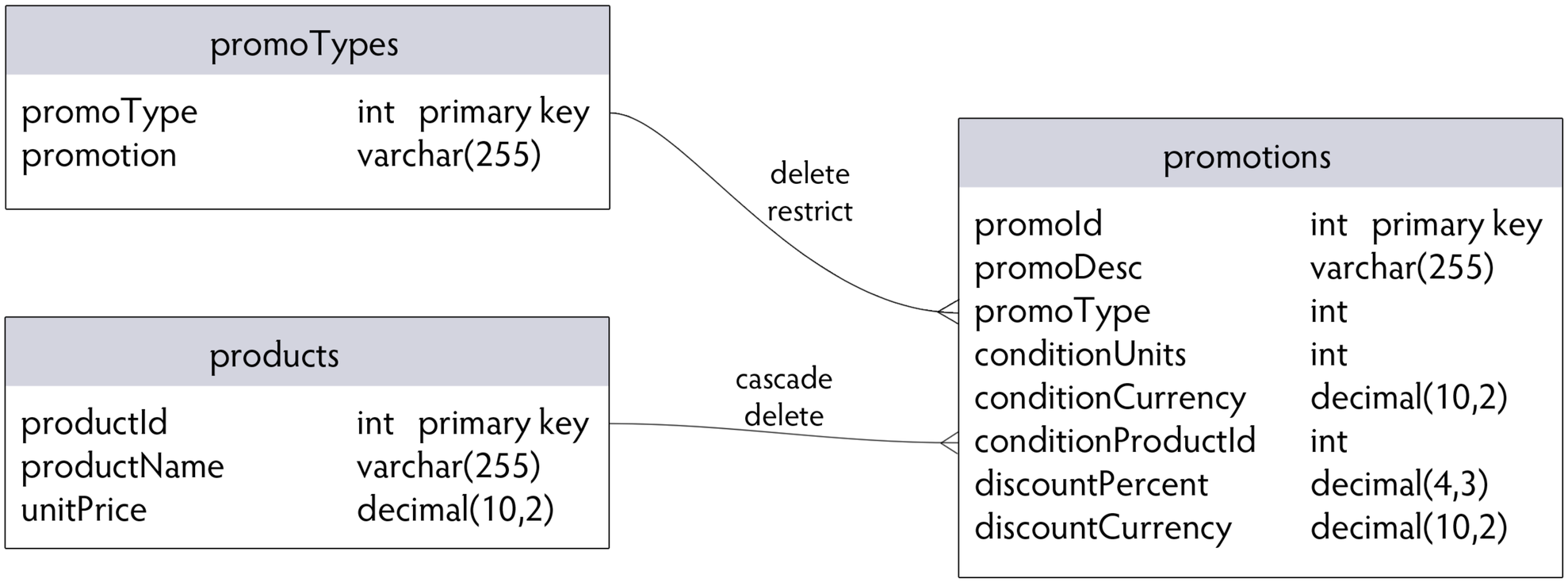
Promotions — Physical Data Model



Design Decisions

There are many ways to design a database structure. It is my opinion that the database is the foundation of any application, and as such, it should support your business rules (vs. making programming easier for the developer) and be efficient in terms of disk space and speed.

You will notice that I put all the promotion information in one table. Another way to design the database would be to normalize those columns into additional tables, but I made the assumption that there would never be more than a couple thousand promotions at a time. Keeping all the columns in the same table will save disk space because fewer indexes and foreign keys will be needed, and few joins will be needed for data retrieval, which will make data access faster.

There are two foreign keys on the *promotions* table. The key to *promoTypes* should be defined as "delete restrict" so that you cannot accidently delete a promotion type that is in use.

The key to the *products* table should be defined as "cascade delete" so that removing a product will automatically remove any promotions using that product.