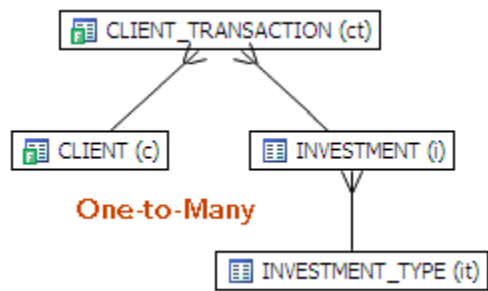
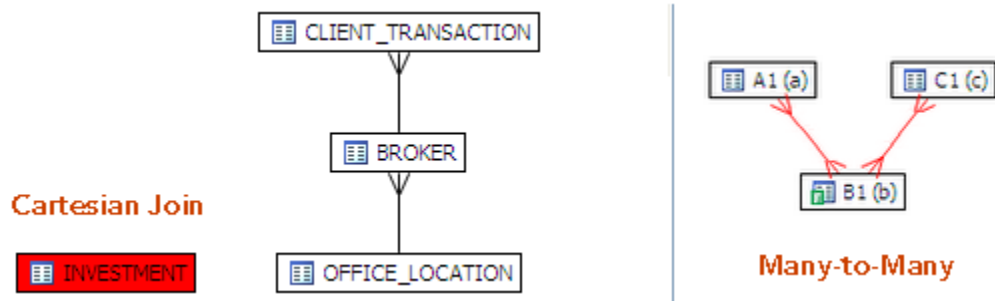


# Finding Problematic SQL or Schema

In the Visual SQL Tuning (VST) diagram, a well-formed query would resemble the following:



Problems such as Cartesian joins, implied Cartesian joins, and many-to-many relationships are clearly represented in the VST.



Joins are represented with connecting lines between nodes. The following describes when a particular type of connecting line is used and the default positioning of the line.

Connecting Lines	When Used
	One-to-One Join relationships are graphed horizontally using blue lines. One-to-one joins exist when two tables are joined on their primary key.
	One-to-Many Join relationships are graphed with the many table above the one table.
	Cartesian Join shows the table highlighted in red with no connectors to indicate that it is joined in via a Cartesian join. The query is missing join criteria. A Cartesian join problem could be resolved by implementing a rewrite suggestion shown in the Generated Cases area of the Overview tab.
	Many-to-Many Join relationships are connected by a red line and the relative location is not restricted. If master detail information is missing then the VST diagram will have many-to-many connectors. The optimizer can more consistently optimize a well-formed query, so the query will run faster.