**Database Proposal**

**1 Team Name:** Stevensing

**2 Team Members:** Ruo Jia, Xiao Han, Zhi Qian

**3 Tables:**

**users**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| user\_id | int | PK | AI |
| username | varchar(40) |  | [\*@stevens.edu](mailto:*@stevens.edu) |
| password | varchar(40) |  | encrypted by SHA1 |
| security\_question | varchar(200) |  | encrypted by SHA1,  user-defined question |
| security\_answer | varchar(200) |  | encrypted by SHA1,  user-defined answer |
| status | tinyint | null, default 0 | 0:pending;  1:confirmed;  2:admin |

**profiles**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint | Description |
| user\_id | int | PK,  FK(users.user\_id) |  |
| firstname | varchar(40) |  |  |
| middlename | varchar(40) | null |  |
| lastname | varchar(40) |  |  |
| gender | char(1) |  | M or F |
| dob | date |  | May provide a way to hide year for female on webpage |
| major | varchar(6) |  |  |
| degree | varchar(40) |  |  |
| entry\_year | smallint |  |  |
| entry\_semester | tinyint |  | 1: Fall; 2: Spring |
| picture\_id | int | null,  FK(pictures.picture\_id) |  |

**pictures**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| picture\_id | int | PK | AI |
| url | varchar(2048) |  |  |
| title | varchar(100) | null |  |

**friend\_list**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| user\_id | int | PK, FK(users.user\_id) |  |
| friend\_id | int | PK, FK(users.user\_id) |  |
| timestamp | timestamp |  | last changed status |
| status | tinyint |  | 1:Requesting;  2:Accepted; |

**courses**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| course\_id | int | PK | AI |
| department | varchar(3) |  | eg: CS |
| number | smallint |  | eg: 546 |
| name | varchar(100) |  | eg: Web Programmin |
| description | varchar(6000) | null |  |
| professor | varchar(100) | null |  |

**course\_list**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| course\_id | int | PK,  FK(courses.course\_id) |  |
| user\_id | int | PK,  FK(users.user\_id) |  |
| role | tinyint |  | 1: student;  2: admin |

**reviews**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| review\_id | int | PK | AI |
| course\_id | int | FK(courses.course\_id) |  |
| user\_id | int | FK(users.user\_id) |  |
| score | tinyint |  | [0, 5] for stars |
| content | varchar(3000) |  |  |
| timestamp | timestamp |  |  |

**resources**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| resource\_id | int | PK | AI |
| course\_id | int | FK(courses.course\_id) |  |
| user\_id | int | FK(users.user\_id) |  |
| url | varchar(2048) |  |  |
| title | varchar(100) |  |  |
| catalog | varchar(20) |  |  |
| timestamp | timestamp |  |  |

**statuses**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| status\_id | int | PK | AI |
| entity\_id | int | FK(courses.course\_id or users.user\_id) | rely on entity\_type |
| entity\_type | tinyint |  | 1: user\_id;  2: course\_id |
| content | varchar(600) |  |  |
| timestamp | timestamp |  |  |

**blogs**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| blog\_id | int | PK | AI |
| user\_id | int | FK(users.user\_id) |  |
| title | varchar(200) |  |  |
| content | text |  |  |
| timestamp | timestamp |  |  |

**events**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| event\_id | int | PK | AI |
| entity\_id | int | FK(courses.course\_id or users.user\_id) | rely on entity\_type |
| entity\_type | tinyint |  | 1: user\_id;  2: course\_id |
| title | varchar(200) |  |  |
| content | varchar(600) |  |  |
| starttime | timestamp |  |  |
| endtime | timestamp | null |  |
| number | smallint | null | number of people can attend this event |
| timestamp | timestamp |  |  |

**event\_list**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| event\_id | int | PK |  |
| user\_id | int | PK,  FK(users.user\_id) |  |

**comments**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Type | Restraint  (Default not null) | Description |
| comment\_id | int | PK | AI |
| feed\_id | int | FK(statuses.status\_id or blogs.blog\_id or events.event\_id or resourses.resource\_id) | rely on entity\_type |
| feed\_type | tinyint |  | 1: status\_id;  2: blog\_id;  3: event\_id;  4: resource\_id |
| user\_id | int | FK(users.user\_id) |  |
| content | varchar(600) |  |  |
| timestamp | timestamp |  |  |