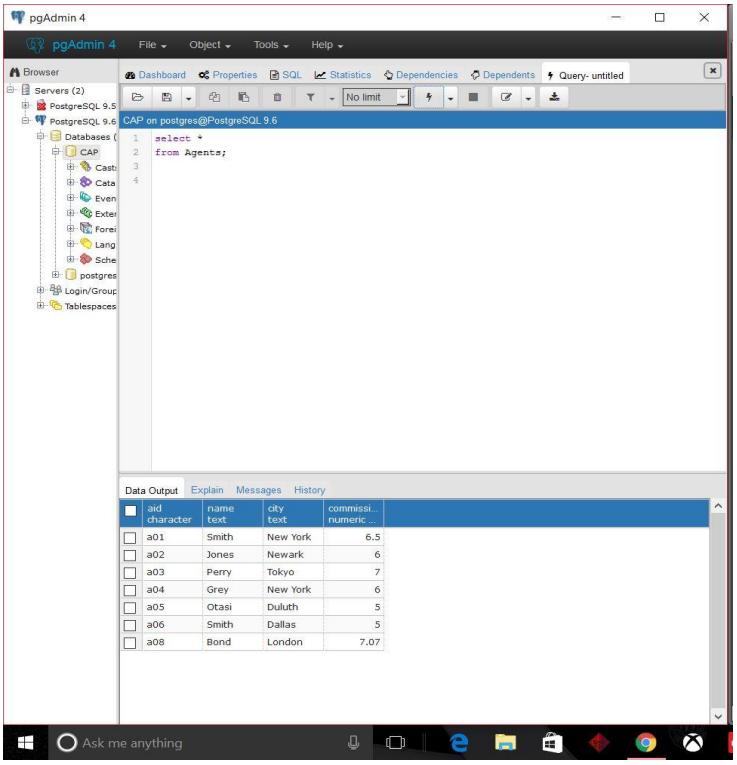
Lab 2: CAP database

1. pgAdmin Screenshots

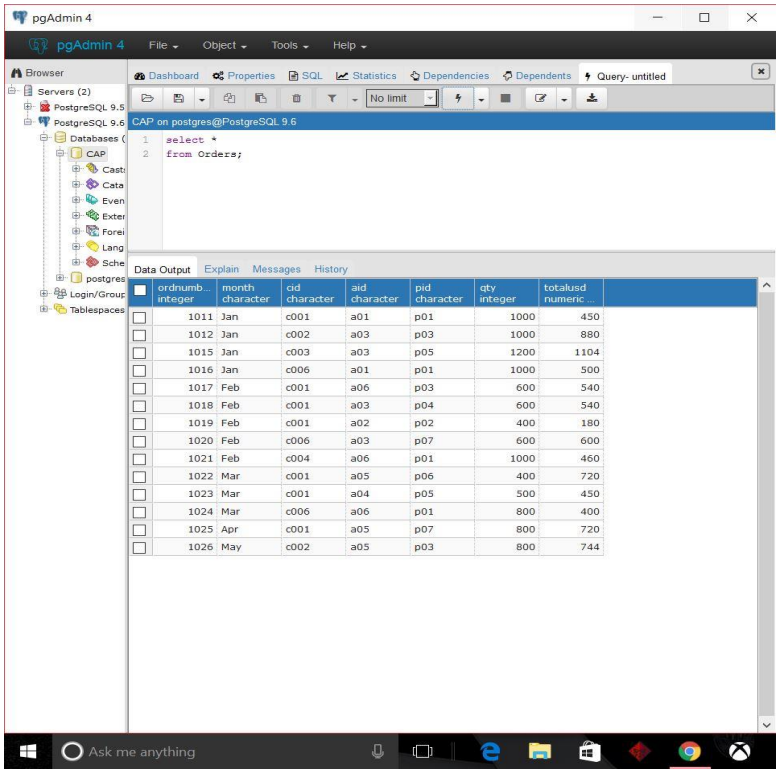
Customers



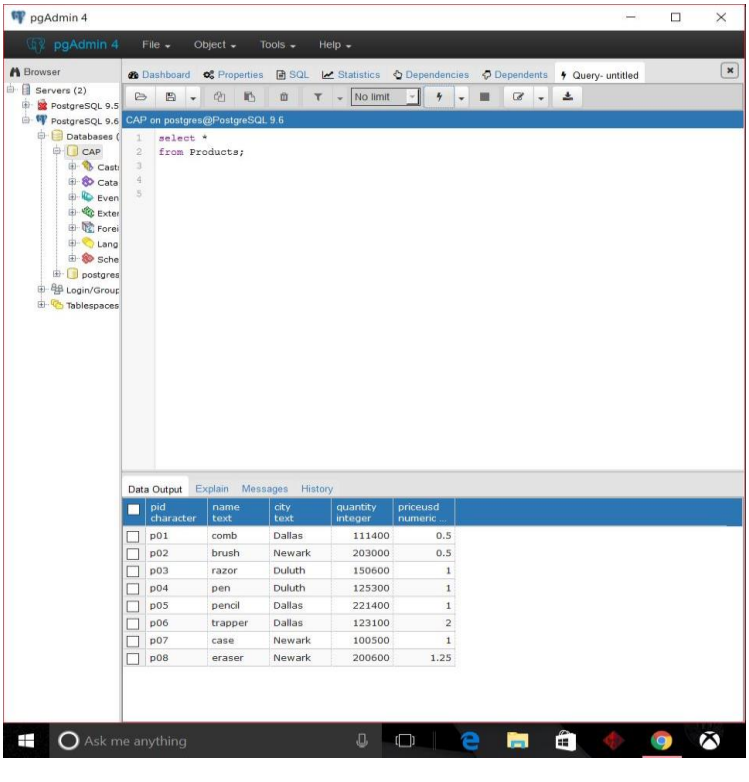
Agents



Orders



Products



2. A primary key is what uniquely defines an entity occurrence. For example, my Marist ID is what uniquely defines me in the college's records. A super key is a combination of columns that uniquely defines any row within a relational database management table. A candidate key is similar to a super key, yet is reduced to the minimum number of columns to be able to identify each row.
3. A data type is an entity that places a specific type of data and places it in the objective, such as an integer data, character data, date data, time data, strings data, boolean data, etc. These types of data are used to determine how each field is represented. For example if someone tries to insert an integer into an alphabet column, it would not allow. Data types are crucial for maintain a clean database.

1	**Field**	**Type**	**Null**
2	player number	int	No
3	character	varchar	No
4	currency (gold coins)	int	No
5	kart size (cc)	int	No

Mario Kart database

4. A) A database conforms to the 1NF if it contains only atomic values and there are no repeating groups. An atomic value is a value that cannot be divided. It must contain data that has no structure.
   B) The 2NF rule "Access rows by content only" disallows pointers to rows, such as second row over or fifth row from the bottom. Most relational products break this rule by allowing users to get to rows ID.
   C) The 3NF rule "Rows must be unique" explains that two ordered lists of elements cannot be identical. A relation is an unordered set of tuples. But some tables where this is a good thing, such as temperature readings.