News

News
- NewsID INT
- CafeID INT
- Heading VARCHAR(45)
- text VARCHAR(1000)
- Date DATE
- Indexes

NewsLike
- UserID INT
- NewsID INT
- Indexes

Users

MyBrew
- MyBrewID INT
- UserID INT
- DrinkID INT
- AddTime TIMESTAMP
- DeleteTime TIMESTAMP
- Indexes

User
- UserID INT
- LoginName VARCHAR(45)
- Password VARCHAR(64)
- ScreenName VARCHAR(20)
- Photo TINYBLOB
- Longitude DECIMAL(3,4)
- Latitude DECIMAL(3,4)
- Indexes

Social Graph

Follow
- FollowID INT
- UserID INT
- FollowingUserID INT
- FollowTime TIMESTAMP
- Unfollowtime TIMESTAMP
- Indexes

Cafe

Menu
- DrinkID INT
- CafeID INT
- Price DECIMAL
- Indexes

Drink
- DrinkID INT
- DrinkName VARCHAR(45)
- Indexes

OpeningHour
- CafeID INT
- Monday VARCHAR(45)
- Tuesday VARCHAR(45)
- Wednesday VARCHAR(45)
- Thursday VARCHAR(45)
- Friday VARCHAR(45)
- Saturday VARCHAR(45)
- Sunday VARCHAR(45)
- Indexes

Cafe
- CafeID INT
- Name VARCHAR(45)
- Address VARCHAR(45)
- Latitude DECIMAL(3,4)
- Longitude DECIMAL(3,4)
- AverageRating FLOAT
- Indexes

Checkin

Checkin
- CheckinID INT
- UserID INT
- CafeID INT
- ChinkinTime TIMESTAMP
- Indexes

TagUser
- CheckinID INT
- UserID INT
- Indexes

Location

LocationsRecords
- LocationsRecordsID INT
- UserID INT
- Latitude DECIMAL(3,4)
- Longitude DECIMAL(3,4)
- AddTime TIMESTAMP
- Indexes

Ratings, photos and favorite

Favorite
- FavoriteID INT
- UserID INT
- CafeID INT
- AddTime TIMESTAMP
- DeleteTime TIMESTAMP
- Indexes

RatingPhotos
- CafeID INT
- UserID INT
- RatingPhoto TINYBLOB
- Indexes

Rate
- CafeID INT
- UserID INT
- StarNumber INT
- Text TEXT(20)
- AddTime TIMESTAMP
- Indexes

Timeline

TimeLineLike
- TimeLineID INT
- UserID INT
- Indexes

TimeLineComment
- TimeLineCommentID INT
- TimeLineID INT
- UserID INT
- Text VARCHAR(1000)
- Indexes

TimeLine
- TimeLineID INT
- User_UserID INT
- Text VARCHAR(1000)
- Photo BLOB
- PostTime TIMESTAMP
- NumberOfLike INT
- Indexes

List of entities

Entities	Entity Type	Primary Key	# Attributes
USER	independent	UserID	7
MYBREW	independent	MyBrewID	5
CAFÉ	independent	CafeID	6
OPENING_HOUR	dependent	CafeID	8
MENU	dependent	DrinkID,CafeID	3
DRINK	independent	DrinkID	2
RATING	dependent	CafeID,UserID	5
RATING_PHOTOS	dependent	CafeID,UserID	3
FAVORITE	independent	FavoriteID	5
CHECKIN	independent	CheckInID	4
TIMELINE	independent	TimeLineID	6
TIMELINELIKE	dependent	TimeLineID,UserID	2
TIMELINE_COMMENT	independent	TimeLineCommentID	4
FOLLOW	independent	FollowID	5
LOCATION_RECORD	independent	LocationRecordID	5
NEWS	independent	NewsID	5
NEWS_LIKE	dependent	UserID,NewsID	2

Entity 'USER'

Description

This entity is designed to store customers' personal information as well as their current location.

Key	Attribute	Data Type	Not Null	Unique	Description
PK	UserID	INT	YES	YES	This is the primary-key of 'USER', unique in the lifetime of this database.
	LoginName	VARCHAR(45)	YES	YES	Users use their e-mail address as the login name, additionally, each login name is unique.
	Password	VARCHAR(64)	YES	YES	The password is necessary to login customers' account and it is about 64 characters. The password may include following character types: English alphabet uppercase letter, English alphabet lowercase letter, Decimal digit number and Special characters.
	ScreenName	VARCHAR(20)	YES	YES	The name of customers' use on app. A single string less than 20 characters long which other users can see. E.g. 'angrybirds'.
	Photo	TINYBLOB	NO	NO	Optionally, customers can upload any pictures as their profile photo.
	Longitude	DECIAML(3,4)	NO	NO	Present the current longitude of the users, however, this attribute can be null without users' login.
	Latitude	DECIMAL(3,4)	NO	NO	Present the current latitude of the users, however, this attribute can be null without users' login.

Entity 'CAFE'

Description

This entity is designed to store cafes' names, addresses and map location, and the average rating can also be included.

Key	Attribute	Data Type	Not Null	Unique	Description
PK	CafeID	INT	YES	YES	This is the primary-key of 'CAFE', unique in the lifetime of this database.
	Name	VARCHAR(45)	YES	YES	A single attribute to hold the Cafes name. E.g. 'Moon Stone Cafe'.
	Address	VARCHAR(45)	YES	YES	The name of house, street or road which present cafes' location. E.g. 'Moon Stone Cafe' is located at '300 La Trobe St'.
	Latitude	DECIMAL(3,4)	YES	NO	Use a precision of 4 decimal places to record cafes' latitude. E.g. 'Moon Stone Cafe' is at latitude '-36,6880'.
	Longitude	DECIMAL(3,4)	YES	NO	Use a precision of 4 decimal places to record cafes' longitude. E.g. 'Moon Stone Cafe' is at latitude '143,8520'.
	AverageRating	FLOAT	NO	NO	The Average scoring of Cafe. This can be calculated by the number of stars rated by each user. This data will be refreshed every time once a new user rates the café.

Entity 'TIMELINE'

Description

This entity is designed to store social media-style timeline information, to which users can post text and photos. It allows users reading their newsfeed to sort the list of posts, either by the time each post was entered, or by the number of likes each post has received.

Key	Attribute	Data Type	Not Null	Unique	Description
PK	TimeLineID	INT	YES	YES	This is the primary-key of 'TIMELINE', unique in the lifetime of this database.
	UserID	INT	YES	NO	A foreign key, coming from the entity 'USER'.
	Text	VARCHAR(1000)	YES	NO	Short piece of text (up to 1000 characters) of a post. The content can include customers' feedback of a Café.
	Photo	BLOB	NO	NO	Users can post photos optionally accompanying with the text.
	PostTime	TIMESTAMP	YES	NO	The actual time period for which the text has been posted. This is to record the time of each post.
	NumberOfLike	INT	NO	NO	A number used to present how many times a post on app received a 'Like'.

Work Breakdown

Work	Breakdown
ER-diagram	Design by all 3 group members
List of entities	Design by all 3 group members
Entity 'USER' dictionary	Design by Wenshuai Zhou
Entity 'CAFE' dictionary	Design by Longxuan Xu
Entity 'TIMELINE' dictionary	Design by Guoning Qi