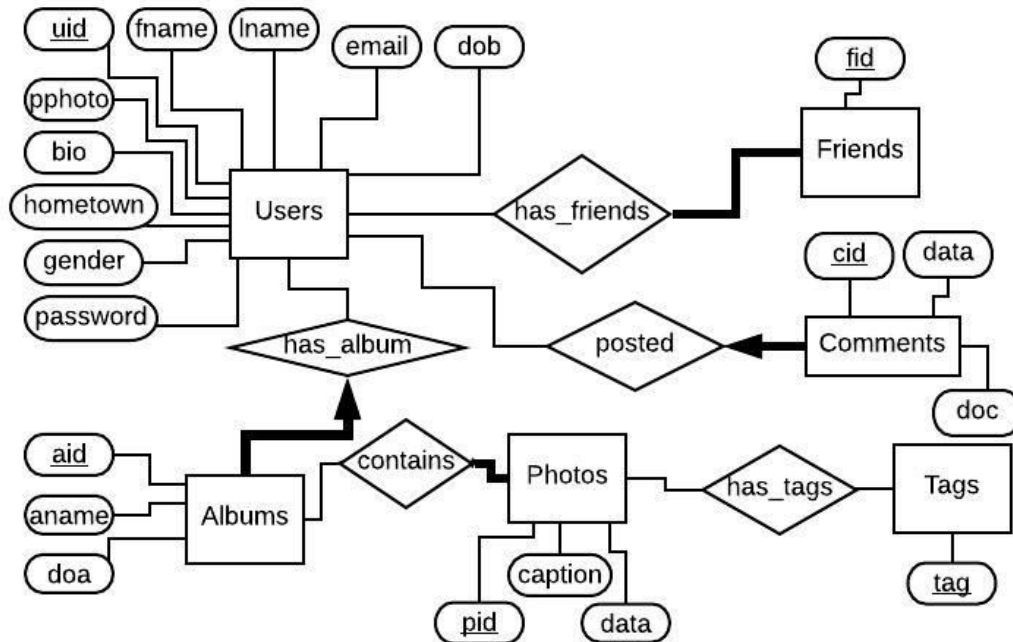


Craig Bartholomew  
PA1 Part One



```
CREATE TABLE Users (uid int NOT NULL , fname varchar(30), lname varchar(30), email
varchar(30) NOT NULL UNIQUE, dob date, pphoto longblob DEFAULT ('photo'), bio varchar
(255), hometown varchar(20), gender char(1), password varchar(30), PRIMARY KEY (uid))
```

```
CREATE TABLE Friends (uid int NOT NULL, fid int NOT NULL, PRIMARY KEY (uid, fid),
FOREIGN KEY (uid) references Users(uid) ON DELETE CASCADE, FOREIGN KEY (fid)
references Users(uid) ON DELETE CASCADE)
```

```
CREATE TABLE Albums (aid int NOT NULL, aname varchar(20), oid int, doa date, PRIMARY
KEY (aid), FOREIGN KEY (oid) references Users(uid) ON DELETE CASCADE)
```

```
CREATE TABLE Photos (pid int NOT NULL, aid int NOT NULL, caption varchar(30), data
longblob, PRIMARY KEY(pid, aid), FOREIGN KEY (aid) references Albums(aid) ON DELETE
CASCADE)
```

```
CREATE TABLE Tags (tag varchar(20) NOT NULL, pid int NOT NULL, PRIMARY KEY (tag,
pid), FOREIGN KEY (pid) references Photos(pid) ON DELETE CASCADE)
```

```
CREATE TABLE Comments (cid int NOT NULL, text varchar(255), uid int, doc date, PRIMARY
KEY (cid), FOREIGN KEY (uid) references Users(uid) ON DELETE CASCADE)
```

In this database the Users table is the table that all the other relations revolve around by at most two degrees of separation. The primary key must exist so there is a not null constraint. There is a NOT NULL UNIQUE constraint on email, because each uid must have a single email address, which is the only non-optional piece of information required for each user. There is also a default option on the profile picture since it is an optional field, but required for the app display.

Albums and Photos both have ON DELETE CASCADE constraints due to the fact that albums should be deleted if the user that created it is deleted, and a photo should be deleted if the album it is in is deleted. Tags have ON DELETE CASCADE for photos that are deleted, and Comments have ON DELETE CASCADE for the user that made the comment.