Data Design

StudyBoard

Team Members

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StudyBoard Feature Overview

1. Users can sign in / log in using a Google account.
2. Users can set their nickname and the list of tags to follow.
3. Users can post a question with images attached.
4. Users can edit or delete their own questions.
5. Users can share a question.
6. Users can like a question.
7. Users can report a question.
8. Users can reply to questions.
9. Users can reply to replies.
10. Users can like a reply.
11. Users can report a reply.
12. Users can set a list of tags to follow.
13. Users can follow other users.
14. Users receive ranks based on the number of likes and reports their posts receive.
15. Users are automatically promoted to endorsed status when they reach a certain rank.
16. Users can view the list of users with the highest ranking.
17. Users can get a personalised feed of questions based on tags and users they follow.
18. Users can view the replies posted to a question.
19. Users can view replies sorted by the number of likes, by the date and time posted, and by the ranking of the user.
20. Users can search for questions and users on the unified search bar.
21. Users can view a preview of the search results when searching on the unified search bar.
22. Users can view their search history in the unified search bar.
23. Users can receive notifications on any events related to the user such as a new reply to the user's post.
24. Users can view and change their nickname and the list of tags that they follow.
25. Users can view the list of questions they posted, questions they replied to, and questions they shared.
26. Users can view the list of users they follow and the list of followers.
27. Moderators can view the list of posts that have been reported and decide whether to remove the post or not.
28. Moderators can view the list of users whose posts have been reported the most and ban the respective users.

2. Data Table Schema

Notification	
notification_id	INTEGER
user_id	INTEGER
notification_text	VARCHAR
notification_date	DATETIME
PRIMARY KEY	notification_id
FOREIGN KEY	user_id REFERENCES User(user_id)

User	
user_id	INTEGER
user_email	VARCHAR
user_nickname	VARCHAR
user_is_endorsed	BOOLEAN
user_is_mod	BOOLEAN
user_flags_received	INTEGER
user_likes_received	INTEGER
PRIMARY KEY	user_id

Follow	
user_id	INTEGER
follower_id	INTEGER
PRIMARY KEY	(user_id, follower_id)
FOREIGN KEY	user_id REFERENCES User(user_id) follower_id REFERENCES User(user_id)

Tag	
tag_id	INTEGER
tag_name	VARCHAR
PRIMARY KEY	tag_id

User_Tag	
user_id	INTEGER
tag_id	INTEGER
PRIMARY KEY	(user_id, tag_id)
FOREIGN KEY	user_id REFERENCES User(user_id) tag_id REFERENCES Tag(tag_id)

Post_Tag	
post_id	INTEGER
tag_id	INTEGER
PRIMARY KEY	(post_id, tag_id)
FOREIGN KEY	post_id REFERENCES Post(post_id) tag_id REFERENCES Tag(tag_id)

Post	
post_id	INTEGER
user_id	INTEGER
post_text	VARCHAR
post_like_count	INTEGER
post_date	DATETIME
PRIMARY KEY	post_id
FOREIGN KEY	user_id REFERENCES User(user_id)

Post_Image	
post_id	INTEGER
image_id	INTEGER
image_url	VARCHAR
PRIMARY KEY	(post_id, image_id)
FOREIGN KEY	Post_id REFERENCES Post(post_id)

User_Post_Like	
user_id	INTEGER
post_id	INTEGER
PRIMARY KEY	(user_id, post_id)
FOREIGN KEY	user_id REFERENCES User(user_id) post_id REFERENCES Post(post_id)

Post_Report	
report_id	INTEGER
post_id	INTEGER
user_id	report_id
report_text	VARCHAR
report_date	DATETIME
PRIMARY KEY	report_id
FOREIGN KEY	post_id REFERENCES Post(post_id) user_id REFERENCES User(user_id)

Reply	
reply_id	INTEGER
user_id	INTEGER
reply_text	VARCHAR
reply_like_count	INTEGER
reply_date	DATETIME
PRIMARY KEY	reply_id
FOREIGN KEY	user_id REFERENCES User(user_id)

Reply_To_Post	
post_id	INTEGER
reply_id	INTEGER
PRIMARY KEY	(post_id, reply_id)

FOREIGN KEY	reply_id REFERENCES Reply(reply_id) post_id REFERENCES Post(post_id)

Reply_To_Reply	
source_id	INTEGER
reply_id	INTEGER
PRIMARY KEY	(source_id, reply_id)
FOREIGN KEY	source_id REFERENCES Reply(reply_id) reply_id REFERENCES Reply(reply_id)

User_Reply_Like	
user_id	INTEGER
reply_id	INTEGER
PRIMARY KEY	(user_id, post_id)
FOREIGN KEY	user_id REFERENCES User(user_id) reply_id REFERENCES Reply(reply_id)

Reply_Report	
report_id	INTEGER
reply_id	INTEGER
user_id	report_id
report_text	VARCHAR
report_date	DATETIME
FOREIGN KEY	reply_id REFERENCES Reply(reply_id) user_id REFERENCES User(user_id)

Shared_Question	
user_id	INTEGER
post_id	INTEGER
PRIMARY KEY	(user_id, post_id)
FOREIGN KEY	user_id REFERENCES User(user_id) post_id REFERENCES Post(post_id)

Search_History	
search_id	INTEGER
user_id	INTEGER
search_text	VARCHAR
search_time	DATETIME
PRIMARY KEY	search_id
FOREIGN KEY	user_id REFERENCES User(user_id)

Blacklisted_User	
user_id	INTEGER
PRIMARY KEY	user_id
FOREIGN KEY	user_id REFERENCES User(user_id)

3. Contributions

Contributions Made By		
Hawon Park	**Jeong Ho Shin**	**Pyungkang Hong**
Data Views		Web View NextJS Deployment
Research on MySql vs Sequelize	Schema Design	
Schema Optimization		
Web View Spell Check / UI feedback		