 **Universidad de Puerto Rico**

**Recinto Universitario de Mayagüez**

**Departamento de Ingeniería Eléctrica y Computadoras**

**Photo-Messaging-App**

**Phase II**

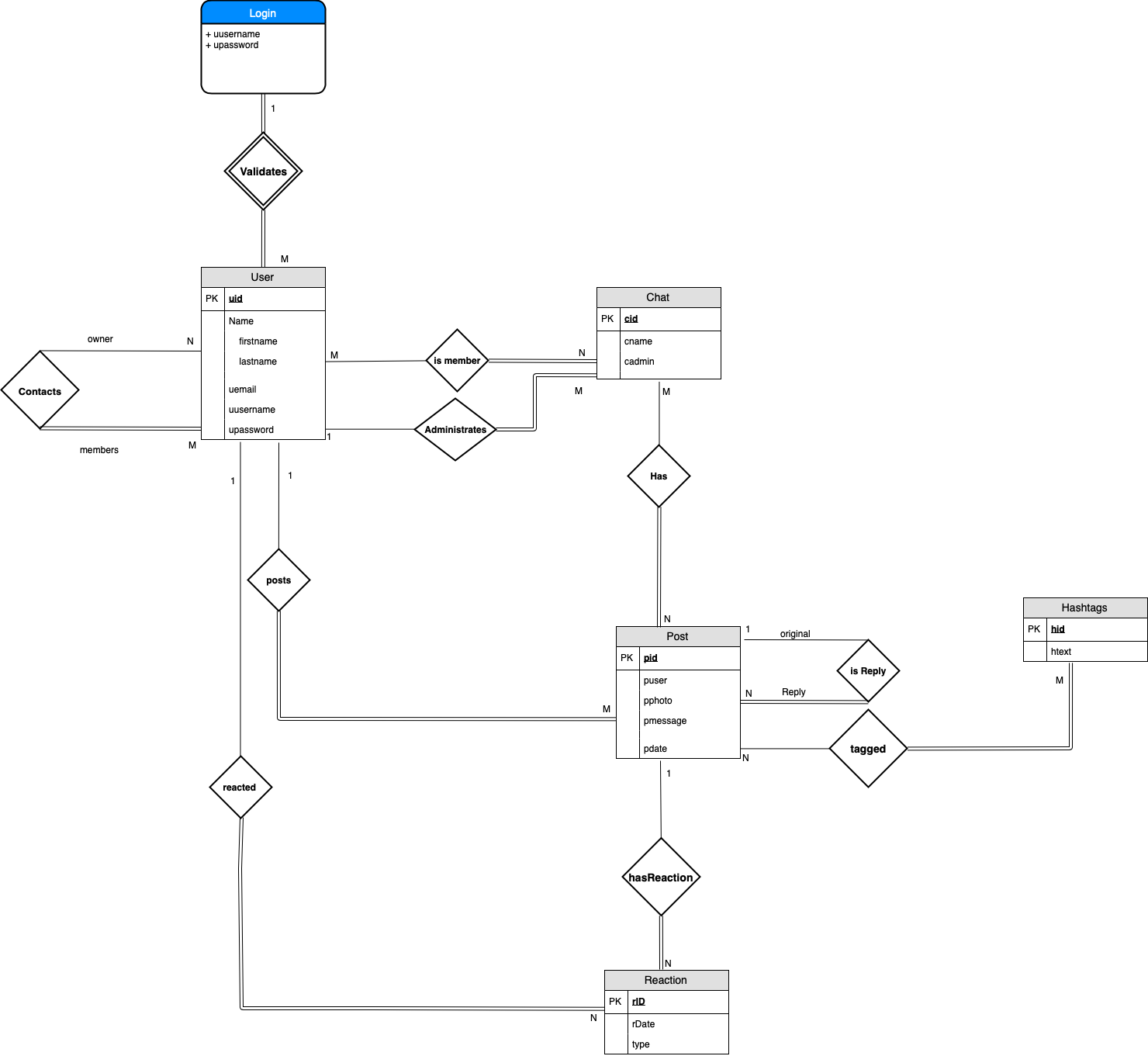
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**ICOM 5016 – Introduction to Database Systems**

\*Not final version, still under changes.

**Entity – Relationship and Schema**

1. **Entities and Relationships**
2. **Users** - users in Photo-Messaging-App
3. uid: serial Primary Key
4. ufirstname: varchar(20)
5. ulastname: vachar(20)
6. uemail: varchar(20)
7. uusername:varchar(20)
8. upassword:varchar(20)
9. **Chat** – contains information related to a chat group
10. cid: serial primary key
11. cname: varchar(20)
12. cadmin:varchar(20)
13. **Post** – messages sent on chats
14. pid:serial primary key
15. pphoto:varchar(20)
16. pmessage:varchar(20)
17. pdate: varchar(20)
18. **Hashtags** – messages sent on chats
19. hid:serial primary key
20. htext:varchar(20)
21. **Reaction**– messages sent on chats
22. Rid:serial primary key
23. type:varchar(20)
24. rdate: DATE
25. **isMember** – user in chat
26. user\_id interger references User(uid)
27. chat\_id interger referenes Chat(cid)
28. primary key(user\_id, chat\_id)
29. **isReply** – replies in post
30. reply\_id integer references Post(pid)
31. original\_id integer references Post(pid)
32. original\_id integer references Post(pid)
33. **has**- chat has posts
34. chat\_id integer references Chat(cid)
35. post\_id integer references Post(pid)
36. primary key(chat\_id, post\_id)
37. **login** – validates a user is registered
38. lid serial primary key
39. uusername varchar(20)
40. upassword varchar(20))
41. **validates** – relationship between login and user
42. login\_id integer references Login(lid)
43. user\_id integer references Users(uid)
44. primary key(login\_id, user\_id));
45. **contacts** – user are contacts
46. owner\_id integer references Users(uid)
47. contact\_id integer references Users(uid)
48. primary key(owner\_id, contact\_id)
49. **Tagged** – relationship between post and hashtags
50. post\_id integer references Post(pid)
51. hashtag\_id integer references Hashtag(hid)
52. primary key(post\_id, hashtag\_id)

**Mapping**

**create table Login**(lid serial primary key, uusername varchar(20), upassword varchar(20));

**create table Users**(uid serial primary key, ufirstname varchar(20), ulastname varchar(20), uemail varchar(50), uusername varchar(20), upassword varchar(20));

**create table Validates**(login\_id integer references Login(lid), user\_id integer references Users(uid), primary key(login\_id, user\_id));

**create table Contacts**(owner\_id integer references Users(uid), contact\_id integer references Users(uid), primary key(owner\_id, contact\_id));

**create table Chat**(cid serial primary key, cname varchar(20), cadmin integer references Users(uid));

**create table isMember**(user\_id integer references Users(uid), chat\_id integer references Chat(cid), primary key(user\_id, chat\_id));

**create table Post**(pid serial primary key, puser integer references Users(uid), pphoto varchar(30), pmessage varchar(100), pdate DATE);

**create table isReply**(reply\_id integer references Post(pid), original\_id integer references Post(pid), primary key(reply\_id, original\_id));

**create table Has**(chat\_id integer references Chat(cid), post\_id integer references Post(pid), primary key(chat\_id, post\_id));

**create table Reaction**(rid serial primary key, rDate DATE, type varchar(10), usr integer references Users(uid),  post integer references Post(pid));

**create table Hashtag**(hid serial primary key, htext varchar(30));

**create  table Tagged**(post\_id integer references Post(pid), hashtag\_id integer references Hashtag(hid), primary key(post\_id, hashtag\_id));