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Database Management

Lab 2

2. Candidate Key: The smallest combination of fields that can uniquely identify records in a table.

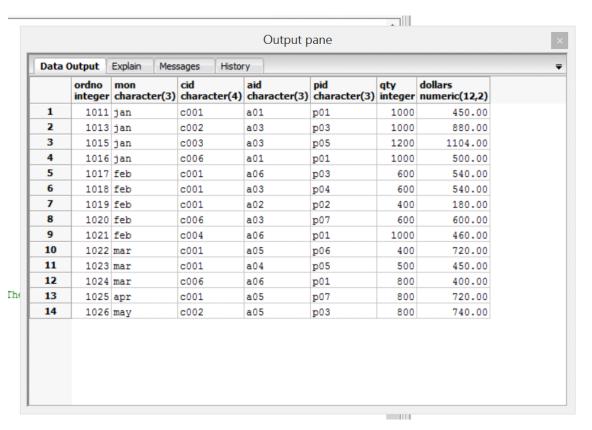
Primary Key: A Candidate key that is used as the main point of unique reference and identification for records in a table, which is also used to refer to those records throughout the rest of the database.

Super Key: Any combination of fields in a table that identifies all records within the table.

- 3. SQL contains a large number of data types, among them char, text, int and datetime. Each of these specific types deals with a different category of data, such as strings, numbers, and the time of day. However, char and text are both subtypes of the character strings data category. These types can be well defined and explained in a scenario involving a table for letters received from certain people over the course of a week. In this instance, char could be used to denote the delivering names or addresses of each individual sender, int could be used to denote the number of letters received from those people, and datetime could be used to define what specific time each letter was received at. The char and datetime segments obviously can't be null, as a letter must be received at a time and must have a sender. However, in this instance int can be null, as it is possible to receive no letters from a perosn you may be tracking letters received from.
- 4. Normal form rule: Databases should be comprised of tables consisting of rows and columns, following the convention of atomicity.

Access rows by content only rules: One should never be concerned of the location of an element within the database, but rather only the content of the element.

All rows must be unique rule: All rows should be unique in their combination of keys/identifiers, as if all those identifiers of a record were the same as another, they might as well be the same.



Data Output Expla		Explai	n Messages	Messages History	
	cid charac	ter(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-Yuta	ni Acheron	0.00
6	c006		ACME	Kyoto	0.00

Data Output		Explai	n Me	essages	History
	aid charac	ter(3)	name text		percent real
1	a01		Smith	New Yor	rk 6
2	a02		Jones	Newark	6
3	a03		Brown	Tokyo	7
4	a04		Gray	New Yor	rk 6
5	a05		Otasi	Duluth	5
6	a06		Smith	Dallas	5
7	a08		Bond	London	7

Data Output Expla		Explai	in Messages		History	
	pid charac	ter(3)	name text	city text	quantity integer	priceusd numeric(10,2)
1	p01		comb	Dallas	111400	0.50
2	p02	p02		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	80g		clip Newark		200600	1.25

Data Output		Explain Me	essages	Histor	ry			
	ordno integer	mon character(3	cid 3) chara	cter(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	mav	c002		a05	p03	800	740.00