

What is claimed is:

1. A method comprising:

automatically determining a component of a security label for each first record in a first table of a database having multiple tables, including:

identifying second records related to the first record according to a foreign key relationship;

identifying a component of the security label for each of the second records; and

assigning a value for the component of the security label for the first record based on the identified components of the security label for the second records, including concatenating at least some of the identified components of the security labels for the second records to form the component of the security label; and

storing the determined security label in the first record.
2. The method of claim 1, wherein the concatenated components of the security label comprise multiple distinct values.
3. The method of claim 1, including automatically determining a component of a security label for each third record in a third table of the database based on an attribute of the third record, the attribute of the third record being a value stored in the third record.
4. The method of claim 1, including automatically determining a component of a security label for each third record in a third table of the database based on a value associated with the third table.
5. The method of claim 1, in which the second record is in a table other than the first table.

6. The method of claim 1, wherein the component is a first component of the security label for the first record, and wherein the method includes determining a second component of the security label for the first record.
7. The method of claim 1, including updating the component of the security label for a particular first record responsive to a trigger event.
8. The method of claim 7, in which the trigger event includes a change in the foreign key relationship.
9. The method of claim 7, in which the trigger event includes a change in the component of the security label for the second record related to the particular first record.
10. The method of claim 7, including detecting the trigger event.
11. The method of claim 7, including receiving a notification of the trigger event.
12. The method of claim 1, including receiving a request for access to a particular first record from a user, the user being associated with a user security code.
13. The method of claim 12, including restricting access by the user to the particular first record based on a comparison between a component of the user security code associated with the user and the component of the security label for the particular first record.
14. The method of claim 13, including determining the security label for the first record prior to receiving the request for access.
15. The method of claim 1, including automatically determining the component of the security label for a particular first record when the first record is received for storage in the database.

16. A non-transitory computer-readable medium storing instructions for causing a computing system to perform the method of any one of claims 1 to 15.
17. A computing system including:
a processor coupled to a memory, the processor and memory configured to perform the method of any one of claims 1 to 15.
18. A computing system including:
means for automatically determining a component of a security label for each first record in a first table of a database having multiple tables, including:
identifying second records related to the first record according to a foreign key relationship;
identifying a component of the security label for each of the second records; and
assigning a value for the component of the security label for the first record based on the identified component of the security labels for the second records, including concatenating at least some of the identified components of the security labels for the second records to form the component of the security label; and
means for storing the determined security label in the first record.
19. A method comprising:
determining that a first record stored in a first table of a database having multiple tables has been updated;
automatically updating a first security label for the first record;
storing the updated security label in the first record; and
automatically updating a second security label for a second record stored in a second table of the database, the second record being related to the first record according to a foreign key relationship.

20. The method of claim 19, including determining whether the update to the first record affects the first security label for the first record.
21. The method of claim 19, including:
determining which one or more components of multiple components of the first security label are affected by the update to the first record; and
automatically updating the affected one or more components of the first security label.
22. The method of claim 19, wherein the second table is a child of the first table.
23. The method of claim 19, including determining whether the update to the first record affects the foreign key relationship.
24. The method of claim 19, including:
determining which one or more foreign key relationships of multiple foreign key relationships are affected by the update to the first record; and
automatically updating the second security label for each second record related to the first record according to the affected foreign key relationship.
25. A non-transitory computer-readable storing medium storing instructions for causing a computing system to perform the method of any one of claims 19 to 24.
26. A computing system including:
a processor coupled to a memory, the processor and memory configured to perform the method of any one of claims 19 to 24.
27. A computing system including:

means for determining that a first record stored in a first table of a database having multiple tables has been updated;

means for automatically updating a first security label for the first record;

means for storing the updated security label in the first record; and

means for automatically updating a second security label for a second record stored in a second table of the database, the second record being related to the first record according to a foreign key relationship.