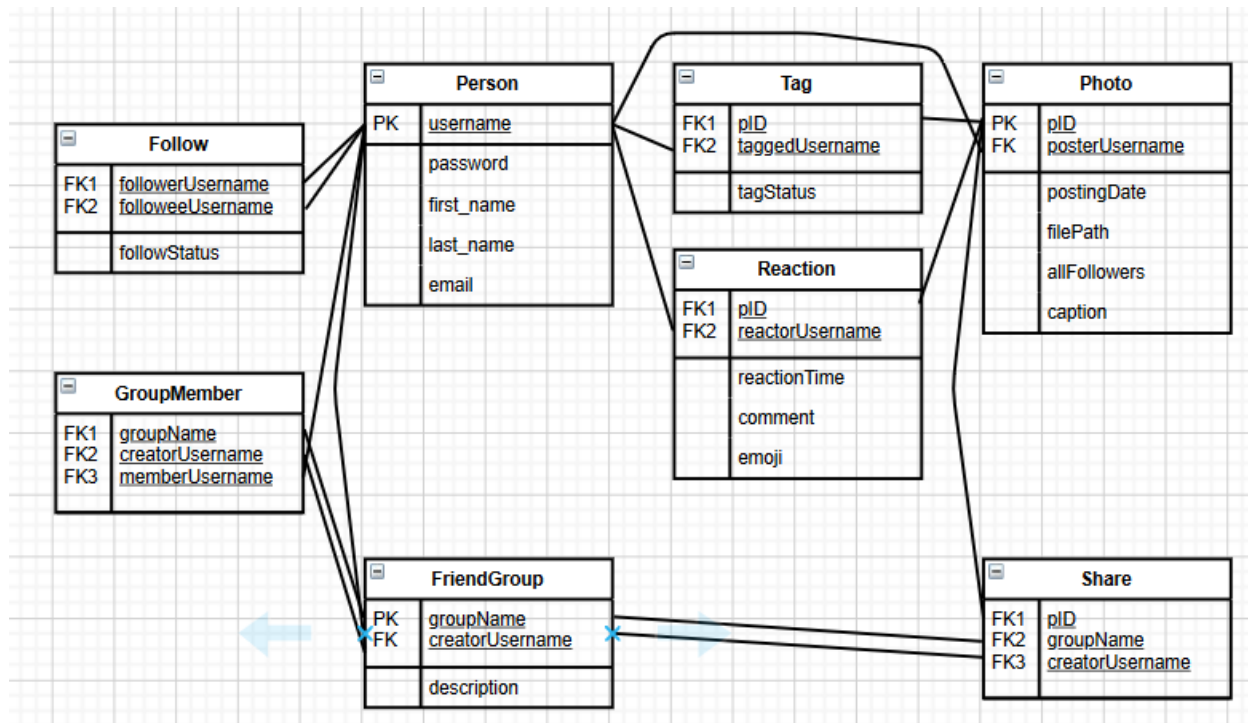


A:



B:

create table Person

```

(username VARCHAR(20),
password  VARCHAR(20),
first_name VARCHAR(20),
last_name VARCHAR(20),
email     VARCHAR(20),

```

```

primary key(username)
);

```

create table Photo

```

(pID          INT,
posterUsername VARCHAR(20),
postingDate   DATETIME,
filePath      VARCHAR(20),
allFollowers  BOOLEAN,
caption       VARCHAR(20),

```

```

primary key(pID,posterUsername),

```

```
foreign key(posterUsername)
    references Person(username)
);
```

```
create table FriendGroup
    (groupName VARCHAR(20),
    creatorUsername VARCHAR(20),
    description VARCHAR(20),

    primary key(groupName,creatorUsername),

    foreign key(creatorUsername)
        references Person(username)
    );
```

```
create table Follow
    (followerUsername VARCHAR(20),
    followeeUsername VARCHAR(20),
    followStatus BOOLEAN,

    primary key(followerUsername,followeeUsername),

    foreign key(followerUsername)
        references Person(username),

    foreign key(followeeUsername)
        references Person(username)
    );
```

```
create table Tag
    (pID INT,
    taggedUsername VARCHAR(20),
    tagStatus BOOLEAN,

    primary key(pID,taggedUsername),

    foreign key(pID)
        references Photo(pID),

    foreign key(taggedUsername)
        references Person(username)
    );
```

```

create table Reaction
  (pID          INT,
   reactorUsername  VARCHAR(20),
   reactionTime DATETIME,
   comment        VARCHAR(20),
   emoji          VARCHAR(20),

   primary key(pID,reactorUsername),

   foreign key(pID)
     references Photo(pID),

   foreign key(reactorUsername)
     references Person(username)
  );

```

```

create table GroupMember
  (groupName      VARCHAR(20),
   creatorUsername VARCHAR(20),
   memberUsername  VARCHAR(20),

   primary key(groupName,creatorUsername,memberUsername),

   foreign key(groupName,creatorUsername)
     references FriendGroup(groupName,creatorUsername),

   foreign key(memberUsername)
     references Person(username)
  );

```

```

create table Share
  (pID          INT,
   groupName    VARCHAR(20),
   creatorUsername  VARCHAR(20),

   primary key(pID,groupName,creatorUsername),

   foreign key(pID)
     references Photo(pID),

   foreign key(groupName,creatorUsername)
     references FriendGroup(groupName,creatorUsername)
  );

```

C:

```
SELECT DISTINCT pID  
FROM GroupMember NATURAL JOIN FriendGroup NATURAL JOIN Share  
WHERE memberUsername='Ann'
```