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Lab 2

Select *
From customers;

	cid character(4)	name text	city text	discount numeric(5,2)
1	c001	Tiptop	Duluth	10.00
2	c002	Basics	Dallas	12.00
3	c003	Allied	Dallas	8.00
4	c004	ACME	Duluth	8.00
5	c005	Weyland-Yutani	Acheron	0.00
6	c006	ACME	Kyoto	0.00

Select *
From agnets;

	aid character(3)	name text	city text	percent real
1	a01	Smith	New York	6
2	a02	Jones	Newark	6
3	a03	Brown	Tokyo	7
4	a04	Gray	New York	6
5	a05	Otasi	Duluth	5
6	a06	Smith	Dallas	5
7	a08	Bond	London	7

Select *
From products;

	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	clip	Newark	200600	1.25

Select *
From orders;

	ordno integer	mon character(3)	cid character(4)	aid character(3)	pid character(3)	qty integer	dollars 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	740.00

The primary key is a field that makes a record unique. This key used to be a candidate key. The candidate key is the minimum set of columns that you can choose that is a key that makes your row unique. This key is not necessary a primary key. The superkey is a set of columns or attributes that make tables have unique rows. This key is used to identify mistakes form the first rule of Normal Form.

There are multiple data types, the most commonly used are as follows. CHAR is used to denote a string of characters. BOOLEAN is a type that is either a TRUE or FALSE. INT and INTEGER is used for integer numbers, meaning numbers that are whole numbers. FLOAT and DOUBLE is used for decimal numbers. DATE and TIME are special strings that are used for date and time. An example of a table can be a table for classes. The name of the table can be Classes. The fields that this table would have are name (of the class) as a CHAR, section (number for the class) as an INT, grade (current grade for you as a student) as a FLOAT, meeting (when the class meets during the week) as DATE and TIME, and offered (if the class is currently offered for that semester) as a BOOLEAN. The only field that can be nullable in this table would be grade. For instance, during the beginning of the semester, no student has a grade yet. Also, a transfer student will not have a grade even if the semester is already half way through. The other fields must be filled out so they cannot be null.

The “first normal form” rule ensures that there are no repeating groups or columns. This is important because if there is something that is repeating in your database, it can waste space and become inefficient. Additionally, it would be confusing to call for a piece of data if they are labeled the same. The “access rows by content only” rule asks “what” and not “where.” This is important for retrieving data because as a user trying to retrieve the data, we don’t care about where it is in the database. We only need the content and if you ask where, the database will react unpleasantly and most likely give you something unreadable or spasm. The “all rows must be unique” rule is just as it implies, the rows of a table must be unique. If there are multiple rows or even just two rows that share a common field, calling for that field will confuse the computer. There will be more than one field the system can give back to you, and that may not be the field you wanted. There needs to be a separation of rows so that you can retrieve the information that you called for.