

+10: great description and detail; extremely well written.

RA:

-1: a traffic violation can only be committed by one person, the driver...

-0: your descriptions of how to calculate the assignment of police officers should consider the population. If you have a high crime rate but a small population you need less officers than a borough with a high crime rate and a large population.

-1: the address for the crime is a problem. If it is a traffic violation, then it's the intersection, and we keep track of it; if it is a crime, your address should somehow relate to the borough

-1: your traffic violation might need a type (red light, speeding, parking, ...). You later indicate that both crimes as well as traffic violations have a severity, but you don't indicate any here.

-0: for simplicity, your borough should probably have the name as primary key.

E/R:

-2: Offense should not have a type attribute.

hierarchy: note that you draw the triangle only once and both edges to traffic violation and crime go out from the same triangle

-1: policestation shouldn't have numberCars

-0 all your 1-to-many queries should probably also have participation constraints.

Translation:

-1: basically all your 1-to-many relationship sets also have a participation constraint (e.g., an intersection is exactly in one borough, a police station is exactly in one borough, a crime is committed in exactly one borough, etc. )

In this case it makes usually more sense not to have an extra table for the relationship set but to include the foreign key to the other table into the base table. For instance, let crime have an extra attribute *bid* referencing borough (although I suggest you to simply use the borough name as primary key for borough).

This will lead to less complex queries as the information is more compact and you still do not lose any information or introduce redundancy.