|  |  |
| --- | --- |
| **INFO 210 — Database Management Systems Assignment – Milestone 2** |  |

**1. ER diagram modification and description**

# Please submit the modified graph before other modification

**2. Relational Schema**

The following relational schema is presented in bold, and the description of its constraints will be presented in [...] directly below it.

**user (uid: INTEGER, email: CHAR, password: CHAR, profile: CHAR)**

**posts (pid: INTEGER, title: CHAR, content: CHAR, datetime: DATETIME, uid: INTEGER)**

[ uid is the foreign key reference to user and uid is not null. If the user is deleted, the corresponding post would be deleted(uid is cascade)]<--modified here

**comments (cid: INTEGER, content: CHAR, datetime: DATETIME, uid: INTEGER, pid: INTEGER)**

[ Respectively, uid and pid are foreign key reference to user and posts and both are not null. If a post or a user is deleted，respectively, the corresponding comment got deleted(both uid and pid is cascade) ]<--modified here

**admin (uid: INTEGER, permission\_level: INTEGER)**

[if the user which is an administer got deleted, the administer permission in the admin table is also deleted(uid is referenced to users and is on deleted cascade)] <--modified here

**advertisement (id: INTEGER, content: CHAR, uid: INTEGER)**

[ uid is the foreign key reference to admin. (on deleted no action)] <--modified here

**categories (cat\_id: INTEGER, cat\_name: CHAR, cat\_desc: CHAR)**

**manage (uid: INTEGER, cid: INTEGER)**

[please add(uid and cid is cascade)]<--modified here

**subscribe (uid: INTEGER, cid: INTEGER)**

[please add(uid and cid is cascade)]<--modified here

**classify (pid: INTEGER, cat\_id: INTEGER)**

[ cat\_id is the foreign key reference to categories(please add cascade) ]<--modified here

**groups ( gid: INTEGER, des: CHAR, uid: INTEGER)**

[ uid is the foreign key reference to admin ]

**join ( gid: INTEGER，uid: INTEGER)**

(please add cascade)<--modified here

**announcement (gid: INTEGER, aid: INTEGER, title: CHAR, content: CHAR)**

[ aid is the partial key of announcements and gid is the primary key of groups. The two key combines the primary key of announcements. gid is not null. If a announcement is deleted, delete the corresponding row from the group table( ON DELETE CASCADE ) ]

**3.** **Explanation**

User:

primary key uid is generated by program which is auto increment

One user could owns multiple posts and comments

And

Posts:

pid is generated by program and it is auto increment

One post could only be owned by one user

Comments:

Cid which is the primary key of the table is generated incrementally

One comment could only be owned by one user and be attached to only one post, while a user could add multiple comments and a post could have multiple comments

Subscribe:

Both uid and cid comprise the primary key

One category could be subscribed by multiple user and one user could subscribe multiple categories

Manage:

Both uid and cid comprise the primary key

One administer could manage multiple posts and one post could be managed by multiple administers

Join:

Both gid and uid consist the primary key

Many user could join in one group and a user could join in multiple group

Classify:

Primary key is consist of pid

Multiple posts could be classified under one category while one post could only be classified into one category