

CSC4341 Database Management Systems

Database Integrity

1. Use `mysqldump` command to back up your entire supplier-part-project database into a script file. The syntax of the command is given below. Note that the command should be run from a command-line window or shell, a console window without logging into MySQL database.

```
$ mysqldump -u username DATABASE -p > spj_backup.sql
```

For example (Type the command in single line)

```
-sh-3.2$ mysqldump -u yzhang ZHANG -p > spj_backup.sql
```

2. If you want to back up specific tables, use a command like the following example which backs up tables `s`, `p`, `j`, and `spj` to file named `spj_backup.sql`:

```
-sh-3.2$ mysqldump -u yzhang -p ZHANG s p j spj > spj_backup.sql
```

3. More detailed instructions on backups are given in a separate web page on the course website.

4. Add foreign key referential constraints (ON DELETE CASCADE) to table spj in the backup script file.
5. Run the modified script to re-create tables using the following command:

```
$ mysql DATABASE -u username -p < spj_backup.sql
```

6. Log in MySQL database and test the foreign key constraints by executing the following SQL queries in the order and describe what happens and why.
 - (a) insert into spj values ('S8', 'P1', 'J2', 600);
 - (b) insert into s values ('S8', 'McFadden', 40, 'Fort Worth');
 - (c) select * from s;
 - (d) insert into spj values ('S8', 'P1', 'J2', 600);
 - (e) select * from spj;
 - (f) delete from s where s_num = 'S8';
 - (g) select * from s
 - (h) select * from spj;
7. Work on the following problems 9.5, 9.6, and 9.7 on page 286.
8. Turn printouts of your work in class.