

University of Puerto Rico at Mayagüez
Computer Science and Engineering Department

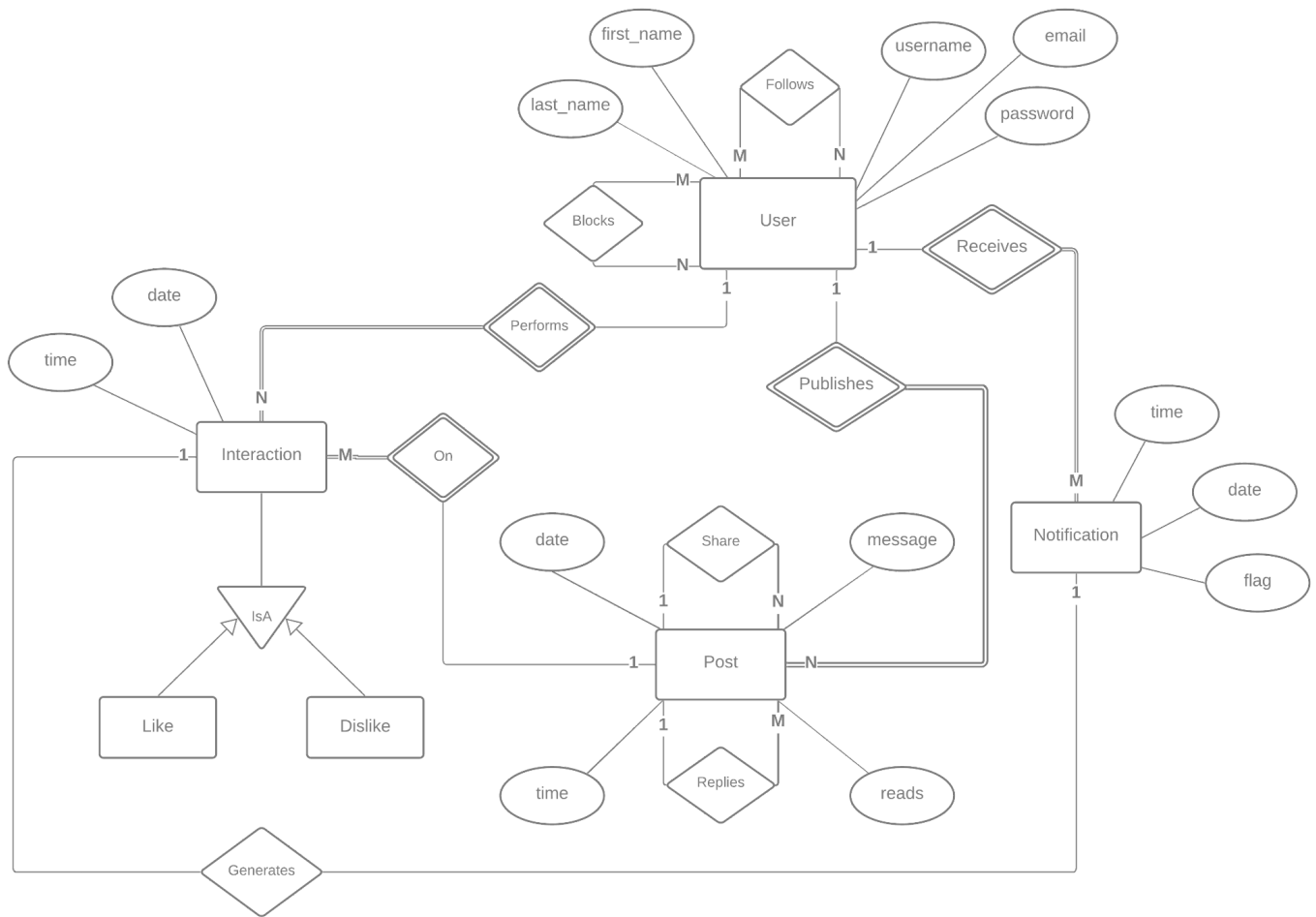


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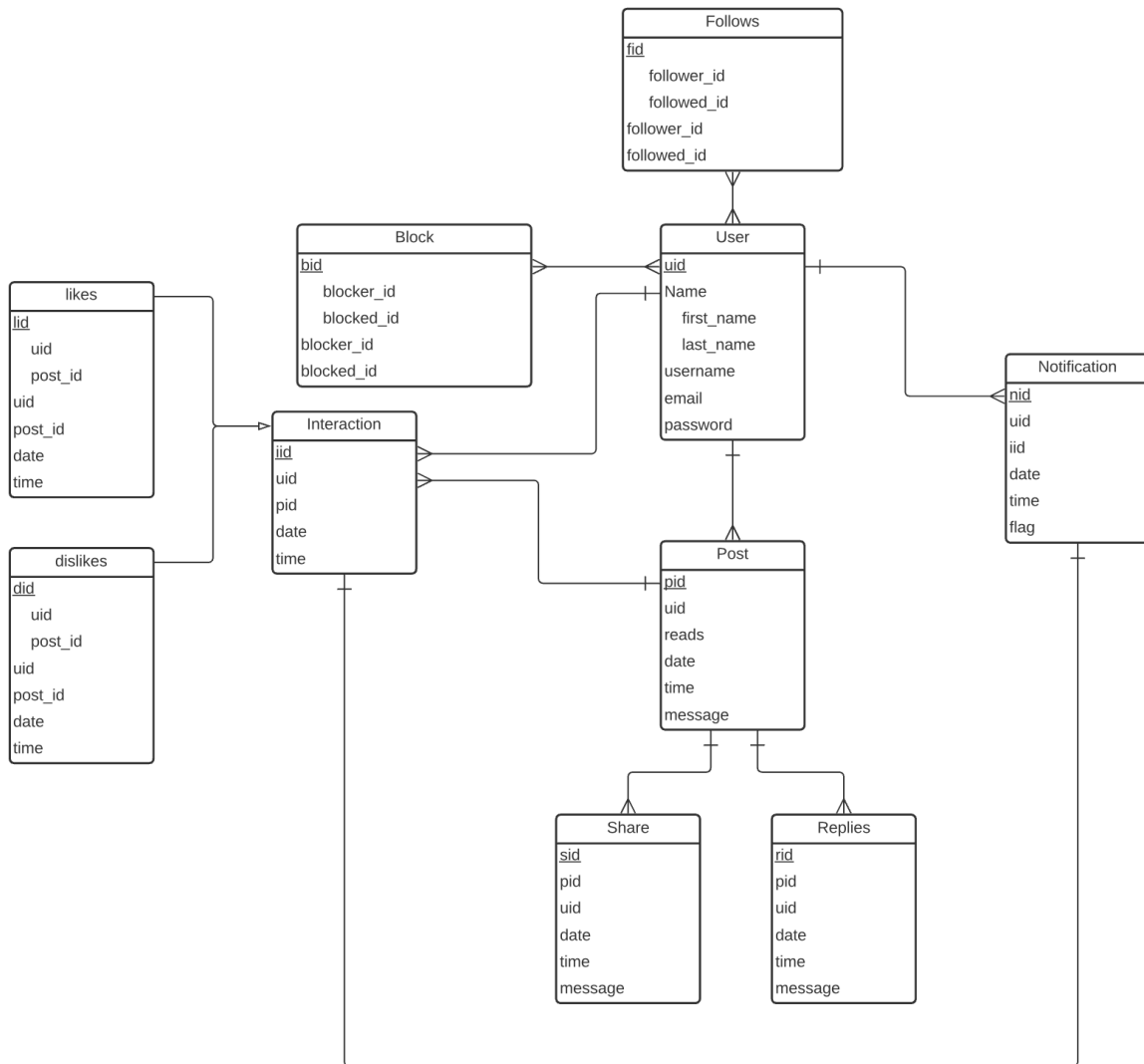
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Updated ER Diagram



Share was changed from an interaction to a relationship of the post entity because it shared similar behavior as the Replies relationship, and since they both may contain their own message, it is best to store them in separate tables. Thus, to illustrate this in the diagram, these entities were changed from one-to-many *weak* relationships with total participation on the many sides, to one-to-many *strong* relationships. As weak relationships (previous version), none of these relationships would have to be mapped into tables, thus the post table would have two additional columns, one to reference the post being shared or replied, and an additional field to identify which type of interaction it is, Reply or Share. Hence, by separating the shares and replies into individual tables, the domain is more accurately reflected. Additionally, to avoid having duplicate entries in the likes and dislike tables, their primary key was selected to be a composite key composed of the post_id and the user_id. Likewise, the primary key for the blocks and follows was also selected to be the composite key composed of the (blockedID, blockerID), and (followedID, followerID), respectively.

Table Diagram



The four entities that are represented in the ER diagram are User, Post, Notification, Interaction, all of them are now mapped in tables with their respective attributes. The relationships that were mapped into tables are the Block, Follow, Share and Replies. Follows and Blocks are many-to-many relationships therefore a table is needed to map them. Share and Replies are also mapped to tables because they are strong one-to-many relationships and to accurately model the domain, since they have different fields from posts. The other relationships that are shown in the ER diagram do not need to be mapped to tables because they are either one-to-one relationship or one-to-many relationships with total participation on the many sides.