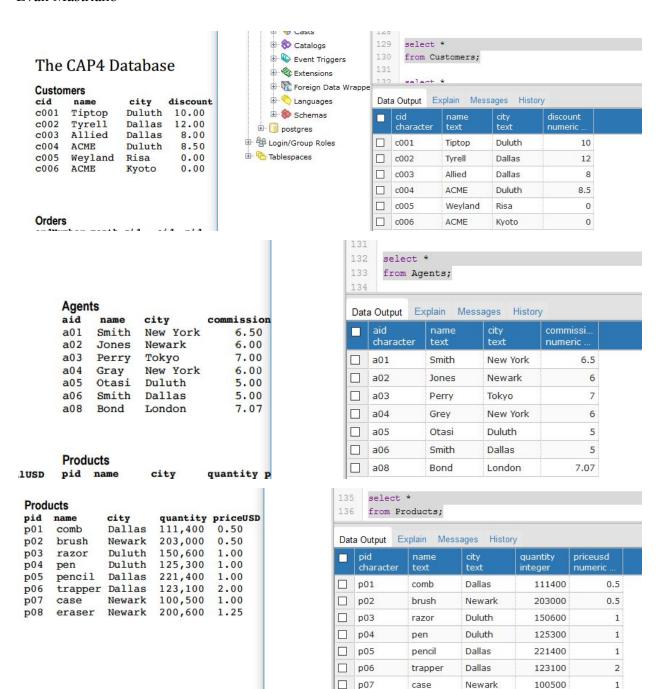
Evan Mastriano



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| 015 | Jan Jan | c003 | a03 | p05 p01 | 1200 | 1104.00 500.00 540.00 | | ordnumb integer | month character | cid character | aid character | pid character | qty integer | totalusd numeric | |
| 017 018 | Feb | c001 | a06 | p03 | 600 | 540.00 | | 1011 | Jan | c001 | a01 | p01 | 1000 | 450 | |
| 019 | Feb | c001 | a02 | p02 | 400 | 180.00 | | 1012 | Jan | c002 | a03 | p03 | 1000 | 880 | |
|)20)21 | Feb | c006 | a03 | p07 | 1000 | 600.00 460.00 | | 1015 | Jan | c003 | a03 | p05 | 1200 | 1104 | |
| 22 | Mar | c001 | a05 | p06 | 400 | 720.00 | | 1016 | Jan | c006 | a01 | p01 | 1000 | 500 | |
| 23 | Mar | c001 | a04 | p05 | 500 | 450.00 | | 1017 | Feb | c001 | a06 | p03 | 600 | 540 | |
| 24 | Mar | c006 | a06 | p01 | 800 | 400.00 | | 1018 | Feb | c001 | a03 | p04 | 600 | 540 | |
| 6 | May | c002 | a05 | p03 | 800 | 744.00 | | 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 | |
| Originally from Database Principles, Prog | | | | | | | 1023 | Mar | c001 | a04 | p05 | 500 | 450 | | |
| | | | | | | | 1024 | Mar | c006 | a06 | p01 | 800 | 400 | | |
| | | | | Originali | y jrom <u>Datat</u> | sase r rincipies, Progi | | 1025 | Apr | c001 | a05 | p07 | 800 | 720 | |
| | | | | | | | | 1026 | May | c002 | a05 | p03 | 800 | 744 | |

Part 2: Key Distinction

A super key is the column or collection of columns that ensure every row will be unique. A candidate key uniquely identifies every row in the fewest number of columns, so it is sometimes referred to as a minimal super key. A primary key is the chosen candidate key. This key is the most important, and establishes the relationships between tables. So, in short, the super key sets each row apart in any way. A candidate key is the shortest way to create a super key. And the primary key is one row the sets the table apart and links the table to others as a foreign key elsewhere.

Part 3: Data Types

Data types are extremely important. Data types include strings, integers, floating points, booleans, etc. Keeping columns locked to one data type attempts to keep data appropriate and uniform throughout the table. For example, if I wanted to create a table called Wrestlers. I could have columns such as FirstName, LastName, Gender, and NumTitlesWon. FirstName would be text and not null. LastName would also be text, but could be null (such as with Sting, he has no second name. Gender could be an int, 0 for male, 1 for female and cannot be null. NumTitlesWon would be an int. It could be null, or it could range from 0-100. Null would only be allowed when a field isn't required, such as having multiple names or owning certain things.

Part 4: Relational "Rules" of Nature

The first relational rule, or 1NF, states that at the intersection of a row and column, you cannot have anything that has it's own structure. This means it must be atomic. This prevents any confusion in table creation and relations between tables, or complicate data conversion. This also helps with data duplication, preventing something from being stored multiple times. For example, storing "Shawn Michaels" under name is difficult, and should be split into a first name and a last name column

The second rule explains how you can only search for a row by what's in it. This is because on different systems or with different users, the same row might be in a different location on that table. This requires the use of SQL commands such as "select * from Wrestlers where name = 'Bayley'" to find certain rows.

The third rule states that for each table, all rows must be unique. This arises from set theory, and prevents confusion when searching for rows. Because of the second rule, we can only search by content. So if two rows have the same exact content, there would be literally no way to distinguish the two or find one row.