CS 561 Software Engineering

Fall 2017

Database Design Specification

Group Members：

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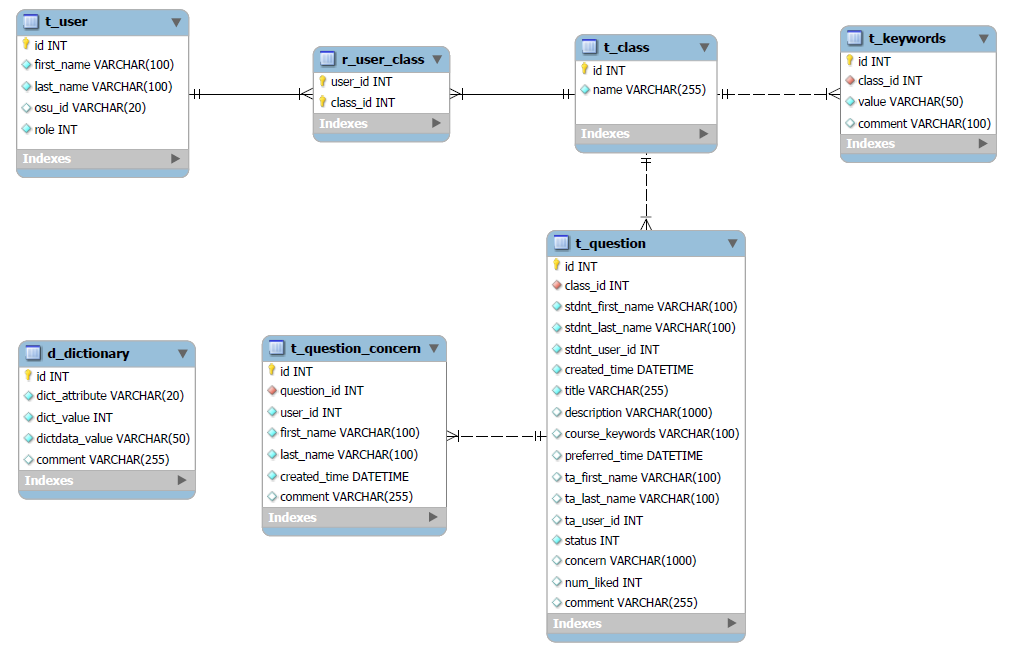
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**Table 0.** Versions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NO. | Version | Date | Owner | Description |
| 1 | 0.1 | 09/30/2017 | Teng Li,Kang Li | First draft |
| 2 | 0.2 | 10/02/2017 | Teng Li, Kang Li | Add ta\_name, ta\_osu\_id in t\_question table, and the data of course\_keywords in t\_dictionary table |
| 3 | 1.0 | 10/03/2017 | Teng Li, Kang Li | 1. Create t\_keywords table  2. Add last\_name and first\_name in t\_user table  3. Add preferred\_time, num\_liked, stdnt\_last\_name stdnt\_first\_name, ta\_last\_name and ta\_first\_name in t\_question table |
| 4 | 1.1 | 10/05/2017 | Teng Li, Kang Li | Add connection example code |
| 5 | 2.0 | 10/10/2017 | Teng Li | 1. Change osu\_id to user\_id in t\_question and t\_question\_concern  2. osu\_id could be NULL in the t\_user |
| 6 | 2.1 | 10/13/2017 | Teng Li | 1. Change Data Type of osu\_id to varchar in t\_user |
| 7 | 2.2 | 10/24/2017 | Kang Li | 1. Change role definition in user table  2. Add role for each class student relationship |

## E-R Diagram



**Figure 1.1** E-R diagram

## Tables

**Table 2.1.** t\_user

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Column Name | Data Type | Not Null | Unique | Comments |
| id | INT(5) | Y | Y | PK |
| first\_name | VARCHAR(100) | Y | N |  |
| last\_name | VARCHAR(100) | Y | N |  |
| osu\_id | VARCHAR(20) | N | Y |  |
| role | INT(2) | Y | N | 0 Student (default)  1 Admin |

**Table 2.2.** t\_class

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Not Null | Comments |
| id | INT(5) | Y | PK |
| name | VARCHAR(255) | Y |  |

**Table 2.3.** r\_user\_class

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Not Null | Comments |
| user\_id | INT(5) | Y | fk\_r\_user\_class\_to\_t\_user |
| class\_id | INT(5) | Y | fk\_r\_user\_class\_to\_t\_class |
| role | INT(5) | Y | 0 Student (default)  1 TA |

Hints: primary key (user\_id, class\_id)

**Table 2.4.** t\_question

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Not Null | Comments |
| id | INT(5) | Y | PK |
| class\_id | INT(5) | Y | fk\_t\_question\_to\_t\_class |
| stdnt\_first\_name | VARCHAR(100) | Y |  |
| stdnt\_last\_name | VARCHAR(100) | Y |  |
| stdnt\_user\_id | INT(10) | Y |  |
| created\_time | Datetime | Y |  |
| title | VARCHAR(100) | Y |  |
| description | VARCHAR(100) | N |  |
| course\_keywords | VARCHAR(100) | N | use “,” |
| preferred\_time | Datetime | N |  |
| ta\_first\_name | VARCHAR(100) | N |  |
| ta\_last\_name | VARCHAR(100) | N |  |
| ta\_user\_id | INT(10) | N |  |
| status | INT(2) | Y | 0 proposed (default)  1 answered  2 deleted  3 signed |
| concern | VARCHAR(100) | N |  |
| num\_liked | INT(3) | Y |  |
| comment | VARCHAR(100) | N |  |

**Table 2.5.** t\_question\_concern

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Not Null | Comments |
| id | INT(5) | Y | PK |
| question\_id | INT(5) | Y | fk\_t\_question\_concern\_to\_t\_question |
| first\_name | VARCHAR(100) | Y |  |
| last\_name | VARCHAR(100) | Y |  |
| user\_id | INT(10) | Y |  |
| created\_time | Datetime | Y |  |
| comment | VARCHAR(100) | N |  |

**Table 2.6.** t\_dictionary

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Not Null | Comments |
| id | INT(5) | Y | PK |
| dict\_attribute | ARCHAR(20) | Y |  |
| dict\_value | INT(2) | Y |  |
| dict\_data | VARCHAR(50) | Y |  |
| comment | VARCHAR(100) | N |  |

**Table 2.7.** t\_keywords

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data Type | Not Null | Comments |
| id | INT(5) | Y | PK |
| class\_id | INT(5) | Y | fk\_t\_keywords\_to\_t\_class |
| value | VARCHAR(50) | Y |  |
| comment | VARCHAR(100) | N |  |

## Dictionary

**Table 3.1.** Initialized data

|  |  |  |  |
| --- | --- | --- | --- |
| dict\_attribute | dict\_value | dict\_data | comment |
| user\_type | 0 | Student |  |
| user\_type | 1 | TA |  |
| question\_status | 0 | proposed |  |
| question\_status | 1 | answered |  |
| question\_status | 2 | deleted |  |
| question\_status | 3 | signed |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Connection Example

**Table 4.1. Connection** **information**

|  |  |
| --- | --- |
| Hostname | oniddb.cws.oregonstate.edu |
| Database Name | *~~%dbname%~~* |
| Username | *~~%username%~~* |
| Password | *~~%Password%~~* |

<?php

$dbhost = 'oniddb.cws.oregonstate.edu';

$dbname = *~~'%dbname%~~*';

$dbuser = '*~~%username%~~*';

$dbpass = '*~~%Password%~~*';

$mysql\_handle = mysql\_connect($dbhost, $dbuser, $dbpass)

or die("Error connecting to database server");

mysql\_select\_db($dbname, $mysql\_handle)

or die("Error selecting database: $dbname");

echo 'Successfully connected to database!';

mysql\_close($mysql\_handle);

?>