Jason Hipolito

2. A primary key is keyword in a relational database that is uniqe for each record. A candidate key is a column, or set of columns, in a table that can uniquely identify any record without referring to any other data. A superkey is a set of attributes within a table whose values can be used to uniquely identify a row.

3. my topic for this table is Runescape. It's a massive multiplay online roleplaying game in a medive setting with a butch of skills to level and items to use. I will create a table called items.

Item Id	Item Name	Equitable	Level Required	Consumable
01	Rope	No	NULL	No
02	Rune PLatebody	Yes	40	No
03	Archers' Ring	Yes	NULL	No
04	Grimy Snapdragon	No	NULL	No
05	Strength Potion	No	NULL	Yes

Item Id, Name, consumable, and Equitable are all not nullable, but Level required is nullable because all items don't require any level to use the item.

4. a) First normal form make sure that there are no repeating groups in individual tables, creates a separate table for each set of data, and identifys each set of related data with a primary key. This is important because In this form it will stop any redundant data which can cause issues wen trying to retive the data, expecually if the data has been changed in one table but not another. Having the tables in first normal form will get rid of the chance of having that happen.

b) This Is important because by using only content to refer to a row will make sure that the user gets exactly what they are looking for. If you say I need the second row from the top it could have change depending on how the data is ordanized or if it was moved or removed from the table.

c) "all rows must be unique" is also a very important rule because if you have identical rows that means you have redundant data and your tables are not in first normal form. Not only that but whrn someone ties to retrive that data it can cause issues when working with that data.

Top screenshot

pgAdmin 4 — File · Object · Tools · Help

Browser
- Servers (1)
  - PostgreSQL 9.6
    - Databases (1)
      - postgres
        - Casts
        - Catalogs
        - Event Triggers
        - Extensions
        - Foreign Data Wrappers
        - Languages
        - Schemas (1)
          - public
            - Collations
            - Domains
            - FTS Configurations
            - FTS Dictionaries
            - FTS Parsers
            - FTS Templates
            - Foreign Tables
            - Functions
            - Materialized Views
            - Sequences
            - Tables
            - Trigger Functions
            - Types
            - Views
    - Login/Group Roles
    - Tablespaces

postgres on postgres@PostgreSQL 9.6

```
1  select *
2  from Agents;
```

Data Output | Explain | Messages | History

aid character (3)	name text	city text	commission numeric (5,2)
1	a01	Smith	Ne...	5.60
2	a02	Jon...	Ne...	6.00
3	a03	Perry	Ho...	7.00
4	a04	Gray	Ne...	6.00
5	a05	Otasi	Dul...	5.00
6	a06	Smith	Dall...	5.00
7	a08	Bond	Lon...	7.07

✓ Successfully run. Total query runtime: 143 msec. 7 rows affected.

Database Systems
CMPT 308

– Lab 2: CAP database - 20 points

Goals
- More practice getting around in the PostgreSQL and pgAdmin3 environments
- Familiarize yourself with the CAP database data.
- Get more easy lab points.

Instructions
Create our beloved CAP database in PostgreSQL. Use the script at
http://www.labouseur.com/courses/db/cap.txt.

1. Execute the following queries (one at a time) from pgAdmin's SQL Tool:

```
select *
from Customers;

select *
from Agents;

select *
from Products;

select *
from Orders;
```

Take a screen shot of each query and its results. Compare those to the data in the
snapshot at http://www.labouseur.com/courses/db/cap.pdf.

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

3. Write a short essay on data types. Select a topic for which you might create a t
Name the table and list its fields (columns). For each field, give its data type and
or not it is nullable.

4. Explain the following relational "rules" with examples and reasons why they a
important.
   a. The "first normal form" rule
   b. The "access rows by content only" rule
   c. The "all rows must be unique" rule

Resources
- Chapter 6.1 in our text
- pgAdminIII documentation - http://www.pgadmin.org/docs/
- pgAdmin tag at Stack Overflow - http://stackoverflow.com/questions/tagged
- SQL tag at Stack Overflow - http://stackoverflow.com/questions/tagged/sql

Submitting
Make a PDF document and push your work to your GitHub repository before du

Bottom screenshot

pgAdmin 4 — File · Object · Tools · Help

postgres on postgres@PostgreSQL 9.6

```
1  select *
2  from Products;
```

Data Output | Explain | Messages | History

pid character (3)	name text	city text	qty integer	priceusd numeric (10,2)
1	p01	Hei...	Dall...	111400	0.50
2	p02	uni...	Ne...	203000	0.50
3	p03	Co...	Dul...	150600	1.00
4	p04	LCA...	Dall...	125300	1.00
5	p05	pen...	Dall...	221400	1.00
6	p06	tra...	Dall...	123100	2.00
7	p07	flux...	Ne...	100500	1.00
8	p08	HAL...	Ne...	200600	1.25

✓ Successfully run. Total query runtime: 109 msec. 8 rows affected.

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CMPT 308

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