Nidhi Praveen Jain
Email – nidhiprj@usc.edu

Nidhi Praveen Jain
Email – nidhiprj@usc.edu

Attribute description of entities:
- user:
  userID, fullName, nickName, age, emailId are single-valued, simple and stored attributes
  followedBy, follows are simple, multi-valued and stored attributes
  location is a composite, single-valued and stored attribute having city, state, country which are simple, single-valued and stored attributes

- message:
  dateTime is a simple, single-valued and stored attribute

- public:
  tweetID, tweetText, hashTags, originalTweetId are simple, single-valued and stored attributes
  location is a composite, single-valued and stored attribute having longitude, latitude which are simple, single-valued and stored attributes

- private:
  message is a simple, single-valued and stored attribute

Points to note:
- A private message can be received by more than 1 users hence, the many-to-many relation 'receives' between 'user' and 'private' and a one-to-many relation 'sends' between 'user' and 'private' because 1 private message can be sent by 1 user but a user can send many private messages.
- A user can repost a public message hence the relation 'reposts' which is a many-to-many relation. If a tweet is reposted it must contain author's user id and original tweet id. Thus, the attribute originalTweetID is added which will be null if a tweet does not have any original tweet ID. And, the original user ID will be taken from the 'sends' relation between 'user' and 'public' where userId will be a foreign key in 'public' referencing 'user'.
- dateTime of 'message' entity will be used as one of the primary keys in 'private' entity along with two other foreign keys (userID of sender and receiver) but it's not needed to be a primary key in 'public' entity.