Disqus | Project Report

Group Number: 8



**Database**

**Management**

**Systems**

# Project Report

End Semester Project Title: Disqus

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# 1. Introduction:

## 1.1 Purpose

Mainly, this project is intended for educational purposes. The goal of this project is to practice the rules and architecture of database as well as to practice the rules of android development so as to gain understanding about real-world applications and their database structure.

## 1.2 Project Scope

This application is generally intended for developers and programming community so that they can interact with each other remotely and discuss their queries as well as to share their ideas*.*

# 2. System Features

## 2.1 Requirement 1:

* This application should consist of a login and Sign Up Page. Sign up is done using PHP login page and token ID obtained from API is stored in database.

* After login the user is shown some tags according to his interests and then threads related to his selected tags is shown on his feed. A tag actually describes the category

* If a user does not select any categories in the beginning, then he she is shown randomized feed. User is still able to add categories later on and hence filter his field according to his interests.

## 2.2 Requirement 2:

* There are two types of User. i.e. Regular User and Admin User. A user has a unique ID, location, Name, Profile Image URL. A user can up vote or down vote any post. A user is registered with a unique token and have account data store in the database.

* Regular User is able to create as many threads as want about any topic but a user can create at most only one post in a single day. A thread consists of text, image and Link to any other related website. A user can edit or delete his thread.

* A user can up vote and down vote on any thread or any comment at most once. The owner reputation is increased by one if anyone up votes his comment but in case the owner of the post up vote it then it will be increase by 5.

* A user can comment on any thread including his own. A user can also reply to any comment on any thread.

## 2.3 Requirement 3:

* Admin can perform all the tasks that a normal user can perform. In addition to that an admin can delete any post that contains any irrelevant content.

* Admin can also restrict any user’s account if he found the content of the thread irrelevant. Also he has the authority to again activate the account of the user.

* Admin can also suggest an edit to a thread. If the owner of the thread accepts it then the content of the thread will be changed.

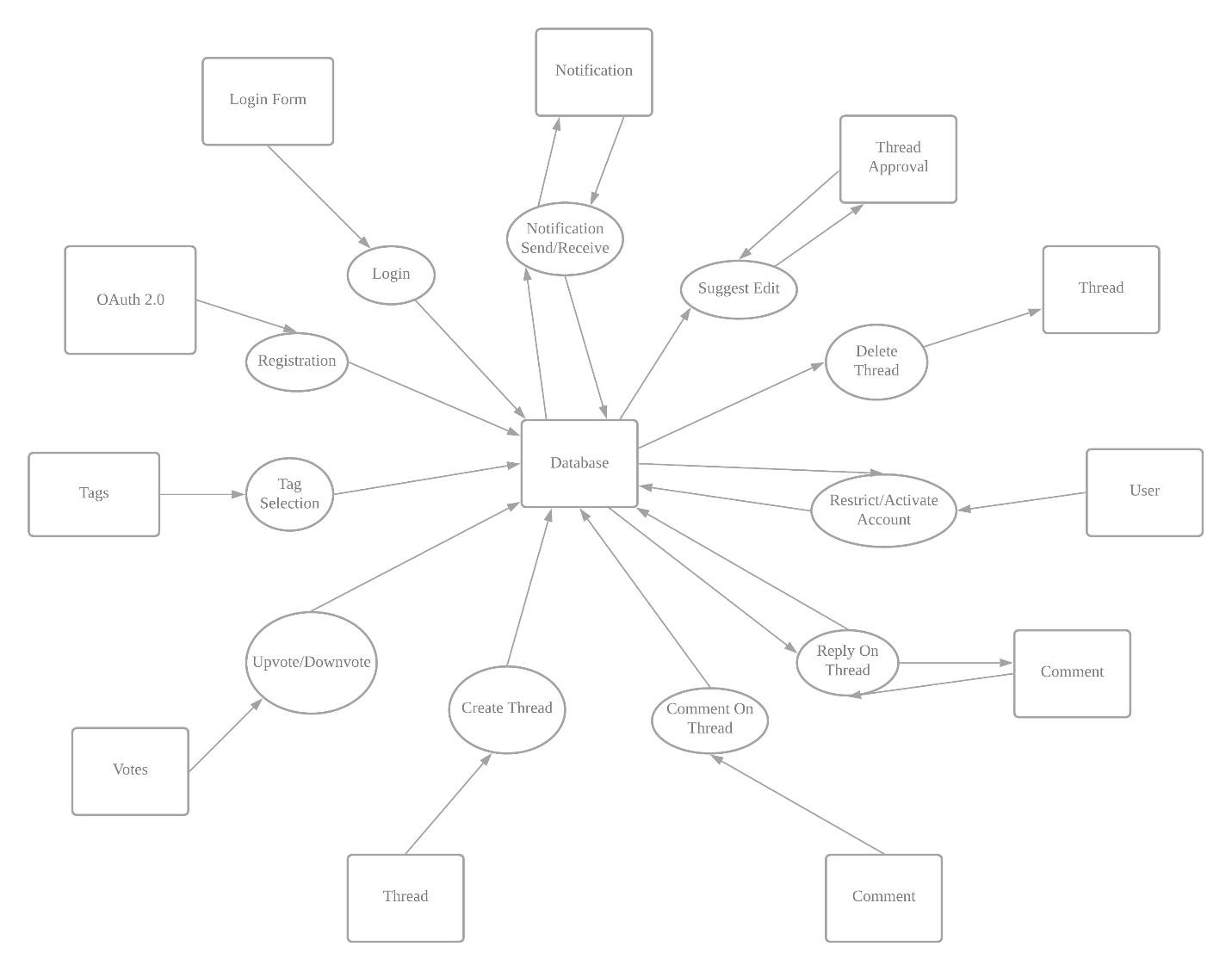
## 2.4 Requirement 4:

* User can receive notifications related to only his thread. User can receive notification of reaction on his post. User can receive notification of any comment on his thread. User can receive notification of any reply on his comment.

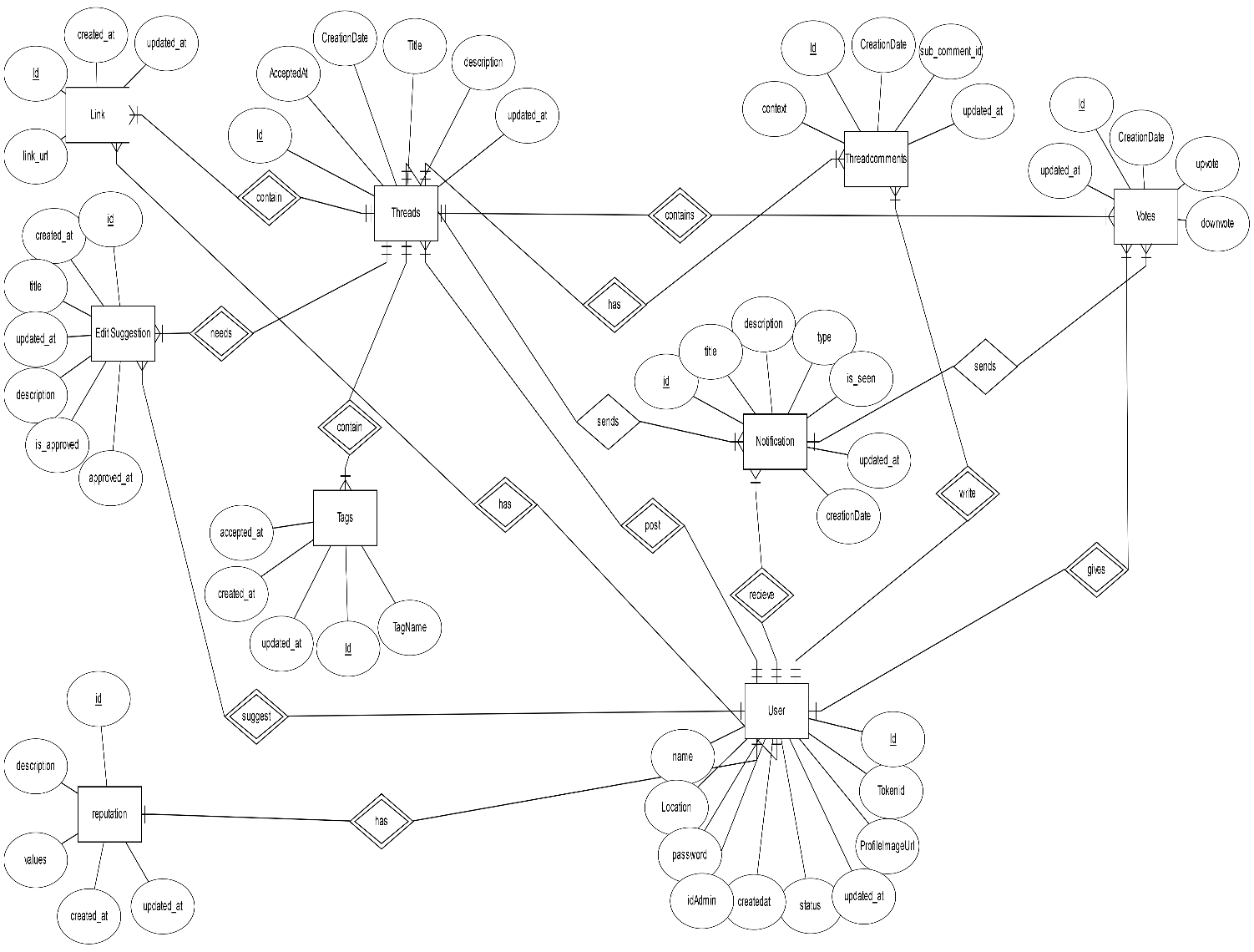
**3.**

**I**

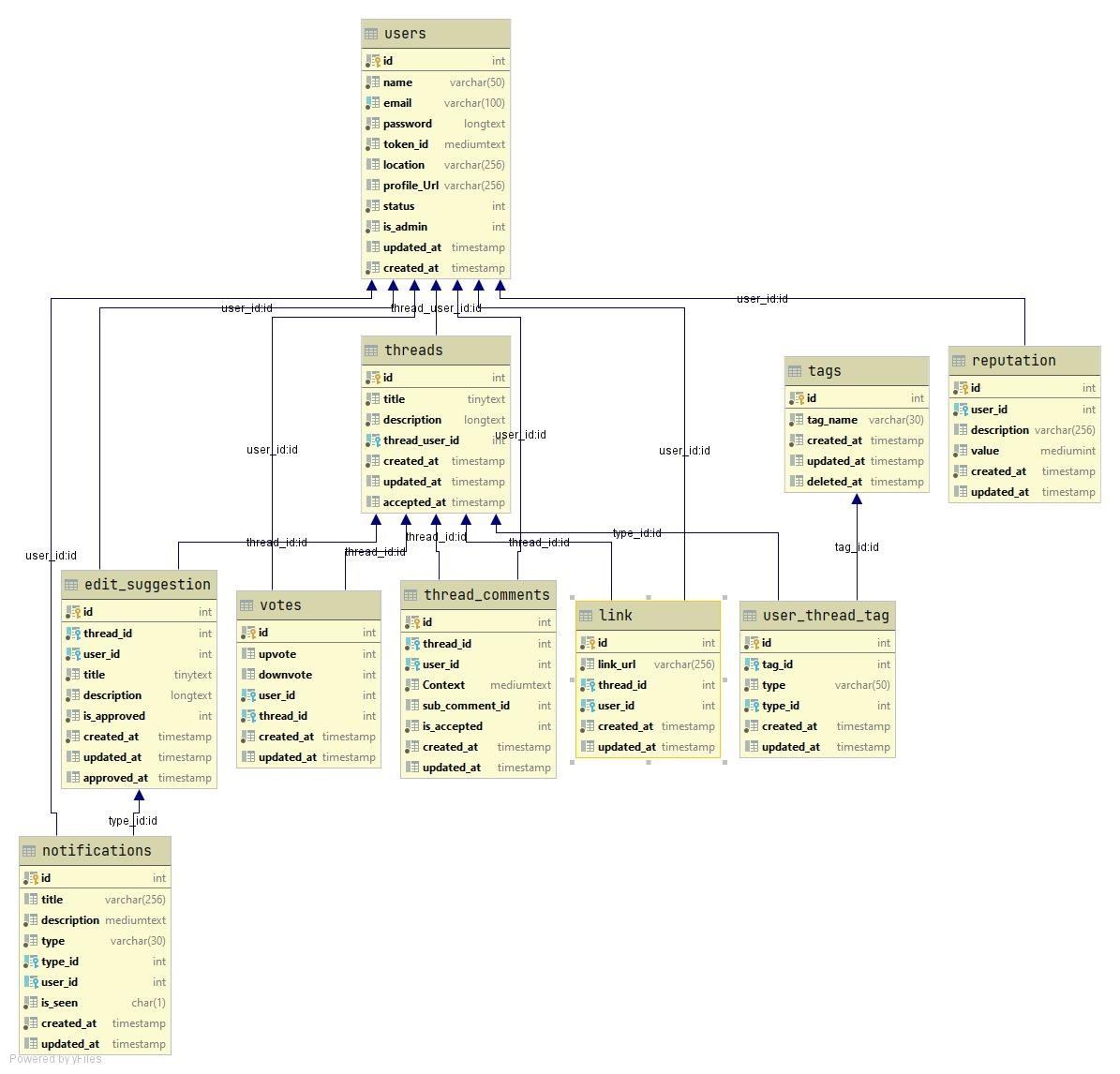
**information Flow:**



# 4. EER Diagram:



# 5. Relational Schema:



# 6. SQL Queries for Creation of Tables and Constrains:

## 6.1 Users Table:

create table users

(

id int auto\_increment primary key,

name varchar(50) not null, email varchar(100) not null, password longtext not null, token\_id mediumtext not null, location varchar(256) null, profile\_Url varchar(256) null, status int default 0 not null, is\_admin int default 0 not null, updated\_at timestamp null, created\_at timestamp default *CURRENT\_TIMESTAMP* not null, constraint users\_email\_uindex unique (email)

);

## 6.2 Tags Table:

create table tags

(

id int auto\_increment primary key,

tag\_name varchar(30) not null, created\_at timestamp default *CURRENT\_TIMESTAMP* not null, updated\_at timestamp null, deleted\_at timestamp null );

## 6.3 Reputation Table:

create table reputation

( id int auto\_increment primary key,

user\_id int not null, description varchar(256) null, value mediumint not null, created\_at timestamp default *CURRENT\_TIMESTAMP* not null, updated\_at timestamp null, constraint reputation\_users\_\_fk

foreign key (user\_id) references users (id) on update cascade on delete cascade );

## 6.4 Threads Table:

create table threads

(

id int auto\_increment primary key,

title tinytext not null, description longtext not null, thread\_user\_id int not null, created\_at timestamp default *CURRENT\_TIMESTAMP* not null, updated\_at timestamp null, accepted\_at timestamp null, constraint user\_id

foreign key (thread\_user\_id) references users (id) on update cascade on delete cascade

);

## 6.5 Edit Suggestion Table:

create table edit\_suggestion

(

id int auto\_increment primary key,

thread\_id int not null, user\_id int not null, title tinytext not null, description longtext not null, is\_approved int default 0 not null, created\_at timestamp default *CURRENT\_TIMESTAMP* not null, updated\_at timestamp null, approved\_at timestamp null, constraint edit\_suggestion\_threads\_\_fk foreign key (thread\_id) references threads (id) on update cascade on delete cascade, constraint edit\_suggestion\_users\_\_fk foreign key (user\_id) references users (id) on update cascade on delete cascade

);

## 6.6 Link Table:

create table link

( id int auto\_increment primary key,

link\_url varchar(256) not null, thread\_id int not null,

user\_id int not null, created\_at timestamp default *CURRENT\_TIMESTAMP* not null, updated\_at timestamp null, constraint link\_threads\_\_fk

foreign key (thread\_id) references threads (id) on update cascade on delete cascade, constraint link\_users\_\_fk

foreign key (user\_id) references users (id) on update cascade on delete cascade

);

## 6.7 Thread Comments Table:

create table thread\_comments

(

id int auto\_increment primary key,

thread\_id int not null, user\_id int not null, Context mediumtext not null, sub\_comment\_id int null, updated\_at timestamp null, created\_at timestamp default *CURRENT\_TIMESTAMP* not null, constraint thread\_comments\_threads\_\_fk foreign key (thread\_id) references threads (id) on update cascade on delete cascade, constraint thread\_comments\_users\_\_fk foreign key (user\_id) references users (id) on update cascade on delete cascade

);

## 6.8 User Thread Tag Table:

create table user\_thread\_tag

( id int auto\_increment primary key,

tag\_id int not null, type varchar(50) not null, type\_id int not null, created\_at timestamp default *CURRENT\_TIMESTAMP* not null, updated\_at timestamp null, constraint user\_thread\_tag\_tags\_\_fk foreign key (tag\_id) references tags (id) on update cascade on delete cascade, constraint user\_thread\_tag\_users\_\_fk foreign key (type\_id) references users (id) on update cascade on delete cascade, constraint user\_thread\_tag\_threads\_\_fk

foreign key (type\_id) references threads (id) on update cascade on delete cascade

);

## 6.9 Votes Table:

create table votes

(

id int auto\_increment primary key,

upvote int null, downvote int null, user\_id int not null, thread\_id int not null, created\_at timestamp default *CURRENT\_TIMESTAMP* not null, updated\_at timestamp null, constraint votes\_threads\_\_fk

foreign key (thread\_id) references threads (id) on update cascade on delete cascade, constraint votes\_users\_\_fk

foreign key (user\_id) references users (id) on update cascade on delete cascade

);

## 6.10 Notification Table:

create table notifications

(

id int auto\_increment primary key,

title varchar(256) null, description mediumtext not null, type tinyint not null, type\_id int not null, user\_id int null, is\_seen char default '0' not null, created\_at timestamp default *CURRENT\_TIMESTAMP* not null, updated\_at timestamp null, constraint notifications\_edit\_suggest\_\_fk foreign key (type\_id) references edit\_suggestion (id) on update cascade on delete cascade, constraint notifications\_repu\_\_fk

foreign key (type\_id) references reputation (id) on update cascade on delete cascade, constraint notifications\_thread\_comment\_\_fk foreign key (type\_id) references thread\_comments (id) on update cascade on delete cascade, constraint notifications\_threads\_\_fk foreign key (type\_id) references threads (id) on update cascade on delete cascade, constraint notifications\_users\_\_fk

foreign key (user\_id) references users (id) on update cascade on delete cascade, constraint notifications\_vote\_\_fk

foreign key (type\_id) references votes (id) on update cascade on delete cascade );

# 7. SQL Queries for Data Insertion:

## 7.1 Tags Table:

insert into disqus.tags (id, tag\_name, created\_at, updated\_at, deleted\_at) values (1, 'node', '2021-01-01 18:28:33', null, null), (2, 'c++', '2021-01-01 18:28:33', null, null),

(3, 'cpp', '2021-01-01 18:28:33', null, null),

(4, 'console resources', '2021-01-01 18:28:33', null, null),

(5, 'error 520', '2021-01-01 18:28:33', null, null),

(6, 'error 404', '2021-01-01 18:28:33', null, null),

(7, 'Terminal Emulator', '2021-01-01 18:28:33', null, null),

(8, 'priority problem', '2021-01-01 18:28:33', null, null),

(9, 'react', '2021-01-01 18:28:33', null, null),

(10, 'kotlin', '2021-01-01 18:28:33', null, null),

(11, 'java', '2021-01-01 18:28:33', null, null),

(12, 'react native', '2021-01-01 18:28:33', null, null);

## 7.2 Reputation Table:

insert into disqus.reputation (id, user\_id, description, value, created\_at, updated\_at)

values (1, 1, 'Trusted User', 30, '2021-01-02 11:12:28', null),

(2, 2, 'Established User', 11, '2021-01-02 11:12:28', null),

(3, 5, 'Access to Site Analytics', 100, '2021-01-02 11:12:28', null),

(4, 4, 'Unrestricted User', 70, '2021-01-02 11:12:28', null),

(5, 6, 'Trusted User', 30, '2021-01-02 11:12:28', null),

(6, 7, 'Established User', 11, '2021-01-02 11:12:28', null),

(7, 8, 'Access to Site Analytics', 100, '2021-01-02 11:12:28', null),

(8, 9, 'Unrestricted User', 70, '2021-01-02 11:12:28', null),

(9, 10, 'Access to Site Analytics', 100, '2021-01-02 11:12:28', null),

(10, 3, 'Unrestricted User', 70, '2021-01-02 11:12:28', null);

## 7.3 Thread\_comments Table:

insert into disqus.thread\_comments (id, thread\_id, user\_id, Context, sub\_comment\_id, updated\_at, created\_at)

values (1, 1, 3, 'You have to use cin.getline():', 0, null, '2021-01-02 11:03:07'),

(2, 1, 2, ' it happens. C++ isn''t exactly as intuitive as we would like it to be.', 1, null, '2021-01-02 11:03:07'),

(3, 1, 4, 'It doesn''t "fail"; it just stops reading. It sees a lexical token as a "string".', 0, null, '2021-01-02 11:03:07'),

(4, 2, 5, 'check your IP is enabled by mongodb atlas. you should give access to your computer IP address from mongodb atlas. go to the network access (left side bar) enter your IP or enter 0.0.0.0 to access all IP.', 0, null, '2021-01-02 11:03:07'),

(5, 2, 1, 'Did you have this line in your app.js app.use(cors())?',

0, null, '2021-01-02 11:03:07'),

(6, 3, 5, 'I think you are using chrome. The problem is the certificate mismatch or the expiration of the certificate.Check your certificate properly.', 0, null, '2021-01-02 11:03:07'),

(7, 3, 4, 'but i am getting this error on Mozilla also. What you think its just a browser isuue?', 6, null, '2021-01-02 11:03:07'), (8, 3, 5, 'its because of the certificate mismatch as i said', 7, null, '2021-01-02 11:03:07'),

(9, 4, 1, 'As quoted from CloudFlare''s Documentation:', 0, null, '2021-01-02 11:07:22'),

(10, 5, 4, 'The 404 code means that the server was unable to locate the files you were looking for via GET request.', 0, null, '2021-01-02

11:07:22'),

(11, 5, 5, 'just wondering what you mean by adding google maps api in tags? Has he not done that already?', 10, null, '2021-01-02 11:07:22'), (12, 5, 4, 'I made a mistake and mixed 1) and 2) in my rush to answer the question. He does use the script tags, but he forgot to include the text/javascript type.', 11, null, '2021-01-02 11:07:22'),

(13, 6, 5, 'The single fact that "then" is used after countDocuments does indicate that it''s a promise and thus asynchronous.', 0, null, '2021-

01-02 11:08:51'),

(14, 6, 2, 'It solved my problem. Thank you so much.', 13, null, '2021-01-02 11:08:51');

## 7.4 Threads Table:

insert into disqus.threads (id, title, description, thread\_user\_id, created\_at, updated\_at, accepted\_at)

values (1, 'Input string in c++ with spaces', 'The user wants to enter "Hello World". But cin fails at the space between the two words. How can I make cin take in the whole of Hello World? I''m actually doing this with structs and cin.getline doesn''t seem to work. My code yields an error. Any ideas?', 1, '2021-01-01 18:10:06', null, null),

(2, 'Unable to connect to mongodb atlas with mongoose', 'I need help!!! I tried connecting to mongodb atlas with my connection string but

I''m unable to. I''m not sure how to proceed. i have a barebones application. I''m getting a connection error (a mongooseServerSelectionError) and an unhandled Promise Rejection Warning.', 2, '2021-01-01 18:10:06', null, null), (3, 'Getting error in console : Failed to load resource', 'I have refresh my application page and getting this error in console Failed to load resource: net::ERR\_CONNECTION\_RESET.', 4, '2021-01-01 18:10:06', null, null), (4, 'Some files returning Error 520', 'Some of my files in my web server is returning Error 520: Web server is returning an unknown error. As far as I know, the files returning the errors are index.php and google0f3d9b\*\*\*.html (used to verify Google Webmaster Console).', 5, '202101-01 18:10:06', null, null),

(5, 'What is meaning of error 404 (Not Found)', 'I have created a small web site, where I am showing some data, which I get from an API (JSON data type). In my console I am getting these two errors:', 5, '2021-01-01

18:10:06', null, null),

(6, 'How To Solve NodeJS Method Priority Problem', 'In this case, method 3 works first and i am getting error. Its priority has to be like method 1, method 2, and method 3. Are these methods promises ? And promises work as asynchronous.', 2, '2021-01-01 18:10:06', null, null),

(7, 'Failed to launch preferred application for category

TerminalEmulator. Could not find fallback TerminalEmulator application', 'I see others have the the issue and see some resolution. And my questions is where to I run that install command from if I can''t get to terminal to run it? Thanks', 4, '2021-01-01 18:13:52', null, null),

(8, 'Where is the error in the react?', 'I built the file using commands: browserify -t reactify js/app.js -o js/build.js When starting in the browser, an error occurs: build.js:196 Uncaught TypeError: React.render is not a function at Object.2.react (build.js:196) at s (build.js:1) at e (build.js:1) at build.js:1', 6, '2021-01-01 18:10:06', null, null),

(9, 'How to avoid StackOverFlow error in Java/Kotlin/IntelliJ IDEA?',

'I want to do a factorial of a BigInteger (in Kotlin). With a tail recursion

I get StackOverFlow error when I try to do 9000! . With a non-recursive function I can do that ... but I am very curious how to avoid this kind of error.', 7, '2021-01-01 18:10:06', null, null),

(10, 'How to use My Fragment TextViews and button from my Activity?', 'I have asked similar questions here before How to make my Fragment make use of my Activity Data? and How to send data from Activity to Fragment?(Android) But it seems that most people did not quite understand what I mean, so let me explain better. Suppose I have a Textview and a button.', 9, '2021-01-01

18:10:06', null, null),

(11, 'Will Expo notifications work after project is built?', 'I am building a React Native app with Expo, and I am using Expo Notifications. If I go to build this app on iOS and Android, will Expo Notifications still work on the built app? Or is this something that only works so long as the app runs on Expo?', 8, '2021-01-01 18:10:06', null, null);

## 7.5 User\_thread\_tag:

insert into disqus.user\_thread\_tag (id, tag\_id, type, type\_id, created\_at, updated\_at)

values (1, 1, 'User', 1, '2021-01-02 10:55:45', null), (2, 2, 'User', 1, '2021-01-02 10:55:45', null),

(3, 3, 'User', 1, '2021-01-02 10:55:45', null),

(4, 4, 'Thread', 2, '2021-01-02 10:55:45', null),

(5, 5, 'Thread', 2, '2021-01-02 10:55:45', null),

(6, 6, 'Thread', 2, '2021-01-02 10:55:45', null),

(7, 7, 'Thread', 2, '2021-01-02 10:55:45', null),

(8, 8, 'Thread', 2, '2021-01-02 10:55:45', null),

(9, 1, 'User', 1, '2021-01-02 10:55:45', null),

(10, 2, 'Thread', 2, '2021-01-02 10:55:45', null),

(11, 3, 'User', 1, '2021-01-02 10:55:45', null), (12, 4, 'Thread', 2, '2021-01-02 10:55:45', null);

## 7.6 Users Table:

insert into disqus.users (id, name, email, password, token\_id, location, profile\_Url, status, is\_admin, updated\_at, created\_at) values (1, 'Saqib Rasheed', 'msaqib@gmail.com',

'$2y$10$c3SwLIb60ywA6MouTH50wexYfYCo.WtZLbqDC1e2zR816MiiRHTuO', '1',

'Islamabad', 'saqibrasheed', 1, 0, null, '2021-01-01 17:43:49'),

(2, 'Muhammad Ahmad', 'ahmad@gmail.com',

'$2y$10$lGgMaf0gJwztcev7uF/Vm.7IP0hT4f1cD7X7kOruWFHdZbEfd0JMa', '2',

'Faisalabad', 'ahmad62', 1, 0, null, '2021-01-02 17:43:49'),

(3, 'Shehryar Amin', 'sharry@gmail.com',

'$2y$10$JThm6hmw6/SzfRhGvWiB1eCltcMA8lJPsa1H/zfbvykWvQWwGrLPS', '3',

'Gujrat', 'sharry', 1, 1, null, '2021-01-01 17:43:49'),

(4, 'Abdul Baari', 'baari@gmail.com',

'$2y$10$opjhG4K4dnFNHtAK20W48uaUpAKVI4qL9GJym4fxWHS8kwqeZ3P.2', '4',

'Vehari', 'baari', 1, 0, null, '2021-01-01 17:46:09'),

(5, 'Hammad Mukhtar', 'hammad@gmail.com',

'$2y$10$V8DPOquMiMfubemsWxsUXetsDmgiWMJlMkpXzdY1GUjVNUNjdVr1q', '5',

'Multan', 'hammad', 0, 0, null, '2021-01-01 17:46:09'),

(6, 'Angela Yu', 'angela@gmail.com',

'$2y$10$c3SwLIb60ywA6MouTH50wexYfYCo.WtZLbqDC1e2zR816MiiRHTuO', '1',

'London', 'angela', 1, 0, null, '2021-01-01 17:43:49'),

(7, 'Maxmilian', 'maxmil@gmail.com',

'$2y$10$lGgMaf0gJwztcev7uF/Vm.7IP0hT4f1cD7X7kOruWFHdZbEfd0JMa', '2',

'Berlen', 'max69', 1, 0, null, '2021-01-02 17:43:49'),

(8, 'Shuwarz Muller', 'shuwarz@gmail.com',

'$2y$10$JThm6hmw6/SzfRhGvWiB1eCltcMA8lJPsa1H/zfbvykWvQWwGrLPS', '3',

'Manila', 'shuwarz', 1, 0, null, '2021-01-01 17:43:49'),

(9, 'Steven Wolfe', 'steve@gmail.com',

'$2y$10$opjhG4K4dnFNHtAK20W48uaUpAKVI4qL9GJym4fxWHS8kwqeZ3P.2', '4', 'New

York', 'steve', 1, 1, null, '2021-01-01 17:46:09'),

(10, 'Usama Shoukat', 'kitkat@gmail.com',

'$2y$10$V8DPOquMiMfubemsWxsUXetsDmgiWMJlMkpXzdY1GUjVNUNjdVr1q', '5', 'Jhang', 'kitkat', 0, 0, null, '2021-01-01 17:46:09')

## 7.7 Votes Table:

insert into disqus.votes (id, upvote, downvote, user\_id, thread\_id, created\_at, updated\_at)

values (1, 123, 3, 1, 2, '2021-01-01 18:18:52', null), (2, 1102, 67, 2, 3, '2021-01-01 18:18:52', null),

(3, 328, 4, 3, 4, '2021-01-01 18:18:52', null),

(4, 3433, 56, 4, 5, '2021-01-01 18:18:52', null),

(5, 267, 32, 4, 6, '2021-01-01 18:18:52', null),

(6, 133, 13, 6, 2, '2021-01-01 18:18:52', null),

(7, 1202, 27, 7, 3, '2021-01-01 18:18:52', null),

(8, 358, 35, 3, 8, '2021-01-01 18:18:52', null),

(9, 3833, 66, 4, 9, '2021-01-01 18:18:52', null),

(10, 67, 72, 4, 6, '2021-01-01 18:18:52', null);

## 7.8 Edit\_suggestions Table:

insert into disqus.edit\_suggestion (id, thread\_id, user\_id, title, description, is\_approved, created\_at, updated\_at, approved\_at)

values (1, 2, 2, 'Unable to connect to mongodb atlas with mongoose', 'I need help!!! I tried connecting to mongodb atlas with my connection string but I''m unable to. I''m not sure how to proceed. i have a barebones application. I''m getting a connection error (a mongooseServerSelectionError) and an unhandled Promise Rejection Warning.', 0, '2021-01-02 11:27:17', null, null),

(2, 3, 4, 'Console errors. Failed to load resource:

net::ERR\_INSECURE\_RESPONSE', 'I have refresh my application page and getting this error in console Failed to load resource: net::ERR\_CONNECTION\_RESET.', 0, '2021-01-02 11:27:17', null, null);

## 7.9 Notification Table:

insert into disqus.notifications (id, title, description, type, type\_id, user\_id, is\_seen, created\_at, updated\_at)

values (1, 'New Comment on your thread!', 'Muhammad Ahmad commented on your thread!', 'Comment', 2, 9, '0', '2021-01-13 00:07:30', null),

(2, 'New reply to your thread!', 'Muhammad Ahmad replied to your comment on Saqib Rasheed''s thread.', 'Reply', 1, 2, '0', '2021-01-13

00:07:30', null),

(3, 'New Comment on your thread!', 'Steve Wolf commented on your thread!', 'Comment', 2, 1, '0', '2021-01-13 00:07:30', null),

(4, 'New reply to your thread!', 'Shehryar Amin replied to your comment on Muhammad Ahmad''s thread.', 'Reply', 1, 2, '0', '2021-01-13

00:07:30', null),

(5, 'New Comment on your thread!', 'Angela Yu commented on your thread!', 'Comment', 2, 4, '0', '2021-01-13 00:07:30', null),

(6, 'New reply to your thread!', 'Maxmilian replied to your comment on Shuwarz Muller''s thread.', 'Reply', 1, 9, '0', '2021-01-13 00:07:30', null),

(7, 'New Comment on your thread!', 'Usama Shoukat commented on your thread!', 'Comment', 2, 5, '0', '2021-01-13 00:07:30', null),

(8, 'New reply to your thread!', 'Shehryar Amin replied to your comment on Angela Yu''s thread.', 'Reply', 1, 10, '0', '2021-01-13 00:07:30', null),

(9, 'New Comment on your thread!', 'Abdul Baari commented on your thread!', 'Comment', 2, 6, '0', '2021-01-13 00:07:30', null),

(10, 'New reply to your thread!', 'Saqib Rasheed replied to your comment on Hammad Mukhatar''s thread.', 'Reply', 1, 7, '0', '2021-01-13 00:07:30', null);

# 8. Reports:

## 8.1 Reputation from Top to bottom:

select

users.name, users.email, users.location,

r.value as 'Reputation',

r.description from users

join reputation r on users.id = r.user\_id order by r.value DESC;

## 8.2 Most Up-Voted Thread:

select t.title,

t.description,

v.upvote,

v.downvote from threads t

join votes v on t.id = v.thread\_id

where upvote in (SELECT *max*(upvote) from votes);

## 8.3 User-Wise Accepted Answer:

select u.name,

u.email,

u.location,

*count*(user\_id) as 'Total Accepted Answers' from users u

join thread\_comments tc on u.id = tc.user\_id where is\_accepted = 1 group by user\_id

order by *count*(user\_id) DESC;

## 8.4 Dead Thread Having no comment:

select t.title, t.description from threads t

left join thread\_comments tc on t.id = tc.thread\_id where tc.thread\_id IS NULL; *#Join Query*

select title, description from threads

where id NOT IN (SELECT thread\_id from thread\_comments);

*# Nested Query*

## 8.5 Question Wise Report:

select

u.name,

u.email,

*count*(thread\_user\_id) as 'Total Asked Question',

t.title,

t.description from users u

join threads t on u.id = t.thread\_user\_id group by t.thread\_user\_id

order by *count*(thread\_user\_id) DESC;

## 8.6 User With Most Answers (Most active user)

select u.name,

u.email,

u.location,

*count*(user\_id) as 'Total Answers' from users u

join thread\_comments tc on u.id = tc.user\_id group by user\_id

order by *count*(user\_id) DESC;

## 8.7 Topic with Most Posted Threads

select tag\_name,

*count*(tag\_id) as 'Total Threads' from tags

join user\_thread\_tag utt on tags.id = utt.tag\_id join threads t on utt.type\_id = t.id where type\_id = 2 && type = 'Thread' group by tag\_id

order by *count*(tag\_id) DESC;

## 8.8 Most Down-Voted Thread

select t.title,

t.description,

v.upvote,

v.downvote from threads t

join votes v on t.id = v.thread\_id where downvote IN (SELECT *max*(downvote) from votes);

## 8.9 Total no. of Edits by any admin (Admin with Max Edit Also)

## select

u.name as 'Admin Name',

u.email as 'Admin Email', *count*(thread\_id) as 'No.of Edits'

from threads t

join edit\_suggestion es on t.id = es.thread\_id join users u on es.user\_id = u.id group by u.id

order by *count*(thread\_id) DESC;

## 8.10 Question-Wise Edits (Filtered on basis on Admin-Name, Edit Differences, Same multiple edits.)

select es.title as 'Sugg. Title', es.description as 'Sugg. Description', *count*(thread\_id) as 'No.of Edits',

t.id as 'Thread ID',

u.name as 'Admin Name',

u.email as 'Admin Email' from threads t

join edit\_suggestion es on t.id = es.thread\_id join users u on es.user\_id = u.id group by thread\_id, u.id, es.title, es.description order by *count*(thread\_id) DESC;

# 9. Modification and Deletion of Data:

## 9.1 Query to change the datatype of column ‘token\_id’ of ‘users’ table:

alter table users modify token\_id longtext

## 9.2 Query to change the datatype of column ‘type’ of ‘user\_thread\_tag’ table:

alter table user\_thread\_tag modify type mediumtext

## 9.3 Delete data from Table ‘tags’ where ‘tag\_name’ is ‘c++’:

delete from tags where tag\_name = "c++"

## 9.4 Delete data from Table ‘threads’ where ‘thread\_user\_id’ is 4:

delete from threads where thread\_user\_id = 4

## 9.5 Update information of a user:

update users set location = 'Islamabad' where id = 4

# 10. Front End:

