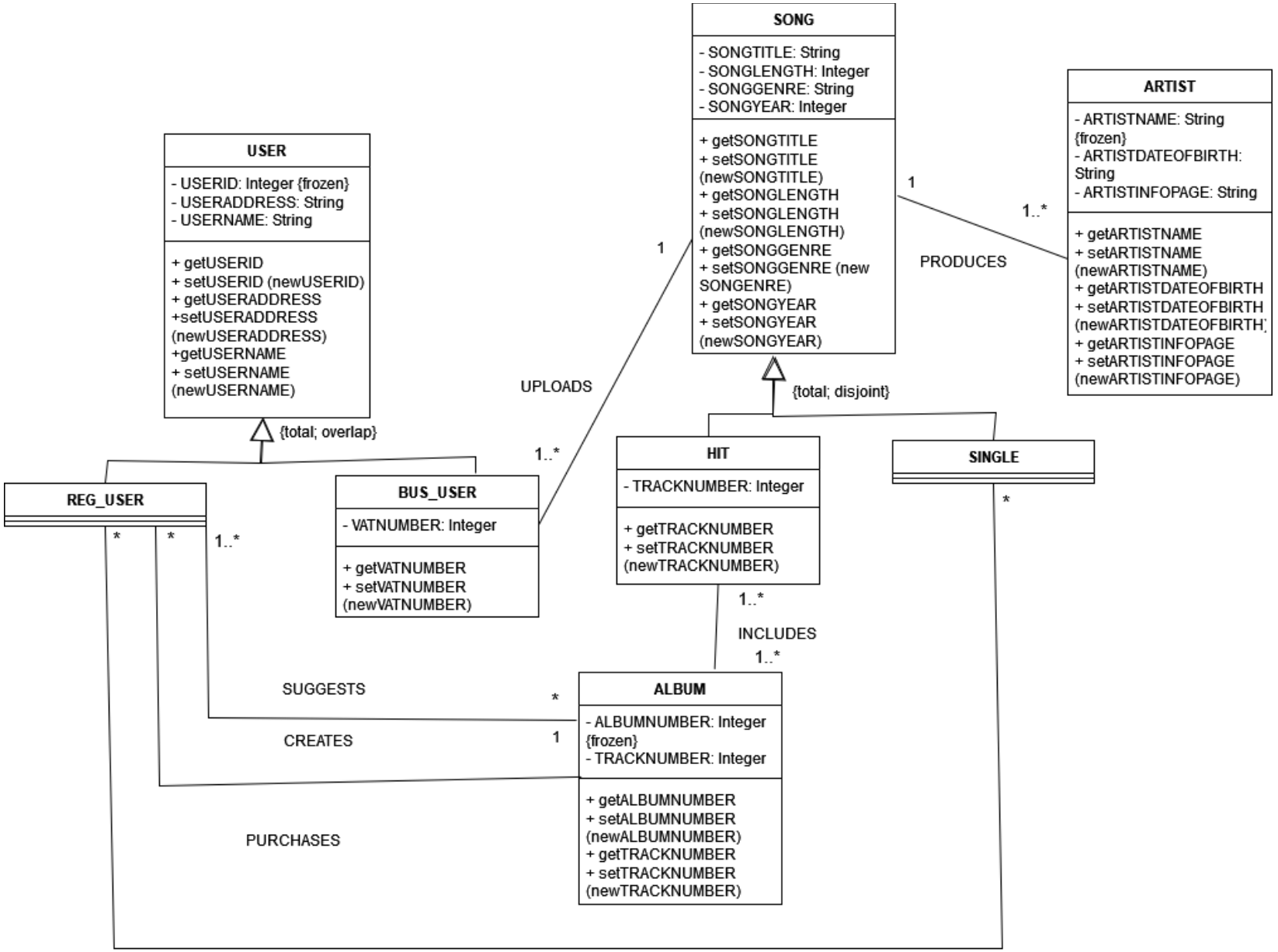
Lab 4. Object Oriented Modeling (UML)

Noah Zhou



Assumptions:

1. Songs are always uploaded by only 1 business user
2. Hits can be a part of 1 or more albums
3. 1 song is only produced by 1 artist but 1 artist can produce more than 1 song
4. Album and hits share a track number attribute
5. Hits and singles have a total disjoint specialization within song because there cannot be single hits
6. Regular users and business users have a total overlap specialization within users because users can either buy songs or upload their own songs
7. Regular users and business users inherit the userID, userAddress, and userName attributes from the User entity
8. Hits and singles inherit the songTitle, songLength, songGenre, and songYear attributes from the Song entity

Compare:

1. The UML model has methods which describe how the information is retrieved and shows access modifiers which relate to who can access such information. On the other hand, the EER model only describes the database as a whole and shows entities, attributes, and the relationships between entities. It only shows structure while the UML model shows behavior
2. The UML model shows behavior which makes understanding how the database would work much easier. It is more simplified than the EER but shows more information at the same time. The methods and access modifiers in the UML model provide a baseline for how the database would work in a test/real environment