Homework 1 Forum

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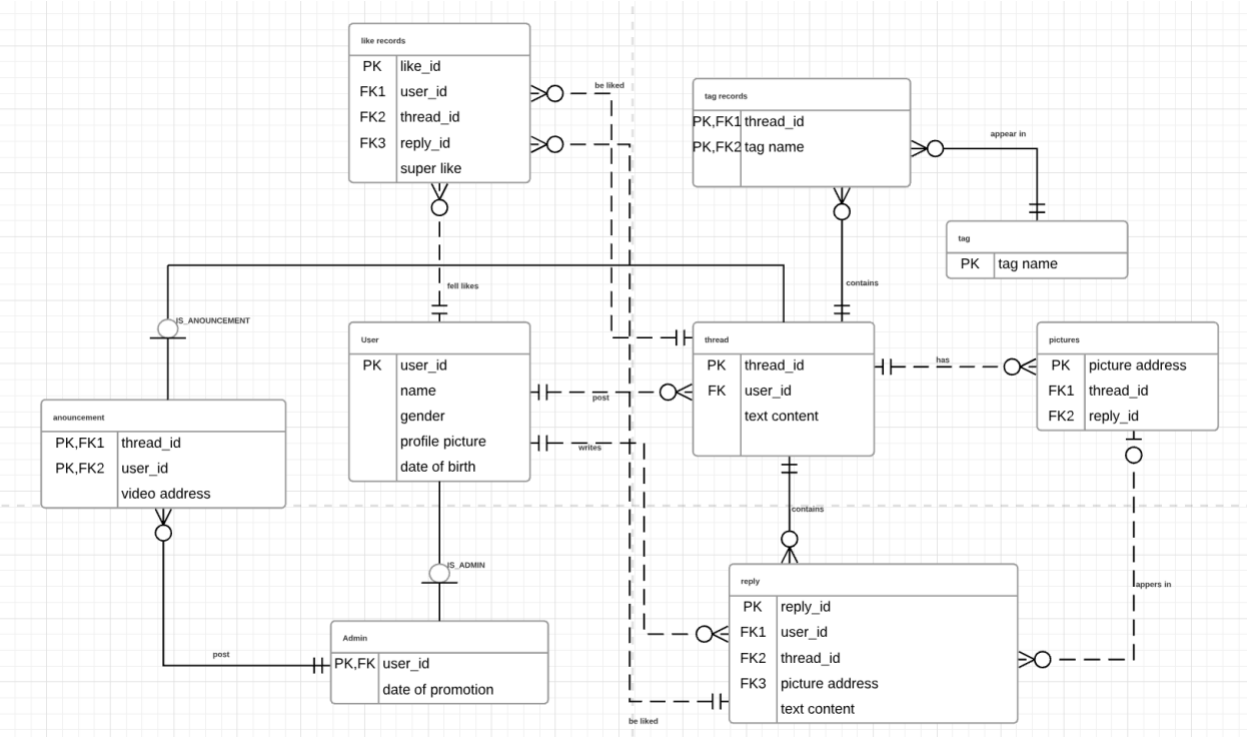

The user entity has one primary key as user_id, and several primate attributes like name, gender, profile picture and date of birth.

The administrator entity is partial inherited from the normal user entity which has the user_id as both the primary key and the foreign key.

Because most of the date of the profile data will inherited from the user entity, so the only primate attribute left in the Admin entity is the date of promotion.

For the user entity, it can create threads. The user entity and thread entity have a 1:M relationship, where each user can create multiple threads but each tuple in thread entity can only related to one user entity. The thread entity has thread_id as their primary key, and has user_id as foreign key and text content as private key.

Thread entity also has a 1:M relationship with pictures. Each thread can be related to multiple or zero pictures in picture entity. The picture entity has picture address as primary key and use thread_id as the foreign key in this relationship.

Because thread could contain several or zero tags. I use a tag set entity to connect tag entity and thread entity. Each tuple in tag set entity is a record for thread thread_id to have tag tag_name.

The reply entity is written by the user entity, so it has a 1:M relationship with the user entity. The thread entity also contains reply entity. Each user can have several replies under different thread and each thread can have multiple replies related to it. The reply entity has reply_id as primary key and has user_id, thread_id and picture address as their foreign key. Because at most 1 picture could be included in one reply, so the picture address attribute could be null or related to pictures.

All the like machenism are implemented by the like_records entity. Users can like either thread or reply. And each time they press like, there will generate a record in the like_record entity. If user liked a thread, the thread_id will be recorded and reply_id will set null. Otherwise a user liked a reply, the reply_id will be recorded. If a user feels superlike, the private attribute superlike will be set to 1(default by 0). The primary key of the like_records entity is like_id. It has relationship with user entity, reply entity and thread entity.

The announcement entity is inherited from thread. The only difference is that it may contains a video address indicates that it contains a video with the announcement. The announcement should be posted by admin so it has a foreign key as user_id to indicate which administrator posted the announcement.