



[54] LOGICAL SCHEMA TO ALLOW ACCESS TO A RELATIONAL DATABASE WITHOUT USING KNOWLEDGE OF THE DATABASE STRUCTURE

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[73] Assignee: Informix Software, Inc., San Carlos, Calif.

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[21] Appl. No.: 86,001

Primary Examiner—Thomas G. Black

[22] Filed: Jul. 1, 1993

Assistant Examiner—Hosain T. Alam

[51] Int. Cl.⁶ G06F 17/30

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[52] U.S. Cl. 395/602; 395/604; 395/611; 395/613; 395/348; 395/352

[57] ABSTRACT

[58] Field of Search 395/600, 425, 395/400, 700, 161, 602, 604, 611, 613, 607, 348, 352; 364/419, 578, 192

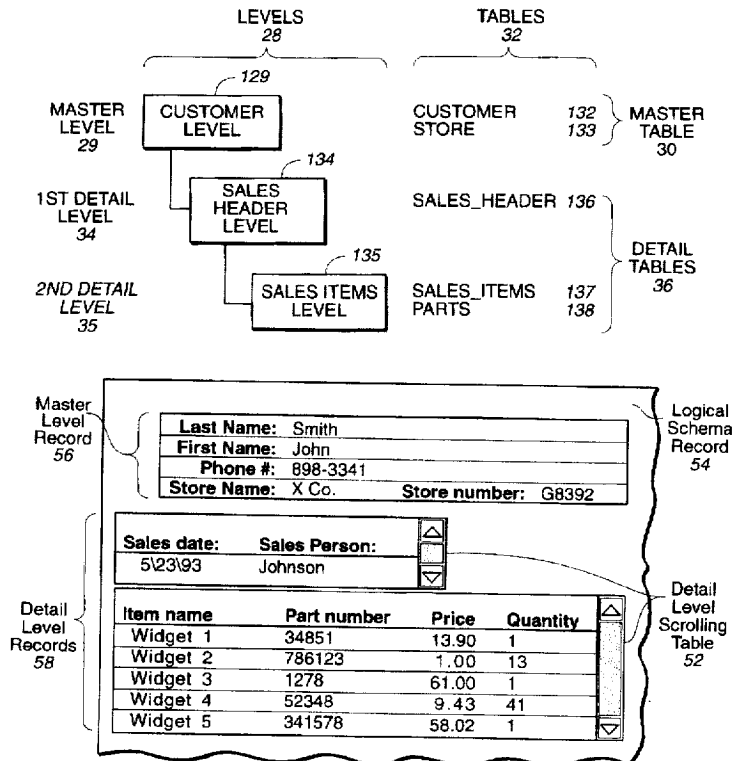
Logical schemas are used to allow an end user the ability to access and manipulate relational database data without knowledge of the structure of the relational database. A logical schema is first created specifying which tables are available to an end user, and the relationships between columns of those tables. The logical schema defines a structure for the data fields having a master level and a plurality of detail levels. An end user may manipulate the logical schema using a graphical interface to build customized forms, reports, and queries. An end user is not required to be familiar with a database query language, such as SQL, or the structure of the relational database.

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11 Claims, 12 Drawing Sheets



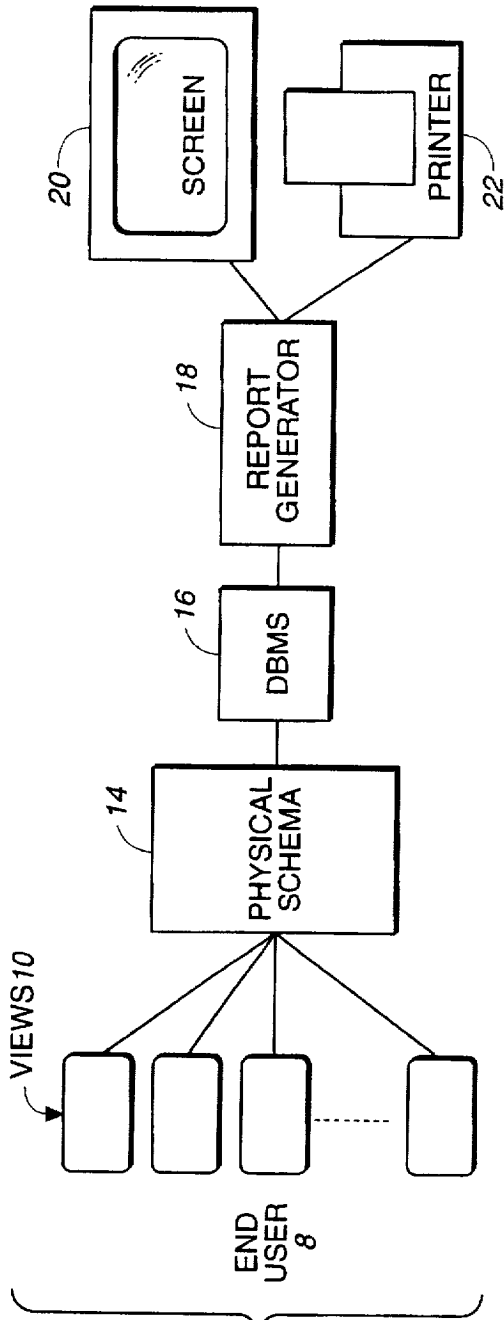


FIG. 1

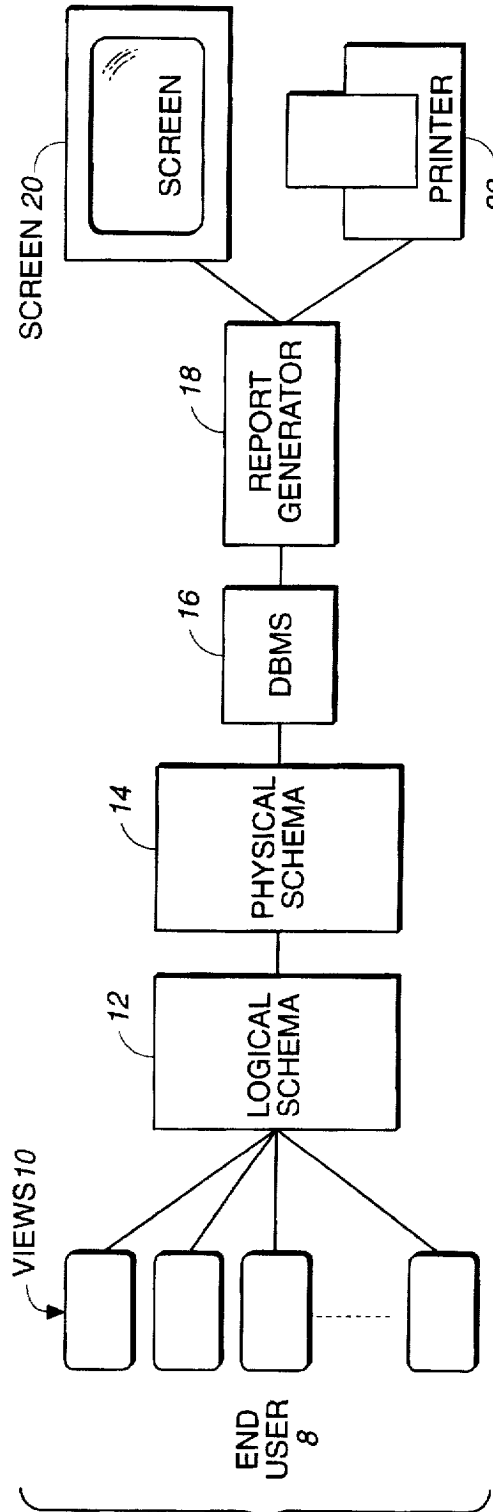


FIG. 2

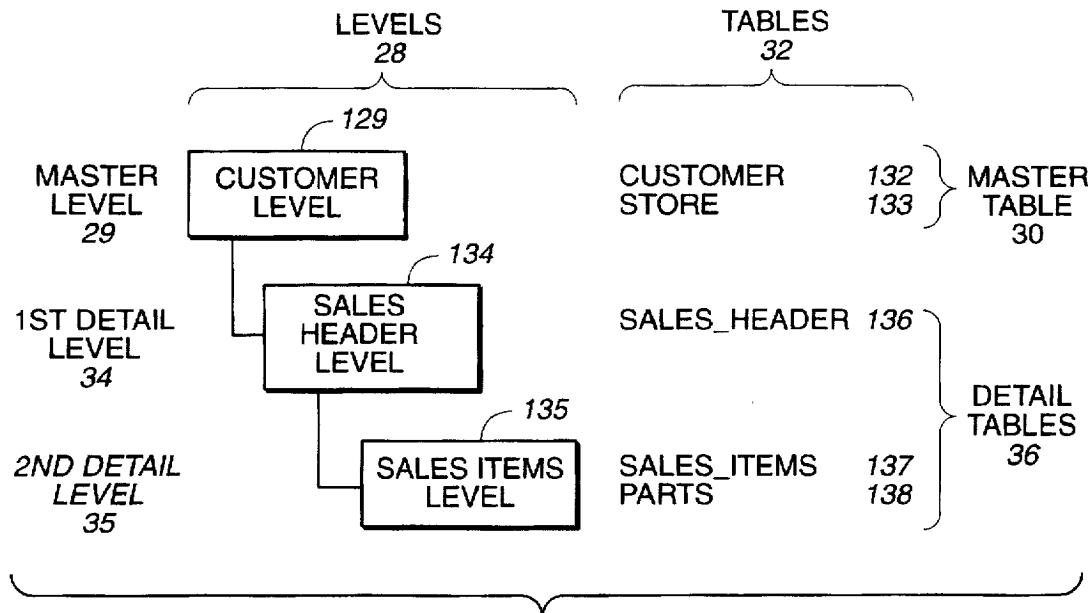


FIG._3

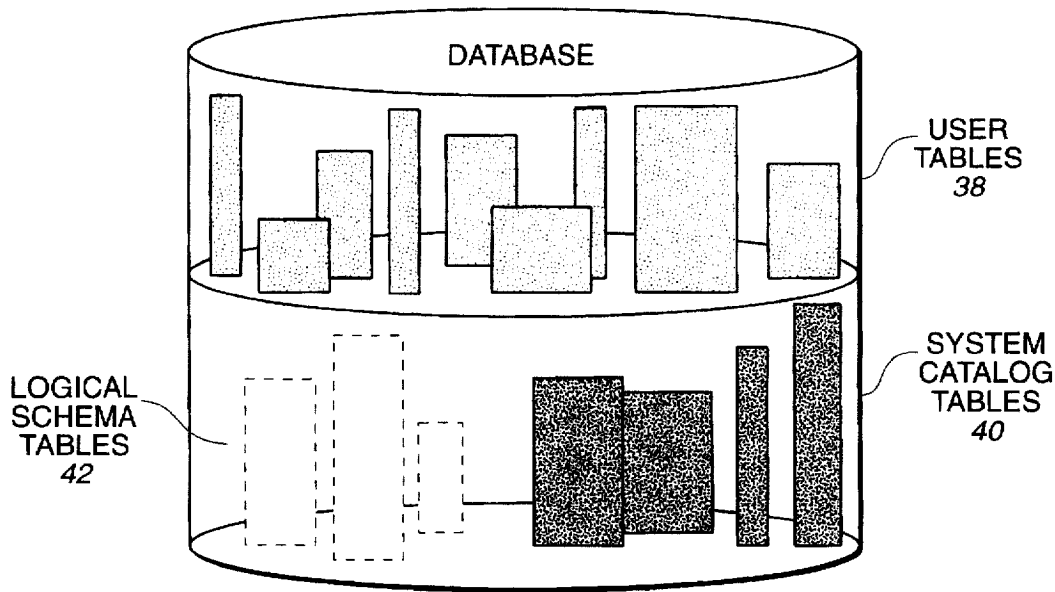


FIG._4A

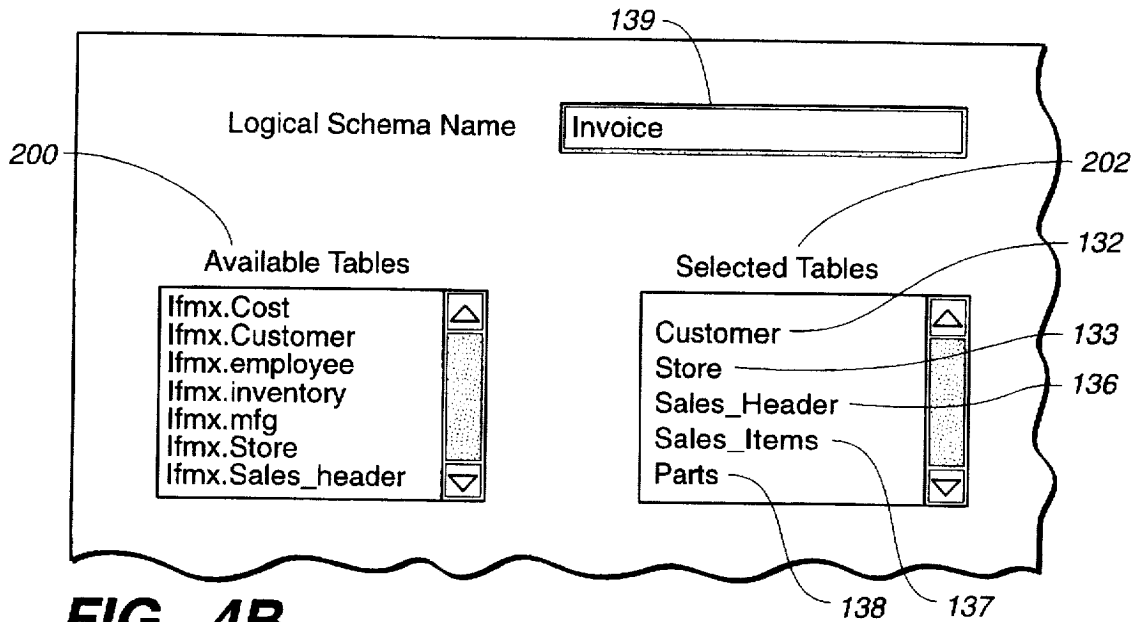


FIG._4B

Column Name	Type	Description
svwid	serial	Logical Schema identifier
owner	char (32)	Logical Schema owner
svwname	char (32)	Short name of Logical Schema name: unique within syssuperviews.svwname
remarks	char (72)	Logical Schema description (narrative)
Index Name	Type	Columns
superview1	unique	svwid
superview2	unique	svwname

FIG._5

Column Name	Type	Description
svwid	int	Logical Schema identifier
tableseq	int	table instance identifier unique within svwid
owner	char (32)	reference to owner in systables
tablename	char (32)	reference to tablename in systables
masteralias	char (32)	tabalias of table that is "master" of this table.
cardinality	char (1)	number of rows per master row. 1=always 1; 0=0 or 1; n=0 or more; N=1 or more; M=master. There should only be one master per Logical Schema. For master, the masteralias is NULL.
usetype	char (1)	(L) ookup only, (U) pdate
tabalias	char (32)	alias name, defaults to table name
levelname	char (32)	grouping name for all columns joined at this level.
remarks	char (72)	table instance description (narrative)
Index Name	Type	Columns
svwtables1	unique	svwid, tabalias
svwtables2	unique	svwid, tableseq

FIG. 6

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