CS 561 Software Engineering

Fall 2017

Database Design Specification

Group Members：

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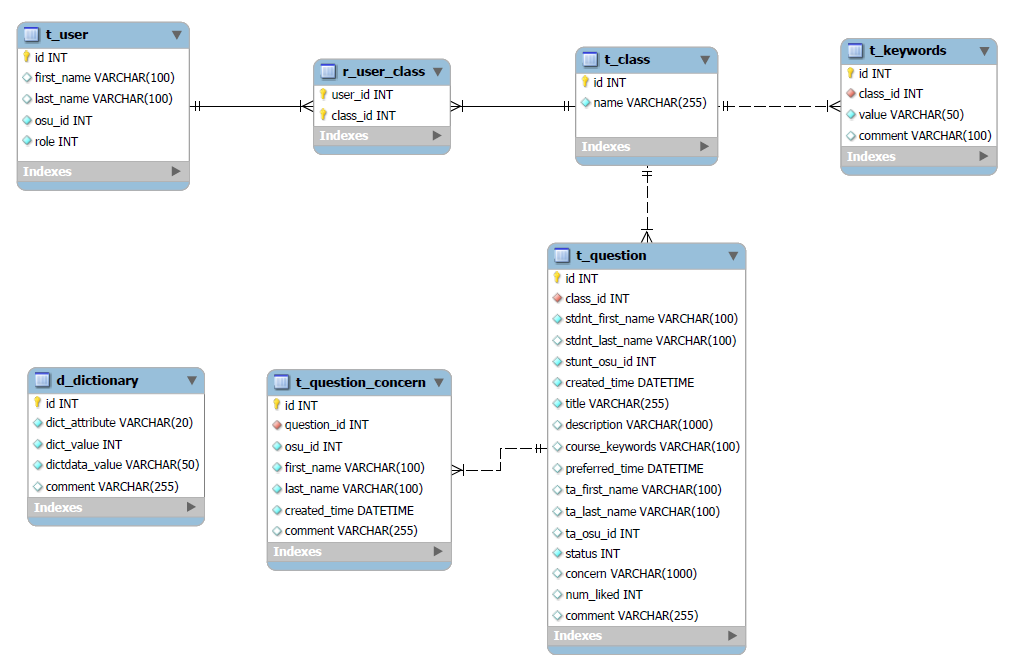
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**Table 0.** Versions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 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 |
|  |  |  |  |  |
|  |  |  |  |  |

## 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) | N | N |  |
| last\_name | VARCHAR(100) | N | N |  |
| osu\_id | INT(10) | Y | Y |  |
| role | INT(2) | Y | N | 0 Student (default )  1 TA |

**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 |

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\_osu\_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\_osu\_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 |  |
| osu\_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 |  |
|  |  |  |  |
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|  |  |  |  |