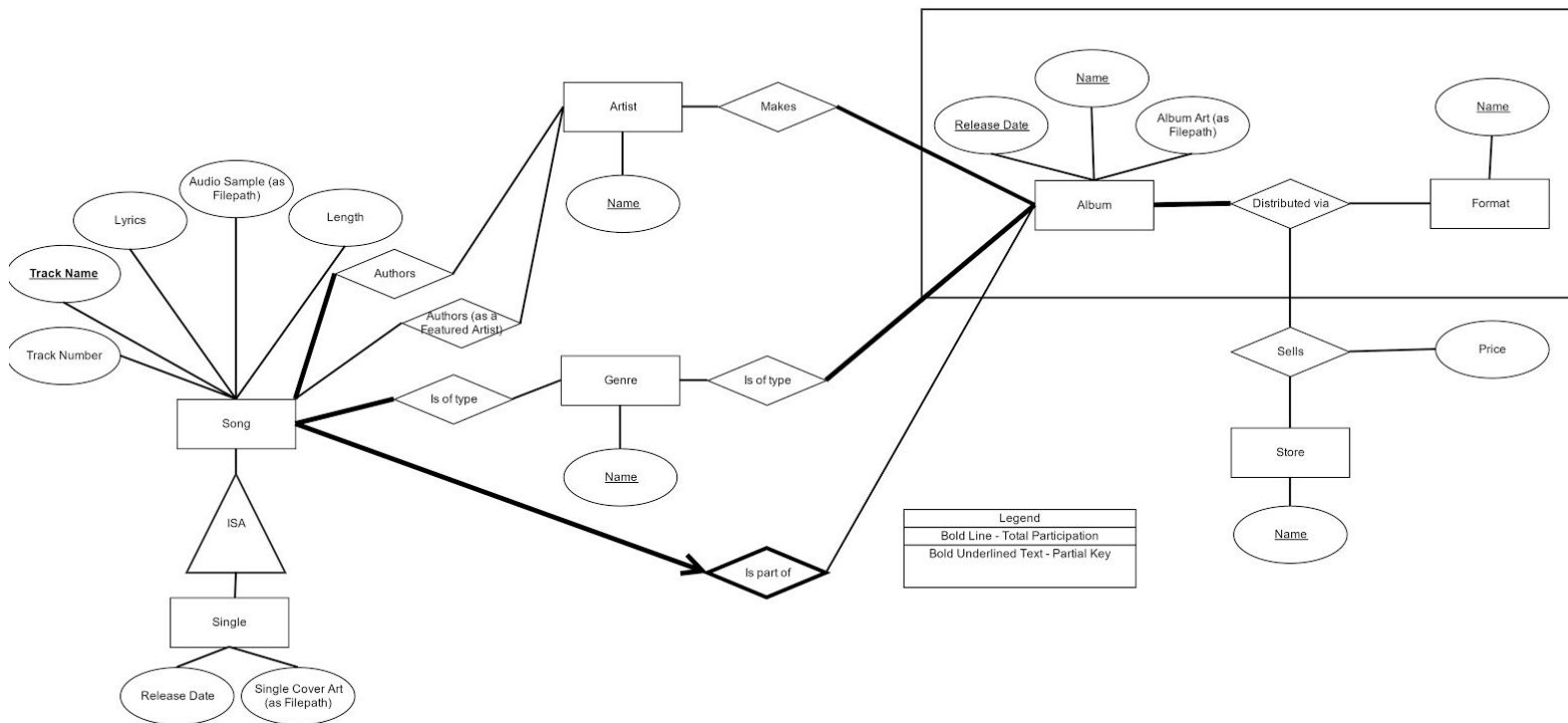


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Analysis & Class Diagram

1. ERD Diagram



Note that this ERD is slightly different than the ERD from the project progress report, which contained Album Tracks and Singles as generalizations of Songs. After examining more sample data, we found that there was really no difference between an Album Track and a general Song. As a result, the Album Track entity was removed from the Song generalization.

2. Tabular Relationship

| Serial No | Noun | Verb | Noun |
|-----------|-------|-----------------|--------|
| 1 | Album | Contains | Song |
| 2 | Album | Distributed via | Format |

| | | | |
|---|--------|--------------------------------|----------------------------|
| 3 | Store | Sells | Album (of specific format) |
| 4 | Album | Classified as | Genre |
| 5 | Song | Classified as | Genre |
| 6 | Artist | Authors | Song |
| 7 | Artist | Authors (as a featured artist) | Song |
| 8 | Artist | Makes | Album |
| 9 | Single | Is a subset of | Song |

3. We created the ERD before the relationship table. As a result, we knew exactly which relationships we had in our project, and all of the nouns we use are entities rather than attributes.
 - a. Album - Entity
 - b. Song- Entity
 - c. Format- Entity
 - d. Store- Entity
 - e. Genre- Entity
 - f. Artist- Entity
 - g. Single- Entity
4. The Composition/Aggregation is illustrated in the ERD. A Store entity sells Album entities that have a specific Format entity. This is an aggregation because a Store's selling relationship has a relationship with Albums' distribution relationships with Format.
5. The ERD contains a generalization with Singles being generalized by Songs. While general Songs and Singles share many characteristics, Singles also have some unique attributes which allows for the use of a superclass called Songs containing the general attributes.
The covering constraint is that a song may or may not be a Single.