# Entities

## UserInfo

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Type** | **Properties** | **Description** |
| userID | integer | PK, autoincrement |  |
| display\_name | char(50) | not null |  |
| avatar | text |  |  |
| gender | char(10) |  |  |
| birthday | date |  |  |
| age | int |  |  |
| occupation | char(30) |  |  |
| education | char(30) |  |  |
| location\_ | char(30) |  |  |

## Registration

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Type** | **Properties** | **Description** |
| user\_account | char(30) | PK |  |
| userID | int | FK rf userInfo(userID) |  |
| password\_ | char(30) | not null |  |

## Posts

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Type** | **Properties** | **Description** |
| postID | integer | PK |  |
| userID | int | FK rf userInfo(userID) |  |
| title | text |  |  |
| content | text |  |  |
| post\_time | datetime |  |  |

## Likes

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Type** | **Properties** | **Description** |
| postID | int | FK rf userInfo(userID) |  |
| userID | int | FK rf posts(postID) |  |

## Comments

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Type** | **Properties** | **Description** |
| postID | int | FK rf posts(postID) |  |
| userID | int | FK rf userInfo(userID) |  |
| content | text |  |  |
| comment\_time | datetime |  |  |

## UserRelationship

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Type** | **Properties** | **Description** |
| followerID | int |  |  |
| followingID | int |  |  |
| closeness\_rate | float |  | a value description about the closeness between two users |

## Timeline

|  |  |  |  |
| --- | --- | --- | --- |
| **Attribute** | **Type** | **Properties** | **Description** |
| userID | int |  |  |
| postID | int |  |  |
| post\_userID | int |  |  |
| post\_time | datetime |  |  |
| is\_notified | boolean |  | if the post is added into the timeline for the first time, the flag is True. |

# Relations

1. timeline-UserInfo: many to one (based on userID)
2. timeline-posts: many to one (based on postID)
3. timeline-UserInfo: many to one (based on post\_userID)
4. userRelationship-UserInfo: many to one (based on followerID)
5. userRelationship-UserInfo: many to one (based on followingID)
6. comments-UserInfo: many to one (based on userID)
7. comments-posts: many to one (based on postID)
8. likes-UserInfo: many to one (based on userID)
9. likes-posts: many to one (based on postID)
10. posts-UserInfo: many to one (based on userID)
11. registration-UserInfo: many to one (based on userID)

# ER Diagram

