

Schemas

1. User (*uid*, email, password, fname, lname, street_addr, cid, profile, photo)
2. Hood (*hid*, name, sw_lat, sw_lng, ne_lat, ne_lng, population)
3. Block (*bid*, name, sw_lat, sw_lng, ne_lat, ne_lng, population)
4. Location (*bid*, *hid*, *cid*)
5. Membership (*uid*, *bid*, approval_count)
6. Friendship (*follower*, *followee*, *timestamp*, status)
7. Neighboring (*initiator*, *acceptor*, *timestamp*)
8. Message (*mid*, author, subject, content, timestamp, level, receiver, lat, lng)
9. Reply (*rid*, *mid*, author, content, timestamp)
10. Thread (*uid*, *mid*, read, level)
11. City (*cid*, cname, state)

User:

- *uid* is auto-generated and is a primary key.
- *email* serves as username.
- *password* should be hashed properly. Or we can try Google Oauth.

Neighborhood:

- *nid* is auto-generated and is a primary key.
- *sw_lat*, *sw_lng*, *ne_lat*, *ne_lng* stores the "axis-aligned" rectangles mentioned in the *pro1.pdf*.
- *population* is the number of users in that particular *Neighborhood*.

Block:

- Similar to *Neighborhood*.

Location:

- *nid* and *bid* are primary key specifying that the block is in the neighborhood.

Membership:

- *uid* and *bid* are the primary key specifying a user is a member of that particular block.
- *uid* is a foreign key referencing *uid* in *User*. *bid* is a foreign key referencing *bid* in *Block*.
- *nid* is a foreign key referencing *nid* in *Neighborhood*.
- *approval_count* is the number of approval the user get from other users within the block. It is set to "0" when the user registers into the block. If *approval_count* >= 3, the user is in the block.

Friendship:

- *follower*, *followee* *timestamp* are the primary key specifying the symmetric friendship. *follower* sends the request, *followee* accepts the request. The request can be resend if *followee* rejects. *follower* is a foreign key referencing *uid* in *User*. *followee* is a foreign key referencing *uid* in *User*.

Neighboring:

- **initiator** and **acceptor** are the primary key specifying a unilaterally neighbor relationship.
- **initiator** is a foreign key referencing **uid** in **User**. **acceptor** is a foreign key referencing **uid** in **User**.
- **initiator** add **acceptor** into his/her neighbor list.

Message:

- **mid** is the primary key.
- **author** is a foreign key referencing **uid** in **User**.
- If **level** is set to direct message, a **receiver**, which is a foreign key referencing a **uid** in **User**, must be provided to be the receiver of this message.

Reply:

- **rid** and **mid** are the primary key specifying a **Reply** to a **Message**.
- **mid** is a foreign key referencing **mid** in **Message**.

Thread:

- **uid** and **mid** are the primary key specifying a user should see a message in his/her newsfeed timeline.
- **uid** is a foreign key referencing **uid** in **User**. **mid** is a foreign key referencing **mid** in **Message**.
- when a new reply is added into the database, a trigger sets **read** to "unread" for the corresponding message.