

A6: Indexes, triggers, user functions and population

In this artifact, the database's physical schema will be presented. First, an estimation of the database's workload is presented. Then, the chosen performance indexes are identified and thoroughly described and justified. There is also the definition of triggers that ensure integrity rules that have no other way of being defined and user-defined functions. Finally, the full SQL code to create the database, define all integrity constraints, indexes, triggers and population data is included.

1. Database Workload

1.1. Tuple Estimation

Relation reference	Relation name	Order of magnitude	Estimated growth
R01	admin	units	no growth
R02	country	hundreds	no growth
R03	member	tens of thousands	dozens per day
R04	flag	dozens	units per month
R05	follow_member	tens of thousands	dozens per day
R06	notification	tens of thousands	dozens per day
R07	topic	hundreds	units per week
R08	follow_topic	thousands	hundreds per month
R09	question	hundreds of thousands	dozens per day
R10	answer	hundreds of thousands	dozens per day
R11	comment	tens of thousands	dozens per day
R12	question_topic	hundreds of thousands	dozens per day
R13	question_rating	millions	hundreds per day

R14	answer_rating	millions	hundreds per day
R15	comment_rating	hundreds of thousands	dozens per day
R16	question_report	dozens	units per week
R17	answer_report	dozens	units per week
R18	comment_report	dozens	units per week

Table 1 - Database's tuple estimation in terms of magnite order and expected growth.

1.2. Most Frequent Queries

In this section, the most frequently ran queries are shown, alongside a small explanation on what data they retrieve and their expected frequency.

Query reference	SELECT01
Query description	Obtain a member's profile information
Query frequency	hundreds per day
<pre>SELECT username, member.name, bio, profile_picture, score, is_moderator, country.name FROM member INNER JOIN country ON member.country_id = country.id WHERE member.id = \$id;</pre>	

Query reference	SELECT02
Query description	Obtain a member's most recent questions
Query frequency	hundreds per week
<pre>SELECT title, content, date FROM question INNER JOIN member ON question.author_id = member.id WHERE member.id = \$id ORDER BY date DESC LIMIT 10;</pre>	

Query reference	SELECT03
Query description	Obtain a member's most recent answers
Query frequency	hundreds per week
<pre>SELECT content, date FROM answer INNER JOIN member ON answer.author_id = member.id WHERE member.id = \$id</pre>	

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ORDER BY date DESC
LIMIT 10;
```

Query reference	SELECT04
Query description	Obtain a member's followers
Query frequency	hundreds per week
SELECT name, profile_picture, score, bio, is_moderator FROM follow_member INNER JOIN member ON follow_member.follower_id = member.id WHERE follow_member.following_id = \$id;	

Query reference	SELECT05
Query description	Obtain a member's notifications
Query frequency	thousands per day
SELECT type, content, date, read FROM notification INNER JOIN member ON notification.member_id = member.id WHERE member.id = \$id ORDER BY date DESC;	

Query reference	SELECT06
Query description	Obtain a question's details
Query frequency	thousands per day
SELECT member.name, member.profile_picture, question.title, question.content, question.date, (SELECT count(*) FROM question_rating WHERE question_id = \$id AND rate = 1) as positive_votes, (SELECT count(*) FROM question_rating WHERE question_id = \$id AND rate = -1) as negative_votes FROM question INNER JOIN member ON question.author_id = member.id WHERE question.id = \$id;	

Query reference	SELECT07
Query description	Obtain all the answers to a question
Query frequency	thousands per day
SELECT member.name, member.profile_picture, answer.content, answer.date FROM answer INNER JOIN question ON answer.question_id = question.id INNER JOIN member ON answer.author_id = member.id WHERE question.id = \$id;	

Query reference	SELECT08
Query description	Obtain all the comments to a question
Query frequency	thousands per day
SELECT member.name, member.profile_picture, comment.content, comment.date FROM comment INNER JOIN question ON comment.question_id = question.id INNER JOIN member ON comment.author_id = member.id WHERE question.id = \$id;	

Query reference	SELECT09
Query description	Obtain all the comments to an answer
Query frequency	thousands per day
SELECT member.name, member.profile_picture, comment.content, comment.date FROM comment INNER JOIN answer ON comment.answer_id = answer.id INNER JOIN member ON comment.author_id = member.id WHERE answer.id = \$id;	

Query reference	SELECT10
Query description	Obtain questions matching a search input
Query frequency	hundreds per day
SELECT member.name, member.profile_picture, question.title, question.content, question.date FROM question INNER JOIN member ON question.author_id = member.id WHERE question.search @@ plainto_tsquery('english', \$search_input) ORDER BY ts_rank(question.search, plainto_tsquery('english', \$search_input) DESC;	

Query reference	SELECT11
Query description	Obtain answers matching a search input
Query frequency	hundreds per day
SELECT member.name, member.profile_picture, answer.content, answer.date FROM answer INNER JOIN member ON answer.author_id = member.id WHERE answer.search @@ plainto_tsquery('english', \$search_input) ORDER BY ts_rank(answer.search, plainto_tsquery('english', \$search_input) DESC;	

NOTE that there is no query for comment search. As comments are a secondary part of the website (its focus is on questions and answers) and have a smaller relevance, it was concluded that searching for comments is not relevant.

Query reference	SELECT12
Query description	Obtain the top users (highest score)
Query frequency	thousands per day
SELECT username, name, profile_picture, score, is_moderator FROM member ORDER BY score DESC LIMIT 10;	

Query reference	SELECT13
Query description	Obtain the topics associated to a question
Query frequency	thousands per day
SELECT name FROM topic INNER JOIN question_topic ON topic.id = question_topic.topic_id WHERE question_topic.question_id = \$id;	

Query reference	SELECT14
Query description	Obtain trending topics (topics with the most questions associated)
Query frequency	thousands per day
SELECT name FROM topic INNER JOIN question_topic ON topic.id = question_topic.topic_id GROUP BY name ORDER BY count(*) DESC LIMIT 5;	

Query reference	SELECT15
Query description	Obtain questions posted in a specific date period
Query frequency	hundreds per day
SELECT member.name, member.profile_picture, question.title, question.content, question.date FROM question INNER JOIN member ON question.author_id = member.id	

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WHERE question.date BETWEEN $beginning_date AND $end_date;
```

Query reference	SELECT16
Query description	Obtain answers posted in a specific date period
Query frequency	hundreds per day
<pre>SELECT member.name, member.profile_picture, answer.content, answer.date FROM answer INNER JOIN member ON answer.author_id = member.id WHERE answer.date BETWEEN \$beginning_date AND \$end_date;</pre>	

1.3. Most Frequent Updates

In this section, the most frequent types of change to the database are described. First, the most common updates, then inserts and, finally, deletes.

Query reference	UPDATE01
Query description	Update user
Query frequency	hundreds per month
<pre>UPDATE member SET name = \$name, password = \$password, bio = \$bio, profile_picture = \$profile_picture, score = \$score WHERE id = \$id;</pre>	

Query reference	UPDATE02
Query description	Update topic
Query frequency	dozens per month
<pre>UPDATE topic SET name = \$name, description = \$description, picture = \$picture WHERE id = \$id;</pre>	

Query reference	UPDATE03
Query description	Update question
Query frequency	units per day

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UPDATE question
SET title = $title, content = $content, views = $views, solved = $solved
WHERE id = $id;
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Query reference	UPDATE04
Query description	Update answer
Query frequency	units per day
UPDATE answer SET content = \$content, views = \$views WHERE id = \$id;	

Query reference	UPDATE05
Query description	Update comment
Query frequency	units per day
UPDATE comment SET content = \$content WHERE id = \$id;	

Query reference	UPDATE06
Query description	Mark notification as read
Query frequency	dozens per day
UPDATE notification SET read = true WHERE id = \$id;	

Query reference	INSERT01
Query description	Add new member
Query frequency	dozens per day
INSERT INTO member (username, email, password, name, country_id) VALUES (\$username, \$email, \$password, \$name, \$country_id);	

Query reference	INSERT02
Query description	Add new question

Query frequency	dozens per day
INSERT INTO question (title, content, date, author_id) VALUES (\$title, \$content, \$date, \$author_id);	

Query reference	INSERT03
Query description	Add new answer
Query frequency	dozens per day
INSERT INTO answer (content, date, author_id, question_id) VALUES (\$content, \$date, \$author_id, \$question_id);	

Query reference	INSERT04
Query description	Add new comment
Query frequency	dozens per day
INSERT INTO comment (content, date, author_id, question_id, answer_id) VALUES (\$content, \$date, \$author_id, \$question_id, \$answer_id);	

Query reference	INSERT05
Query description	Add new topic
Query frequency	units per week
INSERT INTO topic (name, description, picture) VALUES (\$name, \$description, \$picture);	

Query reference	INSERT06
Query description	Associate a topic to a question
Query frequency	dozens per day
INSERT INTO question_topic (question_id, topic_id) VALUES (\$question_id, \$topic_id);	

Query reference	INSERT07
Query description	Rating content (in this case a question, but there are similar ones for answers and

	comments).
Query frequency	hundreds per day
INSERT INTO question_rating (question_id, member_id, rate) VALUES (\$question_id, \$member_id, \$rate);	

Query reference	INSERT08
Query description	Add a new notification to a member.
Query frequency	dozens per day
INSERT INTO notification (type, date, content, member_id) VALUES (\$type, \$date, \$content, \$member_id);	

Query reference	DELETE01
Query description	Delete a question
Query frequency	units per week
DELETE FROM question WHERE id = \$id;	

Query reference	DELETE02
Query description	Delete an answer
Query frequency	untis per week
DELETE FROM answer WHERE id = \$id;	

Query reference	DELETE03
Query description	Delete a comment
Query frequency	units per week
DELETE FROM comment WHERE id = \$id;	

Query reference	DELETE04
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Query description	Delete a topic
Query frequency	units per month
DELETE FROM topic WHERE id = \$id;	

2. Proposed Indexes

2.1. Performance Indexes

Below are the proposed indexes in order to provide a better performance in some of the main queries. Note that some indexes are marked with an asterisk (*). In those cases, it was theoretically better to use a hash index. However, due to their unreliability in Postgres 9.x, it was opted to use B-tree in their place, as, despite not performing in $O(1)$ like hash, its performance is pretty close and, being reliable, it was deemed good enough.

Index reference	IDX01
Related queries	SELECT02, SELECT06, INSERT02
Index relation	question
Index attribute	author_id
Index type	B-tree (*)
Cardinality	medium
Clustering	No
Justification	<p>Both queries involve linking questions to their author and are executed several times, so they must be fast. It is an equality comparison. It does not need range query support. Medium cardinality so it is a good candidate for clustering, however it will not be done as there is already another index on this table where clustering will be applied.</p> <p>It will cause an extra overhead when inserting the question, however, each time a question is retrieved, its author's information is as well. It's a tradeoff, but since it has no impact on update queries (the author is always the same), the performance advantages outweigh the overhead.</p>
CREATE INDEX idx_question_author_id ON question USING btree (author_id);	

Index reference	IDX02
Related queries	SELECT03, SELECT07, INSERT03
Index relation	answer
Index attribute	author_id
Index type	B-tree (*)
Cardinality	medium
Clustering	No
Justification	<p>Both queries involve linking answers to their author and are executed several times, so they must be fast. It is an equality comparison. It does not need range query support. Medium cardinality so it is a good candidate for clustering, however it will not be done as there is already another index on this table where clustering will be applied.</p> <p>It will cause an extra overhead when inserting the answer, however, each time an answer is retrieved, its author's information is as well. It's a tradeoff, but since it has no impact on update queries (the author is always the same), the performance advantages outweigh the overhead.</p>
CREATE INDEX idx_answer_author_id ON answer USING btree (author_id);	

Index reference	IDX03
Related queries	SELECT07, INSERT03
Index relation	answer
Index attribute	question_id
Index type	B-tree (*)
Cardinality	medium
Clustering	No

Justification	<p>Query involves linking answer to the respective question and is executed several times, so it must be fast. It is an equality comparison. It does not need range query support. Medium cardinality so it is a good candidate for clustering, however it will not be done as there is already another index on this table where clustering will be applied.</p> <p>It will cause an extra overhead when inserting the answer, however, most times, when retrieving an answer, it is because the intention is to retrieve all the answers to a specific question. It's a tradeoff, but since it has no impact on update queries (the question associated is always the same), the performance advantages outweigh the overhead.</p>
CREATE INDEX idx_answer_question_id ON answer USING btree (question_id);	

Index reference	IDX04
Related queries	SELECT08, SELECT09
Index relation	comment
Index attribute	author_id
Index type	B-tree (*)
Cardinality	medium
Clustering	Yes
Justification	<p>Both queries involve obtaining linking comment to their author and are executed several times, so they must be fast. It is an equality comparison. It does not need range query support. Medium cardinality so it is a good candidate for clustering.</p> <p>It will cause an extra overhead when inserting the comment, however, each time a comment is retrieved, its author's information is as well. It's a tradeoff, but since it has no impact on update queries (the author is always the same), the performance advantages outweigh the overhead.</p>

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CREATE INDEX idx_comment_author_id ON comment USING btree (author_id);
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Index reference	IDX05
Related queries	SELECT12, INSERT01, UPDATE01
Index relation	member
Index attribute	score
Index type	B-tree
Cardinality	high
Clustering	No
Justification	<p>Query involves sorting members by their scores so inequality comparisons must be made, therefore B-tree index suits better. Query executed very frequently so it has to be fast. It does not need range query support.</p> <p>It will cause an extra overhead on creation and on update of a member's score (which can happen quite often because quite some variables are involved in the score formula), however the SELECT query involved is used on the project's main page feed, therefore having a performance index boost is a must and outweighs the overheads.</p>
<pre>CREATE INDEX idx_member_score ON member USING btree (score);</pre>	

Index reference	IDX06
Related queries	SELECT08, INSERT04
Index relation	comment
Index attribute	question_id
Index type	B-tree (*)
Cardinality	medium
Clustering	No
Justification	<p>Queries involve linking a comment to the question it addresses and is executed</p>

	<p>several times, so it must be fast. It is an equality comparison. It does not need range query support. Medium cardinality so good candidate for clustering, however, since the column admits NULL values and there already is another index on this table where clustering will be applied, it will not be done. It will cause an extra overhead when inserting the comment, however, each time a comment is retrieved, it is because the intention is to retrieve all the comments to a specific question (in this case; could be an answer instead). It's a tradeoff, but since it has no impact on update queries (the question associated is always the same), the performance advantages outweigh the overhead.</p>
<pre>CREATE INDEX idx_comment_question_id ON comment USING btree (question_id);</pre>	

Index reference	IDX07
Related queries	SELECT09, INSERT04
Index relation	comment
Index attribute	answer_id
Index type	B-tree (*)
Cardinality	medium
Clustering	No
Justification	<p>Queries involve linking a comment to the answer it addresses and is executed several times, so it must be fast. It is an equality comparison. It does not need range query support. Medium cardinality so good candidate for clustering, however, since the column admits NULL values and there already is another index on this table where clustering will be applied, it will not be done. It will cause an extra overhead when inserting the comment, however, each time a comment is retrieved, it is because the intention is to retrieve all the comments to a specific answer (in this case; could be a question instead). It's a tradeoff, but since it has no impact on update queries (the</p>

	answer associated is always the same), the performance advantages outweigh the overhead.
CREATE INDEX idx_comment_answer_id ON comment USING btree (answer_id);	

Index reference	IDX08
Related queries	SELECT02, SELECT15, INSERT02
Index relation	question
Index attribute	date
Index type	B-tree
Cardinality	medium
Clustering	Yes
Justification	<p>Query involves obtaining a series of questions ordered by date or whose date fall within a specific range. It needs, then, range query support, therefore it is a good case for a B-tree index and a good candidate for clustering.</p> <p>It will cause an extra overhead when creating a new question. However, since the (creation) date is always the same, it has no impact on update queries, while allowing for a very quick search and sequential tuple retrieval on the disk. It's a tradeoff, but the advantages highly outweigh the disadvantages.</p>
CREATE INDEX idx_question_date ON question USING btree (date);	

Index reference	IDX09
Related queries	SELECT03, SELECT16, INSERT03
Index relation	answer
Index attribute	date
Index type	B-tree
Cardinality	medium

Clustering	Yes
Justification	<p>Query involves obtaining a series of answers ordered by date or whose date fall within a specific range. It needs, then, range query support, therefore it is a good case for a B-tree index and a good candidate for clustering.</p> <p>It will cause an extra overhead when creating a new answer. However, since the (creation) date is always the same, it has no impact on update queries, while allowing for a very quick search and sequential tuple retrieval on the disk. It's a tradeoff, but the advantages highly outweigh the disadvantages.</p>
CREATE INDEX idx_answer_date ON answer USING btree (date);	

2.2. Full-text Search Indexes

Index reference	IDX10
Related queries	SELECT10, INSERT02, UPDATE03
Index relation	question
Index attributes	search (weighted concatenation of columns title and content's ts_vectors)
Index type	GiST
Clustering	No
Justification	<p>To improve the performance of full text search on questions. GiST was chosen because the data is dynamic (there are a lot of new questions frequently and edits can/will be made, e.g. due to errors or just to update the context).</p> <p>It will cause an extra overhead on creation and on update of questions, however, the search speed boost that comes with the index highly outweighs the overhead disadvantage.</p>
CREATE INDEX question_search_index ON question USING GIST (search);	

Index reference	IDX11
Related queries	SELECT11, INSERT03, UPDATE04
Index relation	answer
Index attribute	search (ts_vector for column content)
Index type	GiST
Clustering	No
Justification	<p>To improve the performance of full text search on answers, through its content. Like the previous one, GiST was chosen because the data is dynamic (there are a lot of new answers frequently and edits can/will be made, e.g. due to errors or improve the answer's quality after some comment feedback).</p> <p>It will cause an extra overhead on creation and on update of answer, however, the search speed boost that comes with the index highly outweighs the overhead disadvantage.</p>
<pre>CREATE INDEX answer_search_index ON answer USING GIST (search);</pre>	

3. Triggers

Trigger reference	TRIGGER01
Trigger description	A member cannot rate his own content (to simplify, only the question_rating trigger is shown, but similar ones were defined for answers and comments. They are shown in the full code section)
<pre>CREATE FUNCTION member_question_rating() RETURNS TRIGGER AS \$\$ BEGIN IF NEW.member_id = (SELECT member.id FROM question INNER JOIN member ON question.author_id = member.id WHERE question.id = NEW.question_id) THEN RAISE EXCEPTION 'A member cannot rate his own questions'; END IF; RETURN NEW; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER member_question_rating BEFORE INSERT OR UPDATE OF member_id, question_id ON question_rating FOR EACH ROW</pre>	

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EXECUTE PROCEDURE member_question_rating();
```

Trigger reference	TRIGGER02
Trigger description	A member cannot report his own content (to simplify, only the question_report trigger is shown, but similar ones were defined for answers and comments. They are shown in the full code section)
<pre>CREATE FUNCTION member_question_report() RETURNS TRIGGER AS \$\$ BEGIN IF NEW.member_id = (SELECT member.id FROM question INNER JOIN member ON question.author_id = member.id WHERE question.id = NEW.question_id) THEN RAISE EXCEPTION 'A member cannot report his own questions'; END IF; RETURN NEW; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER member_question_report BEFORE INSERT OR UPDATE OF member_id, question_id ON question_report FOR EACH ROW EXECUTE PROCEDURE member_question_report();</pre>	

Trigger reference	TRIGGER03
Trigger description	An email address must be unique, even across administrators and members.
<pre>CREATE FUNCTION admin_member_email() RETURNS TRIGGER AS \$\$ BEGIN IF EXISTS(SELECT member.email FROM admin INNER JOIN member ON admin.email = member.email) THEN RAISE EXCEPTION 'Email must be unique'; END IF; RETURN NEW; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER admin_email BEFORE INSERT OR UPDATE OF email ON admin FOR EACH ROW EXECUTE PROCEDURE admin_member_email(); CREATE TRIGGER member_email BEFORE INSERT OR UPDATE OF email ON member FOR EACH ROW EXECUTE PROCEDURE admin_member_email();</pre>	

Trigger reference	TRIGGER04
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Trigger description	A question must always have at least 1 topic associated with it
<pre> CREATE FUNCTION question_topic() RETURNS TRIGGER AS \$\$ BEGIN IF NOT EXISTS(SELECT * FROM question_topic INNER JOIN question ON question.id = question_topic.question_id WHERE question.id = OLD.question_id) THEN RAISE EXCEPTION 'Question must have at least 1 topic associated'; END IF; RETURN OLD; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER question_topic BEFORE DELETE ON question_topic FOR EACH ROW EXECUTE PROCEDURE question_topic(); </pre>	

Trigger reference	TRIGGER05
Trigger description	Post dates must be consistent (answer's date must be further than its associated question; same goes for a comment and its associated question/answer)
<pre> CREATE FUNCTION answer_date() RETURNS TRIGGER AS \$\$ BEGIN IF NEW.date < (SELECT question.date FROM question INNER JOIN answer ON answer.question_id = question.id WHERE answer.id = NEW.id) THEN RAISE EXCEPTION 'Answer date must be further than its associated question'; END IF; RETURN NEW; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER answer_date BEFORE INSERT OR UPDATE OF "date" ON answer FOR EACH ROW EXECUTE PROCEDURE answer_date(); CREATE FUNCTION comment_date() RETURNS TRIGGER AS \$\$ BEGIN IF NEW.question_id IS NULL THEN --Comment is associated to an answer IF NEW.date < (SELECT answer.date FROM answer INNER JOIN comment ON comment.answer_id = answer.id WHERE comment.id = NEW.id) THEN RAISE EXCEPTION 'Comment date must be further than its associated answer'; END IF; ELSE --Comment is associated to a question IF NEW.date < (SELECT question.date FROM question INNER JOIN comment ON comment.question_id = question.id WHERE comment.id = NEW.id) THEN RAISE EXCEPTION 'Comment date must be further than its associated question'; END IF; END IF; RETURN NEW; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER comment_date BEFORE INSERT OR UPDATE OF "date" ON comment </pre>	

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FOR EACH ROW
EXECUTE PROCEDURE comment_date();
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Trigger reference	TRIGGER06
Trigger description	A member's score is updated when there is activity from his account (new questions and/or answers).
<pre>CREATE FUNCTION update_score_post() RETURNS TRIGGER AS \$\$ BEGIN IF TG_TABLE_NAME = 'question' THEN IF TG_OP = 'INSERT' THEN UPDATE member SET nr_questions = nr_questions + 1 WHERE id = NEW.author_id; ELSIF TG_OP = 'DELETE' THEN UPDATE member SET nr_questions = nr_questions - 1 WHERE id = OLD.author_id; END IF; ELSIF TG_TABLE_NAME = 'answer' THEN IF TG_OP = 'INSERT' THEN UPDATE member SET nr_answers = nr_answers + 1 WHERE id = NEW.author_id; ELSIF TG_OP = 'DELETE' THEN UPDATE member SET nr_answers = nr_answers - 1 WHERE id = OLD.author_id; END IF; END IF; IF TG_OP = 'INSERT' THEN UPDATE member SET score = round((1+positive_votes/(1+total_votes))*(0.4*nr_questions+0.6*nr_answers)) WHERE id = NEW.author_id; ELSE UPDATE member SET score = round((1+positive_votes/(1+total_votes))*(0.4*nr_questions+0.6*nr_answers)) WHERE id = OLD.author_id; END IF; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER update_score_question AFTER INSERT OR DELETE ON question FOR EACH ROW EXECUTE PROCEDURE update_score_post(); CREATE TRIGGER update_score_answer AFTER INSERT OR DELETE ON answer FOR EACH ROW EXECUTE PROCEDURE update_score_post();</pre>	

Trigger reference	TRIGGER07
Trigger description	A member's score is updated when there is activity on his content (ratings; for simplicity, only the trigger for new ratings is shown, but there are others for ratings changes and deletions).
<pre> CREATE FUNCTION update_score_new_rating() RETURNS TRIGGER AS \$\$ DECLARE user_id int; BEGIN IF TG_TABLE_NAME = 'question_rating' THEN user_id = (SELECT question.author_id FROM question WHERE question.id = NEW.question_id); ELSIF TG_TABLE_NAME = 'answer_rating' THEN user_id = (SELECT answer.author_id FROM answer WHERE answer.id = NEW.answer_id); ELSE RAISE EXCEPTION 'Invalid operation triggering score update'; END IF; IF NEW.rate = 1 THEN UPDATE member SET positive_votes = positive_votes + 1 WHERE id = user_id; END IF; UPDATE member SET total_votes = total_votes + 1, score = round((1+positive_votes/(1+total_votes))*(0.4*nr_questions+0.6*nr_answers)) WHERE id = user_id; RETURN NEW; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER update_score_new_question_rating AFTER INSERT ON question_rating FOR EACH ROW EXECUTE PROCEDURE update_score_new_rating(); CREATE TRIGGER update_score_new_answer_rating AFTER INSERT ON answer_rating FOR EACH ROW EXECUTE PROCEDURE update_score_new_rating(); </pre>	

NOTE that, for simplicity and to give even more importance to the project's goal (promote a platform of questions and answers), the score formula was simplified to exclude the number of comments and ratings on them. The new formula is $(1+PV/(1+TV))*(0.4*NQ+0.6*NA)$, PV - Positive votes, TV - Total votes (both in regards to questions and answers), NQ - Number of questions, NA - Number of answers. $1+TV$ is to prevent division by 0 until a member's posts start getting rated.

Trigger reference	TRIGGER08
Trigger description	Only moderators can flag members.
<pre> CREATE FUNCTION moderator_flag() RETURNS TRIGGER AS \$\$ BEGIN IF (SELECT is_moderator FROM flag INNER JOIN member ON flag.moderator_id = member.id </pre>	

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WHERE flag.moderator_id = NEW.moderator_id AND flag.member_id = NEW.member_id) = false
THEN
    RAISE EXCEPTION 'Only moderators can flag members';
END IF;
RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER moderator_flag
BEFORE INSERT OR UPDATE OF moderator_id ON flag
FOR EACH ROW
EXECUTE PROCEDURE moderator_flag();

```

Trigger reference	TRIGGER09
Trigger description	A member is notified when someone else answers his question.
<pre> CREATE FUNCTION notify_on_answer() RETURNS TRIGGER AS \$\$ BEGIN IF NEW.author_id <> (SELECT question.author_id FROM question INNER JOIN answer ON question.id = answer.question_id WHERE answer.id = NEW.id) THEN --Avoid notification when answering one's own question INSERT INTO notification (type, "date", content, member_id) VALUES ('Answer', now(), (SELECT name FROM answer INNER JOIN member ON author_id = member.id WHERE answer.id = NEW.id) ' answered your question: ' (SELECT title FROM question INNER JOIN answer ON question.id = answer.question_id WHERE answer.id = NEW.id), (SELECT member.id FROM question INNER JOIN answer ON question.id = answer.question_id INNER JOIN member ON question.author_id = member.id WHERE answer.id = NEW.id)); END IF; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER notify_on_answer AFTER INSERT ON answer FOR EACH ROW EXECUTE PROCEDURE notify_on_answer(); </pre>	

Trigger reference	TRIGGER10
Trigger description	A member is notified when someone else leaves a comment on his question (there is a similar one for comments on answers that, for simplicity, is not shown here).
<pre> CREATE FUNCTION notify_on_comment_question() RETURNS TRIGGER AS \$\$ BEGIN IF NEW.author_id <> (SELECT question.author_id FROM question INNER JOIN comment ON question.id = comment.question_id WHERE comment.id = NEW.id) THEN --Avoid notification when leaving a comment on one's own question INSERT INTO notification (type, "date", content, member_id) VALUES ('Comment', now(), (SELECT name FROM comment INNER JOIN member ON author_id = member.id WHERE comment.id = NEW.id) ' left a comment on your question: ' (SELECT title FROM </pre>	

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question INNER JOIN comment ON question.id = comment.question_id WHERE comment.id =
NEW.id),
    (SELECT member.id FROM question INNER JOIN comment ON question.id =
comment.question_id INNER JOIN member ON question.author_id = member.id WHERE comment.id
= NEW.id));
    END IF;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER notify_on_comment_question
    AFTER INSERT ON comment
    FOR EACH ROW
    WHEN NEW.question_id IS NOT NULL
        EXECUTE PROCEDURE notify_on_comment_question();

```

Trigger reference	TRIGGER11
Trigger description	Columns subject to full text search must keep their ts_vectors updated.
<pre> CREATE FUNCTION question_search_update() RETURNS TRIGGER AS \$\$ BEGIN NEW.search = setweight(to_tsvector('english', coalesce(NEW.title,'')), 'A') setweight(to_tsvector('english', coalesce(NEW.content,'')), 'B'); RETURN NEW; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER question_search_update BEFORE INSERT OR UPDATE OF title, content ON question FOR EACH ROW EXECUTE PROCEDURE question_search_update(); CREATE FUNCTION answer_search_update() RETURNS TRIGGER AS \$\$ BEGIN NEW.search = to_tsvector('english', coalesce(NEW.content,'')); RETURN NEW; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER answer_search_update BEFORE INSERT OR UPDATE OF content ON answer FOR EACH ROW EXECUTE PROCEDURE answer_search_update(); </pre>	

Trigger reference	TRIGGER12
Trigger description	A member is notified when someone else upvotes his question (there is a similar one for answer upvotes that, for simplicity, is not shown here).
<pre> CREATE FUNCTION notify_on_question_rating() RETURNS TRIGGER AS \$\$ BEGIN INSERT INTO notification (type, "date", content, member_id) VALUES ('Rating', now(), </pre>	

```

        (SELECT name from question_rating INNER JOIN member ON question_rating.member_id
= member.id WHERE question_rating.question_id = NEW.question_id AND member.id =
NEW.member_id) || ' upvoted your question: ' || (SELECT title FROM question INNER JOIN
question_rating ON question_rating.question_id = question.id WHERE
question_rating.member_id = NEW.member_id AND question.id = NEW.question_id),
        (SELECT member.id FROM question INNER JOIN member ON question.author_id =
member.id WHERE question.id = NEW.question_id));
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER notify_on_question_rating
AFTER INSERT ON question_rating
FOR EACH ROW
WHEN (NEW.rate = 1)
EXECUTE PROCEDURE notify_on_question_rating();

```

Trigger reference	TRIGGER13
Trigger description	A member is notified when someone else follows him.
<pre> CREATE FUNCTION notify_on_follow() RETURNS TRIGGER AS \$\$ BEGIN INSERT INTO notification (type, "date", content, member_id) VALUES ('Follow', now(), (SELECT name FROM follow_member INNER JOIN member ON follow_member.follower_id = member.id WHERE follow_member.following_id = NEW.following_id AND member.id = NEW.follower_id) ' followed you', NEW.following_id); RETURN NEW; END \$\$ LANGUAGE 'plpgsql'; CREATE TRIGGER notify_on_follow AFTER INSERT ON follow_member FOR EACH ROW EXECUTE PROCEDURE notify_on_follow(); </pre>	

4. Complete SQL Code

Below is the code that creates the tables, indexes and triggers for the database. The population data is at the end. Since the complete code is relatively large, after this paragraph there are some useful links to each section. **Note** that, while populating, no notifications were manually inserted, as there was no need. Triggers TRIGGER09, TRIGGER10, TRIGGER12 and TRIGGER13 automatically added them when necessary.

Database creation: [In this document](#) | [Github](#)

Indexes: [In this document](#) | [Github](#)

Triggers: [In this document](#) | [Github](#)

Population data: [In this document](#) | [Github](#)


```

-- NotificationOrigin enum
CREATE TYPE notification_origin AS ENUM (
    'Question',
    'Answer',
    'Comment',
    'Rating',
    'Follow',
    'Mention'
);

CREATE TABLE admin (
    id SERIAL NOT NULL,
    email VARCHAR(40) NOT NULL,
    password VARCHAR(35) NOT NULL,
    CONSTRAINT admin_pk PRIMARY KEY (id),
    CONSTRAINT admin_uk UNIQUE (email)
);

CREATE TABLE country (
    id SERIAL NOT NULL,
    name VARCHAR(30) NOT NULL,
    CONSTRAINT country_pk PRIMARY KEY (id),
    CONSTRAINT country_uk UNIQUE (name)
);

CREATE TABLE member (
    id SERIAL NOT NULL,
    username VARCHAR(20) NOT NULL,
    email VARCHAR(40) NOT NULL,
    password VARCHAR(35) NOT NULL,
    name VARCHAR(35) NOT NULL,
    bio text,
    profile_picture text,
    -- redundant data (for better performance on score update)
    positive_votes INTEGER NOT NULL DEFAULT 0,
    total_votes INTEGER NOT NULL DEFAULT 0,
    nr_questions INTEGER NOT NULL DEFAULT 0,
    nr_answers INTEGER NOT NULL DEFAULT 0,
    --
    score INTEGER NOT NULL DEFAULT 0,
    is_banned BOOLEAN NOT NULL DEFAULT false,
    is_moderator BOOLEAN NOT NULL DEFAULT false,
    country_id INTEGER NOT NULL,
    CONSTRAINT member_pk PRIMARY KEY (id),
    CONSTRAINT member_username_uk UNIQUE (username),
    CONSTRAINT member_email_uk UNIQUE (email),
    CONSTRAINT member_fk FOREIGN KEY (country_id) REFERENCES country (id) ON UPDATE
    CASCADE ON DELETE RESTRICT
);

CREATE TABLE flag (
    member_id INTEGER NOT NULL,
    moderator_id INTEGER NOT NULL,

```

```

        "date" TIMESTAMP WITH TIME zone NOT NULL,
        reason text NOT NULL,
        CONSTRAINT flag_pk PRIMARY KEY (member_id, moderator_id),
        CONSTRAINT flag_member_fk FOREIGN KEY (member_id) REFERENCES member (id) ON UPDATE
CASCADE ON DELETE CASCADE,
        CONSTRAINT flag_moderator_fk FOREIGN KEY (member_id) REFERENCES member (id) ON
UPDATE CASCADE ON DELETE CASCADE

);

CREATE TABLE follow_member (
    follower_id INTEGER NOT NULL,
    following_id INTEGER NOT NULL,
    CONSTRAINT follow_member_ck CHECK (follower_id <> following_id),
    CONSTRAINT follow_member_pk PRIMARY KEY (follower_id, following_id),
    CONSTRAINT follow_member_follower_fk FOREIGN KEY (follower_id) REFERENCES member
(id) ON UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT follow_member_following_fk FOREIGN KEY (following_id) REFERENCES member
(id) ON UPDATE CASCADE ON DELETE CASCADE
);

CREATE TABLE notification (
    id SERIAL NOT NULL,
    type notification_origin NOT NULL,
    "date" TIMESTAMP WITH TIME zone NOT NULL,
    content text NOT NULL,
    member_id INTEGER NOT NULL,
    read BOOLEAN NOT NULL DEFAULT false,
    CONSTRAINT notification_pk PRIMARY KEY (id),
    CONSTRAINT notification_fk FOREIGN KEY (member_id) REFERENCES member (id)
);

CREATE TABLE topic (
    id SERIAL NOT NULL,
    name VARCHAR(25) NOT NULL,
    description text,
    picture text,
    CONSTRAINT topic_pk PRIMARY KEY (id)
);

CREATE TABLE follow_topic (
    member_id INTEGER NOT NULL,
    topic_id INTEGER NOT NULL,
    CONSTRAINT follow_topic_pk PRIMARY KEY (member_id, topic_id),
    CONSTRAINT follow_topic_member_fk FOREIGN KEY (member_id) REFERENCES member (id) ON
UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT follow_topic_topic_fk FOREIGN KEY (topic_id) REFERENCES topic (id) ON
UPDATE CASCADE ON DELETE CASCADE

);

CREATE TABLE question (
    id SERIAL NOT NULL,
    title text NOT NULL,

```

```

        content text NOT NULL,
        "date" TIMESTAMP WITH TIME zone NOT NULL,
        views INTEGER NOT NULL CHECK (views >= 0) DEFAULT 0,
        solved BOOLEAN NOT NULL DEFAULT false,
        author_id INTEGER NOT NULL,
        search tsvector NOT NULL,
        CONSTRAINT question_pk PRIMARY KEY (id),
        CONSTRAINT question_fk FOREIGN KEY (author_id) REFERENCES member (id) ON UPDATE
CASCADE ON DELETE CASCADE
    );

CREATE TABLE answer (
    id SERIAL NOT NULL,
    content text NOT NULL,
    "date" TIMESTAMP WITH TIME zone NOT NULL,
    views INTEGER NOT NULL CHECK (views >= 0),
    question_id INTEGER NOT NULL,
    author_id INTEGER NOT NULL,
    search tsvector NOT NULL,
    CONSTRAINT answer_pk PRIMARY KEY (id),
    CONSTRAINT answer_member_fk FOREIGN KEY (author_id) REFERENCES member (id) ON
UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT answer_question_fk FOREIGN KEY (question_id) REFERENCES question (id)
);

CREATE TABLE comment (
    id SERIAL NOT NULL,
    content text NOT NULL,
    "date" TIMESTAMP WITH TIME zone NOT NULL,
    question_id INTEGER,
    answer_id INTEGER,
    author_id INTEGER NOT NULL,
    CONSTRAINT comment_ck CHECK ((question_id IS NULL AND answer_id IS NOT NULL) OR
(question_id IS NOT NULL AND answer_id IS NULL)), --XOR
    CONSTRAINT comment_pk PRIMARY KEY (id),
    CONSTRAINT comment_question_fk FOREIGN KEY (question_id) REFERENCES question (id)
ON UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT comment_member_fk FOREIGN KEY (author_id) REFERENCES member (id) ON
UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT comment_answer_fk FOREIGN KEY (answer_id) REFERENCES answer (id) ON
UPDATE CASCADE ON DELETE CASCADE
);

CREATE TABLE question_topic (
    question_id INTEGER NOT NULL,
    topic_id INTEGER NOT NULL,
    CONSTRAINT question_topic_pk PRIMARY KEY (question_id, topic_id),
    CONSTRAINT question_topic_question_fk FOREIGN KEY (question_id) REFERENCES question
(id) ON UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT question_topic_topic_fk FOREIGN KEY (topic_id) REFERENCES topic (id) ON
UPDATE CASCADE ON DELETE CASCADE
);

CREATE TABLE question_rating (

```

```

        question_id INTEGER NOT NULL,
        member_id INTEGER NOT NULL,
        rate INTEGER NOT NULL CHECK (rate = 1 OR rate = -1),
        CONSTRAINT question_rating_pk PRIMARY KEY (question_id, member_id),
        CONSTRAINT question_rating_question_fk FOREIGN KEY (question_id) REFERENCES
question (id) ON UPDATE CASCADE ON DELETE CASCADE,
        CONSTRAINT question_rating_member_fk FOREIGN KEY (member_id) REFERENCES member (id)
ON UPDATE CASCADE ON DELETE CASCADE
);

```

```

CREATE TABLE answer_rating (
    answer_id INTEGER NOT NULL,
    member_id INTEGER NOT NULL,
    rate INTEGER NOT NULL CHECK (rate = 1 OR rate = -1),
    CONSTRAINT answer_rating_pk PRIMARY KEY (answer_id, member_id),
    CONSTRAINT answer_rating_answer_fk FOREIGN KEY (answer_id) REFERENCES answer (id)
ON UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT answer_rating_member_fk FOREIGN KEY (member_id) REFERENCES member (id)
ON UPDATE CASCADE ON DELETE CASCADE
);

```

```

CREATE TABLE comment_rating (
    comment_id INTEGER NOT NULL,
    member_id INTEGER NOT NULL,
    rate INTEGER NOT NULL CHECK (rate = 1 OR rate = -1),
    CONSTRAINT comment_rating_pk PRIMARY KEY (comment_id, member_id),
    CONSTRAINT comment_rating_comment_fk FOREIGN KEY (comment_id) REFERENCES comment
(id) ON UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT comment_rating_member_fk FOREIGN KEY (member_id) REFERENCES member (id)
ON UPDATE CASCADE ON DELETE CASCADE
);

```

```

CREATE TABLE question_report (
    question_id INTEGER NOT NULL,
    member_id INTEGER NOT NULL,
    "date" TIMESTAMP WITH TIME zone NOT NULL,
    reason text NOT NULL,
    CONSTRAINT question_report_pk PRIMARY KEY (question_id, member_id),
    CONSTRAINT question_report_question_fk FOREIGN KEY (question_id) REFERENCES
question (id) ON UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT question_report_member_fk FOREIGN KEY (member_id) REFERENCES member (id)
ON UPDATE CASCADE ON DELETE CASCADE
);

```

```

CREATE TABLE answer_report (
    answer_id INTEGER NOT NULL,
    member_id INTEGER NOT NULL,
    "date" TIMESTAMP WITH TIME zone NOT NULL,
    reason text NOT NULL,
    CONSTRAINT answer_report_pk PRIMARY KEY (answer_id, member_id),
    CONSTRAINT answer_report_answer_fk FOREIGN KEY (answer_id) REFERENCES answer (id)
ON UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT answer_report_member_fk FOREIGN KEY (member_id) REFERENCES member (id)
ON UPDATE CASCADE ON DELETE CASCADE

```

```

);

CREATE TABLE comment_report (
    comment_id INTEGER NOT NULL,
    member_id INTEGER NOT NULL,
    "date" TIMESTAMP WITH TIME zone NOT NULL,
    reason text NOT NULL,
    CONSTRAINT comment_report_pk PRIMARY KEY (comment_id, member_id),
    CONSTRAINT comment_report_comment_fk FOREIGN KEY (comment_id) REFERENCES comment
(id) ON UPDATE CASCADE ON DELETE CASCADE,
    CONSTRAINT comment_report_member_fk FOREIGN KEY (member_id) REFERENCES member (id)
ON UPDATE CASCADE ON DELETE CASCADE
);

-- Triggers
-- User cannot rate his own questions
CREATE FUNCTION member_question_rating() RETURNS TRIGGER AS $$
BEGIN
    IF NEW.member_id = (SELECT member.id FROM question INNER JOIN member ON
question.author_id = member.id WHERE question.id = NEW.question_id) THEN
        RAISE EXCEPTION 'A member cannot rate his own questions';
    END IF;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER member_question_rating
    BEFORE INSERT OR UPDATE OF member_id, question_id ON question_rating
    FOR EACH ROW
        EXECUTE PROCEDURE member_question_rating();

-- User cannot rate his own answers
CREATE FUNCTION member_answer_rating() RETURNS TRIGGER AS $$
BEGIN
    IF NEW.member_id = (SELECT member.id FROM answer INNER JOIN member ON answer.author_id =
member.id WHERE answer.id = NEW.answer_id) THEN
        RAISE EXCEPTION 'A member cannot rate his own answers';
    END IF;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER member_answer_rating
    BEFORE INSERT OR UPDATE OF member_id, answer_id ON answer_rating
    FOR EACH ROW
        EXECUTE PROCEDURE member_answer_rating();

-- User cannot rate his own comments
CREATE FUNCTION member_comment_rating() RETURNS TRIGGER AS $$
BEGIN
    IF NEW.member_id = (SELECT member.id FROM comment INNER JOIN member ON comment.author_id
= member.id WHERE comment.id = NEW.comment_id) THEN
        RAISE EXCEPTION 'A member cannot rate his own comments';
    END IF;

```

```

    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER member_comment_rating
    BEFORE INSERT OR UPDATE OF member_id, comment_id ON comment_rating
    FOR EACH ROW
        EXECUTE PROCEDURE member_comment_rating();

-- User cannot report his own questions
CREATE FUNCTION member_question_report() RETURNS TRIGGER AS $$
BEGIN
    IF NEW.member_id = (SELECT member.id FROM question INNER JOIN member ON
question.author_id = member.id WHERE question.id = NEW.question_id) THEN
        RAISE EXCEPTION 'A member cannot report his own questions';
    END IF;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER member_question_report
    BEFORE INSERT OR UPDATE OF member_id, question_id ON question_report
    FOR EACH ROW
        EXECUTE PROCEDURE member_question_report();

-- User cannot report his own answers
CREATE FUNCTION member_answer_report() RETURNS TRIGGER AS $$
BEGIN
    IF NEW.member_id = (SELECT member.id FROM answer INNER JOIN member ON answer.author_id =
member.id WHERE answer.id = NEW.answer_id) THEN
        RAISE EXCEPTION 'A member cannot report his own answers';
    END IF;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER member_answer_report
    BEFORE INSERT OR UPDATE OF member_id, answer_id ON answer_report
    FOR EACH ROW
        EXECUTE PROCEDURE member_answer_report();

-- User cannot report his own comments
CREATE FUNCTION member_comment_report() RETURNS TRIGGER AS $$
BEGIN
    IF NEW.member_id = (SELECT member.id FROM comment INNER JOIN member ON comment.author_id
= member.id WHERE comment.id = NEW.comment_id) THEN
        RAISE EXCEPTION 'A member cannot report his own comments';
    END IF;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER member_comment_report
    BEFORE INSERT OR UPDATE OF member_id, comment_id ON comment_report

```

```

FOR EACH ROW
    EXECUTE PROCEDURE member_comment_report();

--Unique email between admins and members
CREATE FUNCTION admin_member_email() RETURNS TRIGGER AS $$
BEGIN
    IF EXISTS(SELECT member.email FROM admin INNER JOIN member ON admin.email = member.email)
    THEN
        RAISE EXCEPTION 'Email must be unique';
    END IF;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER admin_email
    BEFORE INSERT OR UPDATE OF email ON admin
    FOR EACH ROW
        EXECUTE PROCEDURE admin_member_email();

CREATE TRIGGER member_email
    BEFORE INSERT OR UPDATE OF email ON member
    FOR EACH ROW
        EXECUTE PROCEDURE admin_member_email();

-- A question must always have at least 1 topic associated with it
CREATE FUNCTION question_topic() RETURNS TRIGGER AS $$
BEGIN
    IF NOT EXISTS (SELECT question.id FROM question_topic INNER JOIN question ON question.id
= question_topic.question_id WHERE question.id = OLD.question_id) THEN
        RAISE EXCEPTION 'Question must have at least 1 topic associated';
    END IF;
    RETURN OLD;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER question_topic
    BEFORE DELETE ON question_topic
    FOR EACH ROW
        EXECUTE PROCEDURE question_topic();

-- Answers' dates must be consistent
CREATE FUNCTION answer_date() RETURNS TRIGGER AS $$
BEGIN
    IF NEW.date < (SELECT question.date FROM question INNER JOIN answer ON answer.question_id
= question.id WHERE answer.id = NEW.id) THEN
        RAISE EXCEPTION 'Answer date must be further than its associated question';
    END IF;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER answer_date
    BEFORE INSERT OR UPDATE OF "date" ON answer
    FOR EACH ROW

```

```

EXECUTE PROCEDURE answer_date();

-- Comment' dates must be consistent
CREATE FUNCTION comment_date() RETURNS TRIGGER AS $$
BEGIN
    IF NEW.question_id IS NULL THEN --Comment is associated to an answer
        IF NEW.date < (SELECT answer.date FROM answer INNER JOIN comment ON
comment.answer_id = answer.id WHERE comment.id = NEW.id) THEN
            RAISE EXCEPTION 'Comment date must be further than its associated answer';
        END IF;
    ELSE --Comment is associated to a question
        IF NEW.date < (SELECT question.date FROM question INNER JOIN comment ON
comment.question_id = question.id WHERE comment.id = NEW.id) THEN
            RAISE EXCEPTION 'Comment date must be further than its associated question';
        END IF;
    END IF;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER comment_date
BEFORE INSERT OR UPDATE OF "date" ON comment
FOR EACH ROW
EXECUTE PROCEDURE comment_date();

-- Only moderators can flag members
CREATE FUNCTION moderator_flag() RETURNS TRIGGER AS $$
BEGIN
    IF (SELECT is_moderator FROM flag INNER JOIN member ON flag.moderator_id = member.id
WHERE flag.moderator_id = NEW.moderator_id AND flag.member_id = NEW.member_id) = false THEN
        RAISE EXCEPTION 'Only moderators can flag members';
    END IF;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER moderator_flag
BEFORE INSERT OR UPDATE OF moderator_id ON flag
FOR EACH ROW
EXECUTE PROCEDURE moderator_flag();

-- A user's score is updated when there is new activity from him (posts)
CREATE FUNCTION update_score_post() RETURNS TRIGGER AS $$
BEGIN
    IF TG_TABLE_NAME = 'question' THEN
        IF TG_OP = 'INSERT' THEN
            UPDATE member
            SET nr_questions = nr_questions + 1
            WHERE id = NEW.author_id;
        ELSIF TG_OP = 'DELETE' THEN
            UPDATE member
            SET nr_questions = nr_questions - 1
            WHERE id = OLD.author_id;
        END IF;
    END IF;
END

```



```

ELSIF TG_TABLE_NAME = 'answer' THEN
    IF TG_OP = 'INSERT' THEN
        UPDATE member
        SET nr_answers = nr_answers + 1
        WHERE id = NEW.author_id;
    ELSIF TG_OP = 'DELETE' THEN
        UPDATE member
        SET nr_answers = nr_answers - 1
        WHERE id = OLD.author_id;
    END IF;
END IF;

IF TG_OP = 'INSERT' THEN
    UPDATE member
    SET score =
round((1+positive_votes/(1+total_votes))*(0.4*nr_questions+0.6*nr_answers))
    WHERE id = NEW.author_id;
    RETURN NEW;
ELSE
    UPDATE member
    SET score =
round((1+positive_votes/(1+total_votes))*(0.4*nr_questions+0.6*nr_answers))
    WHERE id = OLD.author_id;
    RETURN OLD;
END IF;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER update_score_question
AFTER INSERT OR DELETE ON question
FOR EACH ROW
EXECUTE PROCEDURE update_score_post();

CREATE TRIGGER update_score_answer
AFTER INSERT OR DELETE ON answer
FOR EACH ROW
EXECUTE PROCEDURE update_score_post();

-- A member's score is updated when there is activity on his content
CREATE FUNCTION update_score_new_rating() RETURNS TRIGGER AS $$
DECLARE
    user_id int;
BEGIN
    IF TG_TABLE_NAME = 'question_rating' THEN
        user_id = (SELECT question.author_id FROM question WHERE question.id =
NEW.question_id);
    ELSIF TG_TABLE_NAME = 'answer_rating' THEN
        user_id = (SELECT answer.author_id FROM answer WHERE answer.id = NEW.answer_id);
    ELSE
        RAISE EXCEPTION 'Invalid operation triggering score update';
    END IF;
    IF NEW.rate = 1 THEN
        UPDATE member
        SET positive_votes = positive_votes + 1

```

```

        WHERE id = user_id;
    END IF;

    UPDATE member
    SET total_votes = total_votes + 1, score =
    round((1+positive_votes/(1+total_votes))*(0.4*nr_questions+0.6*nr_answers))
    WHERE id = user_id;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER update_score_new_question_rating
AFTER INSERT ON question_rating
FOR EACH ROW
    EXECUTE PROCEDURE update_score_new_rating();

CREATE TRIGGER update_score_new_answer_rating
AFTER INSERT ON answer_rating
FOR EACH ROW
    EXECUTE PROCEDURE update_score_new_rating();

CREATE FUNCTION update_score_update_rating() RETURNS TRIGGER AS $$
DECLARE
    user_id int;
BEGIN
    IF TG_TABLE_NAME = 'question_rating' THEN
        user_id = (SELECT question.author_id FROM question WHERE question.id =
NEW.question_id);
    ELSIF TG_TABLE_NAME = 'answer_rating' THEN
        user_id = (SELECT answer.author_id FROM answer WHERE answer.id = NEW.answer_id);
    ELSE
        RAISE EXCEPTION 'Invalid operation triggering score update';
    END IF;

    UPDATE member
    SET positive_votes = positive_votes + NEW.rate, score =
    round((1+positive_votes/(1+total_votes))*(0.4*nr_questions+0.6*nr_answers))
    WHERE id = user_id;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER update_score_update_question_rating
AFTER UPDATE OF rate ON question_rating
FOR EACH ROW
    EXECUTE PROCEDURE update_score_update_rating();

CREATE TRIGGER update_score_update_answer_rating
AFTER UPDATE OF rate ON answer_rating
FOR EACH ROW
    EXECUTE PROCEDURE update_score_update_rating();

CREATE FUNCTION update_score_delete_rating() RETURNS TRIGGER AS $$
DECLARE

```

```

    user_id int;
BEGIN
    IF TG_TABLE_NAME = 'question_rating' THEN
        user_id = (SELECT question.author_id FROM question WHERE question.id =
OLD.question_id);
    ELSIF TG_TABLE_NAME = 'answer_rating' THEN
        user_id = (SELECT answer.author_id FROM answer WHERE answer.id = OLD.answer_id);
    ELSE
        RAISE EXCEPTION 'Invalid operation triggering score update';
    END IF;
    IF OLD.rate = 1 THEN
        UPDATE member
        SET positive_votes = positive_votes - 1
        WHERE id = user_id;
    END IF;

    UPDATE member
    SET total_votes = total_votes - 1, score =
round((1+positive_votes/(1+total_votes))*(0.4*nr_questions+0.6*nr_answers))
    WHERE id = user_id;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER update_score_delete_question_rating
AFTER DELETE ON question_rating
FOR EACH ROW
    EXECUTE PROCEDURE update_score_delete_rating();

CREATE TRIGGER update_score_delete_answer_rating
AFTER DELETE ON answer_rating
FOR EACH ROW
    EXECUTE PROCEDURE update_score_delete_rating();

-- Columns subject to full text search must keep their ts_vectors updated
CREATE FUNCTION question_search_update() RETURNS TRIGGER AS $$
BEGIN
    NEW.search = setweight(to_tsvector('english', coalesce(NEW.title,'')), 'A') ||
setweight(to_tsvector('english', coalesce(NEW.content,'')), 'B');
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER question_search_update
BEFORE INSERT OR UPDATE OF title, content ON question
FOR EACH ROW
    EXECUTE PROCEDURE question_search_update();

CREATE FUNCTION answer_search_update() RETURNS TRIGGER AS $$
BEGIN
    NEW.search = to_tsvector('english', coalesce(NEW.content,''));
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

```

```

CREATE TRIGGER answer_search_update
  BEFORE INSERT OR UPDATE OF content ON answer
  FOR EACH ROW
    EXECUTE PROCEDURE answer_search_update();

-- A member is notified when someone else answers his question
CREATE FUNCTION notify_on_answer() RETURNS TRIGGER AS $$
BEGIN
  IF NEW.author_id <> (SELECT question.author_id FROM question INNER JOIN answer ON
question.id = answer.question_id WHERE answer.id = NEW.id) THEN --Avoid notification when
answering one's own question
    INSERT INTO notification (type, "date", content, member_id) VALUES ('Answer',
now(),
    (SELECT name FROM answer INNER JOIN member ON author_id = member.id WHERE answer.id
= NEW.id) || ' answered your question: ' || (SELECT title FROM question INNER JOIN answer
ON question.id = answer.question_id WHERE answer.id = NEW.id),
    (SELECT member.id FROM question INNER JOIN answer ON question.id =
answer.question_id INNER JOIN member ON question.author_id = member.id WHERE answer.id =
NEW.id));
  END IF;
  RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER notify_on_answer
  AFTER INSERT ON answer
  FOR EACH ROW
    EXECUTE PROCEDURE notify_on_answer();

-- A member is notified when someone else comments his question
CREATE FUNCTION notify_on_comment_question() RETURNS TRIGGER AS $$
BEGIN
  IF NEW.author_id <> (SELECT question.author_id FROM question INNER JOIN comment ON
question.id = comment.question_id WHERE comment.id = NEW.id) THEN --Avoid notification when
answering one's own question
    INSERT INTO notification (type, "date", content, member_id) VALUES ('Comment',
now(),
    (SELECT name FROM comment INNER JOIN member ON author_id = member.id WHERE
comment.id = NEW.id) || ' left a comment on your question: ' || (SELECT title FROM question
INNER JOIN comment ON question.id = comment.question_id WHERE comment.id = NEW.id),
    (SELECT member.id FROM question INNER JOIN comment ON question.id =
comment.question_id INNER JOIN member ON question.author_id = member.id WHERE comment.id =
NEW.id));
  END IF;
  RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER notify_on_comment_question
  AFTER INSERT ON comment
  FOR EACH ROW
  WHEN (NEW.question_id IS NOT NULL)
    EXECUTE PROCEDURE notify_on_comment_question();

```

```

-- A member is notified when someone else comments his answer
CREATE FUNCTION notify_on_comment_answer() RETURNS TRIGGER AS $$
BEGIN
    IF NEW.author_id <> (SELECT answer.author_id FROM answer INNER JOIN comment ON answer.id
= comment.answer_id WHERE comment.id = NEW.id) THEN --Avoid notification when answering
one's own question
        INSERT INTO notification (type, "date", content, member_id) VALUES ('Comment',
now(),
        (SELECT name FROM comment INNER JOIN member ON author_id = member.id WHERE
comment.id = NEW.id) || ' left a comment on your answer to the question ' || (SELECT title
FROM answer INNER JOIN comment ON answer.id = comment.answer_id INNER JOIN question ON
answer.question_id = question.id WHERE comment.id = NEW.id),
        (SELECT member.id FROM answer INNER JOIN comment ON answer.id = comment.answer_id
INNER JOIN member ON answer.author_id = member.id WHERE comment.id = NEW.id));
    END IF;
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER notify_on_comment_answer
AFTER INSERT ON comment
FOR EACH ROW
WHEN (NEW.answer_id IS NOT NULL)
EXECUTE PROCEDURE notify_on_comment_answer();

-- A member is notified when someone else upvotes his question
CREATE FUNCTION notify_on_question_rating() RETURNS TRIGGER AS $$
BEGIN
    INSERT INTO notification (type, "date", content, member_id) VALUES ('Rating', now(),
        (SELECT name from question_rating INNER JOIN member ON question_rating.member_id =
member.id WHERE member.id = NEW.member_id) || ' upvoted your question: ' || (SELECT title
FROM question INNER JOIN question_rating ON question_rating.question_id = question.id WHERE
question.id = NEW.question_id),
        (SELECT member.id FROM question INNER JOIN member ON question.author_id = member.id
WHERE question.id = NEW.question_id));
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

CREATE TRIGGER notify_on_question_rating
AFTER INSERT ON question_rating
FOR EACH ROW
WHEN (NEW.rate = 1)
EXECUTE PROCEDURE notify_on_question_rating();

-- A member is notified when someone else upvotes his answer
CREATE FUNCTION notify_on_answer_rating() RETURNS TRIGGER AS $$
BEGIN
    INSERT INTO notification (type, "date", content, member_id) VALUES ('Rating', now(),
        (SELECT name FROM answer_rating INNER JOIN member ON question_rating.member_id =
member.id WHERE member.id = NEW.member_id) || ' upvoted your answer to the question ' ||
(SELECT title FROM answer INNER JOIN question ON answer.question_id = question.id WHERE
answer.id = NEW.answer_id),

```

```

        (SELECT member.id FROM answer INNER JOIN member ON answer.author_id = member.id
WHERE answer.id = NEW.answer_id));
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

```

```

CREATE TRIGGER notify_on_answer_rating
    AFTER INSERT ON answer_rating
    FOR EACH ROW
    WHEN (NEW.rate = 1)
        EXECUTE PROCEDURE notify_on_answer_rating();

```

```

-- A member is notified when someone else follows him
CREATE FUNCTION notify_on_follow() RETURNS TRIGGER AS $$
BEGIN
    INSERT INTO notification (type, "date", content, member_id) VALUES ('Follow', now(),
        (SELECT name FROM follow_member INNER JOIN member ON follow_member.follower_id =
member.id WHERE follow_member.following_id = NEW.following_id AND member.id =
NEW.follower_id) || ' followed you',
        NEW.following_id);
    RETURN NEW;
END
$$ LANGUAGE 'plpgsql';

```

```

CREATE TRIGGER notify_on_follow
    AFTER INSERT ON follow_member
    FOR EACH ROW
        EXECUTE PROCEDURE notify_on_follow();

```

```

--Indexes
CREATE INDEX idx_question_author_id ON question USING btree (author_id);
CREATE INDEX idx_answer_author_id ON answer USING btree (author_id);
CREATE INDEX idx_answer_question_id ON answer USING btree (question_id);
CREATE INDEX idx_comment_author_id ON comment USING btree (author_id);
CREATE INDEX idx_member_score ON member USING btree (score);
CREATE INDEX idx_comment_question_id ON comment USING btree (question_id);
CREATE INDEX idx_comment_answer_id ON comment USING btree (answer_id);
CREATE INDEX idx_question_date ON question USING btree ("date");
CREATE INDEX idx_answer_date ON answer USING btree ("date");
CREATE INDEX question_search_index ON question USING GIST (search);
CREATE INDEX answer_search_index ON answer USING GIST (search);

```

```

--Populate
INSERT INTO admin (email, password) VALUES ('admin1@presto.com', 'GPPAJfDFsN');
INSERT INTO admin (email, password) VALUES ('admin2@presto.com', 'oKYrN768SX');

```

```

INSERT INTO country (name) VALUES ('Falkland Islands');
INSERT INTO country (name) VALUES ('Nicaragua');
INSERT INTO country (name) VALUES ('Colombia');
INSERT INTO country (name) VALUES ('Austria');
INSERT INTO country (name) VALUES ('Tonga');
INSERT INTO country (name) VALUES ('Lebanon');
INSERT INTO country (name) VALUES ('Sierra Leone');
INSERT INTO country (name) VALUES ('Bouvet Island');

```

```

INSERT INTO country (name) VALUES ('Costa Rica');
INSERT INTO country (name) VALUES ('Suriname');
INSERT INTO country (name) VALUES ('Wallis and Futuna');
INSERT INTO country (name) VALUES ('Lesotho');
INSERT INTO country (name) VALUES ('Estonia');
INSERT INTO country (name) VALUES ('Djibouti');
INSERT INTO country (name) VALUES ('New Zealand');

```

```

insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('blarby0', 'blarby0@marketwatch.com', 's0z84N0HimT', 'Brenden Larby',
'Staff Accountant II',
'https://robohash.org/occaecatimolestiaenam.png?size=200x200&set=set1', false, 11);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('jgaish1', 'jgaish1@tumblr.com', 'nxf6lRsH', 'Jeffy Gaish', 'Help Desk
Operator', 'https://robohash.org/veniamvoluptatemest.png?size=200x200&set=set1', false, 8);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('aoxer2', 'aoxer2@free.fr', 'QSEsap8tfIaw', 'Aprilette Oxer', 'Cost
Accountant', 'https://robohash.org/etdelenitirerum.png?size=200x200&set=set1', true, 11);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('cmcreath3', 'cmcreath3@instagram.com', 'siAwhTq9Sx', 'Cliff McReath',
'Physical Therapy Assistant', 'https://robohash.org/suntquosex.png?size=200x200&set=set1',
false, 6);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('aemmett4', 'aemmett4@yahoo.com', 'ojYbxSm3C7', 'Alethea Emmett',
'Financial Advisor',
'https://robohash.org/velaspernaturasperiores.png?size=200x200&set=set1', false, 11);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('mblonfield5', 'mblonfield5@shareasale.com', 'OymZqG', 'Marlin
Blonfield', 'Desktop Support Technician',
'https://robohash.org/sedquisipsa.png?size=200x200&set=set1', true, 1);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('adono6', 'adono6@woothemes.com', '5zbnk40PT', 'Adelheid Dono', 'Civil
Engineer', 'https://robohash.org/ipsampariaturdeserunt.png?size=200x200&set=set1', false,
3);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('ecuddy7', 'ecuddy7@cmu.edu', 'I8Q1n3Ld', 'Emylee Cuddy', 'Desktop
Support Technician', 'https://robohash.org/temporedolorquam.png?size=200x200&set=set1',
false, 2);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('jzanetello8', 'jzanetello8@howstuffworks.com', 'URfT941h', 'Jefferson
Zanetello', 'Business Systems Development Analyst',
'https://robohash.org/fugiatquisnon.png?size=200x200&set=set1', false, 9);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('rsolesbury9', 'rsolesbury9@reddit.com', 'IhGFSutKvdME', 'Rickard
Solesbury', 'Research Nurse',
'https://robohash.org/quodatquedicta.png?size=200x200&set=set1', true, 6);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('mburcha', 'mburcha@chron.com', 'QPsGhSRlxv', 'Mickie Burch',
'Community Outreach Specialist',
'https://robohash.org/expeditalaboreblanditiis.png?size=200x200&set=set1', true, 5);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('obarthotb', 'obarthotb@sakura.ne.jp', 'pdnG3secLzq', 'Oneida Barthot',
'Speech Pathologist', 'https://robohash.org/consequunturestin.png?size=200x200&set=set1',
false, 3);

```

```

insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('czolinic', 'czolinic@xinhuanet.com', 'aleli9RSAz', 'Clarisse Zolini',
'Nuclear Power Engineer', 'https://robohash.org/quiasolutaomnis.png?size=200x200&set=set1',
true, 5);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('rmapstoned', 'rmapstoned@biblegateway.com', 'lVTCiL', 'Reynard
Mapstone', 'Payment Adjustment Coordinator',
'https://robohash.org/repellatsitet.png?size=200x200&set=set1', true, 12);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('cgoldbye', 'cgoldbye@netscape.com', 'e2rjWt', 'Catherina Goldby',
'Editor', 'https://robohash.org/possimusnonplaceat.png?size=200x200&set=set1', false, 3);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('smussingtonf', 'smussingtonf@topsy.com', 'adRkX280qYjl', 'Sebastiano
Mussington', 'Assistant Manager',
'https://robohash.org/etdoloreseaque.png?size=200x200&set=set1', false, 7);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('mroparsg', 'mroparsg@hibu.com', '01m6eq22nT', 'Martguerita Ropars',
'Office Assistant II', 'https://robohash.org/etquia.png?size=200x200&set=set1', false, 8);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('lletthemh', 'lletthemh@goo.gl', 'pOdUra1jBHaP', 'Lilllie Lethem', 'Civil
Engineer', 'https://robohash.org/impeditquidemrepellendus.png?size=200x200&set=set1',
false, 4);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('szavattarii', 'szavattarii@yellowpages.com', 'DuI9XhTRQdP', 'Sonya
Zavattari', 'VP Marketing',
'https://robohash.org/possimusestconsequatur.png?size=200x200&set=set1', true, 15);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('aklimmekj', 'aklimmekj@sbwire.com', '1e0XtPUL', 'Ambrosius Klimmek',
'Community Outreach Specialist',
'https://robohash.org/minusaliasquasi.png?size=200x200&set=set1', true, 12);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('closebyk', 'closebyk@lund1.de', 'qgFsZZNdiIi', 'Clem Loseby', 'Web
Developer I', 'https://robohash.org/quidolorpariatum.png?size=200x200&set=set1', false, 3);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('fbosomworthl', 'fbosomworthl@pbs.org', 'WScn0Uzhy0cn', 'Flem
Bosomworth', 'Quality Engineer',
'https://robohash.org/quidemeumsit.png?size=200x200&set=set1', false, 3);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('sromanetm', 'sromanetm@goo.gl', 'ClPx18M1101J', 'Suzann Romanet', 'VP
Accounting', 'https://robohash.org/minimaimpeditest.png?size=200x200&set=set1', false, 2);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('dcollyn', 'dcollyn@slate.com', 'zIPvmTQ', 'Daron Colly', 'Operator',
'https://robohash.org/molestiasplaceatrerum.png?size=200x200&set=set1', false, 6);
insert into member (username, email, password, name, bio, profile_picture, is_moderator,
country_id) values ('aalvaradoo', 'aalvaradoo@diigo.com', 'G0KAF5kWr2eo', 'Amanda
Alvarado', 'Budget/Accounting Analyst IV',
'https://robohash.org/etsimiliquevoluptas.png?size=200x200&set=set1', true, 8);

insert into flag (member_id, moderator_id, reason, "date") values (24, 25, 'Rude language',
'2017-09-01 18:17:33');
insert into flag (member_id, moderator_id, reason, "date") values (2, 25, 'Unecessary
vocabulary', '2017-06-26 11:06:11');
insert into flag (member_id, moderator_id, reason, "date") values (21, 25, 'Racist
comments', '2017-04-23 09:28:44');

```



```
insert into flag (member_id, moderator_id, reason, "date") values (24, 10, 'Constant off
topic content', '2017-10-25 15:15:15');
insert into flag (member_id, moderator_id, reason, "date") values (24, 20, 'Slept too
much', '2017-08-23 04:05:42');
```

```
insert into follow_member (follower_id, following_id) values (12, 24);
insert into follow_member (follower_id, following_id) values (12, 7);
insert into follow_member (follower_id, following_id) values (14, 2);
insert into follow_member (follower_id, following_id) values (24, 5);
insert into follow_member (follower_id, following_id) values (9, 21);
insert into follow_member (follower_id, following_id) values (13, 12);
insert into follow_member (follower_id, following_id) values (19, 13);
insert into follow_member (follower_id, following_id) values (9, 17);
insert into follow_member (follower_id, following_id) values (5, 3);
insert into follow_member (follower_id, following_id) values (18, 11);
insert into follow_member (follower_id, following_id) values (11, 23);
insert into follow_member (follower_id, following_id) values (3, 17);
insert into follow_member (follower_id, following_id) values (11, 4);
insert into follow_member (follower_id, following_id) values (12, 23);
insert into follow_member (follower_id, following_id) values (23, 3);
insert into follow_member (follower_id, following_id) values (16, 2);
insert into follow_member (follower_id, following_id) values (12, 16);
insert into follow_member (follower_id, following_id) values (7, 6);
insert into follow_member (follower_id, following_id) values (18, 22);
insert into follow_member (follower_id, following_id) values (3, 9);
insert into follow_member (follower_id, following_id) values (11, 3);
insert into follow_member (follower_id, following_id) values (4, 18);
insert into follow_member (follower_id, following_id) values (13, 19);
insert into follow_member (follower_id, following_id) values (11, 22);
insert into follow_member (follower_id, following_id) values (21, 7);
insert into follow_member (follower_id, following_id) values (8, 3);
insert into follow_member (follower_id, following_id) values (21, 10);
insert into follow_member (follower_id, following_id) values (15, 22);
insert into follow_member (follower_id, following_id) values (13, 25);
insert into follow_member (follower_id, following_id) values (8, 5);
insert into follow_member (follower_id, following_id) values (7, 25);
insert into follow_member (follower_id, following_id) values (23, 24);
insert into follow_member (follower_id, following_id) values (16, 11);
insert into follow_member (follower_id, following_id) values (2, 11);
insert into follow_member (follower_id, following_id) values (8, 16);
insert into follow_member (follower_id, following_id) values (13, 3);
insert into follow_member (follower_id, following_id) values (6, 21);
insert into follow_member (follower_id, following_id) values (23, 22);
insert into follow_member (follower_id, following_id) values (16, 8);
insert into follow_member (follower_id, following_id) values (20, 4);
insert into follow_member (follower_id, following_id) values (7, 9);
insert into follow_member (follower_id, following_id) values (8, 4);
insert into follow_member (follower_id, following_id) values (6, 12);
insert into follow_member (follower_id, following_id) values (3, 22);
insert into follow_member (follower_id, following_id) values (18, 2);
insert into follow_member (follower_id, following_id) values (9, 12);
insert into follow_member (follower_id, following_id) values (21, 12);
insert into follow_member (follower_id, following_id) values (5, 12);
insert into follow_member (follower_id, following_id) values (10, 25);
```

[illegible]

```

insert into follow_member (follower_id, following_id) values (13, 21);
insert into follow_member (follower_id, following_id) values (21, 16);
insert into follow_member (follower_id, following_id) values (17, 4);
insert into follow_member (follower_id, following_id) values (21, 8);
insert into follow_member (follower_id, following_id) values (24, 22);
insert into follow_member (follower_id, following_id) values (24, 7);
insert into follow_member (follower_id, following_id) values (19, 14);
insert into follow_member (follower_id, following_id) values (21, 13);
insert into follow_member (follower_id, following_id) values (12, 3);
insert into follow_member (follower_id, following_id) values (14, 1);
insert into follow_member (follower_id, following_id) values (23, 8);
insert into follow_member (follower_id, following_id) values (20, 19);
insert into follow_member (follower_id, following_id) values (23, 2);
insert into follow_member (follower_id, following_id) values (3, 20);
insert into follow_member (follower_id, following_id) values (6, 4);
insert into follow_member (follower_id, following_id) values (25, 23);
insert into follow_member (follower_id, following_id) values (24, 18);
insert into follow_member (follower_id, following_id) values (15, 1);
insert into follow_member (follower_id, following_id) values (7, 1);
insert into follow_member (follower_id, following_id) values (17, 22);
insert into follow_member (follower_id, following_id) values (23, 15);
insert into follow_member (follower_id, following_id) values (22, 18);
insert into follow_member (follower_id, following_id) values (9, 22);
insert into follow_member (follower_id, following_id) values (3, 8);
insert into follow_member (follower_id, following_id) values (24, 10);
insert into follow_member (follower_id, following_id) values (14, 9);

```

```

insert into topic (name) values ('Outdoors');
insert into topic (name) values ('Sports');
insert into topic (name) values ('Computers');
insert into topic (name) values ('Electronics');
insert into topic (name) values ('Tools');
insert into topic (name) values ('Toys');
insert into topic (name) values ('Programming');
insert into topic (name) values ('Industrial');
insert into topic (name) values ('Baby');
insert into topic (name) values ('Books');
insert into topic (name) values ('Jewelery');
insert into topic (name) values ('Movies');
insert into topic (name) values ('Music');
insert into topic (name) values ('College');
insert into topic (name) values ('Education');
insert into topic (name) values ('Home');
insert into topic (name) values ('Children');
insert into topic (name) values ('Garden');
insert into topic (name) values ('Hardware');
insert into topic (name) values ('Grocery');
insert into topic (name) values ('Automotive');
insert into topic (name) values ('Cinema');
insert into topic (name) values ('Life');
insert into topic (name) values ('Scheme');
insert into topic (name) values ('Games');
insert into topic (name) values ('Chores');
insert into topic (name) values ('Kids');

```

```
insert into topic (name) values ('Shoes');
insert into topic (name) values ('Shopping');
insert into topic (name) values ('SQL');
insert into topic (name) values ('Java');
insert into topic (name) values ('Databases');
insert into topic (name) values ('Automotive');
insert into topic (name) values ('PC Gaming');
insert into topic (name) values ('Sex');
insert into topic (name) values ('PostgreSQL');
insert into topic (name) values ('Health');
insert into topic (name) values ('SQLite');
insert into topic (name) values ('C++');
insert into topic (name) values ('Home Stuff');
insert into topic (name) values ('Piracy');
```

```
insert into follow_topic (topic_id, member_id) values (9, 17);
insert into follow_topic (topic_id, member_id) values (29, 3);
insert into follow_topic (topic_id, member_id) values (8, 20);
insert into follow_topic (topic_id, member_id) values (33, 10);
insert into follow_topic (topic_id, member_id) values (19, 14);
insert into follow_topic (topic_id, member_id) values (37, 8);
insert into follow_topic (topic_id, member_id) values (8, 4);
insert into follow_topic (topic_id, member_id) values (3, 22);
insert into follow_topic (topic_id, member_id) values (38, 3);
insert into follow_topic (topic_id, member_id) values (3, 7);
insert into follow_topic (topic_id, member_id) values (28, 6);
insert into follow_topic (topic_id, member_id) values (36, 9);
insert into follow_topic (topic_id, member_id) values (22, 2);
insert into follow_topic (topic_id, member_id) values (3, 23);
insert into follow_topic (topic_id, member_id) values (1, 24);
insert into follow_topic (topic_id, member_id) values (19, 5);
insert into follow_topic (topic_id, member_id) values (25, 10);
insert into follow_topic (topic_id, member_id) values (34, 12);
insert into follow_topic (topic_id, member_id) values (25, 9);
insert into follow_topic (topic_id, member_id) values (36, 22);
insert into follow_topic (topic_id, member_id) values (28, 10);
insert into follow_topic (topic_id, member_id) values (36, 24);
insert into follow_topic (topic_id, member_id) values (31, 14);
insert into follow_topic (topic_id, member_id) values (16, 12);
insert into follow_topic (topic_id, member_id) values (14, 5);
insert into follow_topic (topic_id, member_id) values (1, 1);
insert into follow_topic (topic_id, member_id) values (11, 23);
insert into follow_topic (topic_id, member_id) values (29, 23);
insert into follow_topic (topic_id, member_id) values (27, 12);
insert into follow_topic (topic_id, member_id) values (28, 12);
insert into follow_topic (topic_id, member_id) values (5, 18);
insert into follow_topic (topic_id, member_id) values (31, 18);
insert into follow_topic (topic_id, member_id) values (11, 21);
insert into follow_topic (topic_id, member_id) values (22, 18);
insert into follow_topic (topic_id, member_id) values (12, 13);
insert into follow_topic (topic_id, member_id) values (10, 20);
insert into follow_topic (topic_id, member_id) values (2, 6);
insert into follow_topic (topic_id, member_id) values (1, 6);
insert into follow_topic (topic_id, member_id) values (9, 2);
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insert into follow_topic (topic_id, member_id) values (37, 21);
insert into follow_topic (topic_id, member_id) values (33, 8);
insert into follow_topic (topic_id, member_id) values (27, 16);
insert into follow_topic (topic_id, member_id) values (41, 14);
insert into follow_topic (topic_id, member_id) values (27, 7);
insert into follow_topic (topic_id, member_id) values (17, 24);
insert into follow_topic (topic_id, member_id) values (29, 21);
insert into follow_topic (topic_id, member_id) values (37, 6);
insert into follow_topic (topic_id, member_id) values (7, 15);
insert into follow_topic (topic_id, member_id) values (38, 6);
insert into follow_topic (topic_id, member_id) values (4, 7);

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insert into question (title, content, "date", views, author_id) values ('Fusce congue, diam id ornare imperdiet, sapien urna pretium nisl, ut volutpat sapien arcu sed augue?', 'Morbi porttitor lorem id ligula. Suspendisse ornare consequat lectus. In est risus, auctor sed, tristique in, tempus sit amet, sem.', '2017-04-19 16:23:48', 50598, 14);
insert into question (title, content, "date", views, author_id) values ('Quisque erat eros, viverra eget, congue eget, semper rutrum, nulla?', 'Phasellus in felis. Donec semper sapien a libero. Nam dui.', '2017-04-18 01:39:19', 14837, 3);
insert into question (title, content, "date", views, author_id) values ('Nam nulla?', 'Curabitur in libero ut massa volutpat convallis. Morbi odio odio, elementum eu, interdum eu, tincidunt in, leo. Maecenas pulvinar lobortis est.', '2017-04-05 17:37:55', 81757, 23);
insert into question (title, content, "date", views, author_id) values ('Maecenas pulvinar lobortis est?', 'Morbi non lectus. Aliquam sit amet diam in magna bibendum imperdiet. Nullam orci pede, venenatis non, sodales sed, tincidunt eu, felis.', '2017-04-16 00:11:55', 48667, 20);
insert into question (title, content, "date", views, author_id) values ('Pellentesque eget nunc?', 'Etiam vel augue. Vestibulum rutrum rutrum neque. Aenean auctor gravida sem.', '2017-04-07 10:15:35', 44880, 24);
insert into question (title, content, "date", views, author_id) values ('Curabitur convallis?', 'Vestibulum quam sapien, varius ut, blandit non, interdum in, ante. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Duis faucibus accumsan odio. Curabitur convallis.', '2017-04-29 15:13:55', 34568, 19);
insert into question (title, content, "date", views, author_id) values ('Aliquam non mauris?', 'Nullam porttitor lacus at turpis. Donec posuere metus vitae ipsum. Aliquam non mauris.', '2017-04-14 08:13:54', 70405, 4);
insert into question (title, content, "date", views, author_id) values ('Proin leo odio, porttitor id, consequat in, consequat ut, nulla?', 'Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.', '2017-04-07 19:39:23', 7261, 10);
insert into question (title, content, "date", views, author_id) values ('Integer ac neque?', 'In sagittis dui vel nisl. Duis ac nibh. Fusce lacus purus, aliquet at, feugiat non, pretium quis, lectus.', '2017-04-01 02:51:00', 37955, 19);
insert into question (title, content, "date", views, author_id) values ('Curabitur at ipsum ac tellus semper interdum?', 'Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus id, turpis. Integer aliquet, massa id lobortis convallis, tortor risus dapibus augue, vel accumsan tellus nisi eu orci. Mauris lacinia sapien quis libero.', '2017-03-31 22:49:29', 21027, 23);
insert into question (title, content, "date", views, author_id) values ('Fusce posuere felis sed lacus?', 'In hac habitasse platea dictumst. Morbi vestibulum, velit id pretium iaculis, diam erat fermentum justo, nec condimentum neque sapien placerat ante. Nulla justo.', '2017-04-12 12:09:52', 11428, 18);

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insert into question (title, content, "date", views, author_id) values ('Sed vel enim sit amet nunc viverra dapibus?', 'Duis aliquam convallis nunc. Proin at turpis a pede posuere nonummy. Integer non velit.', '2017-04-07 18:08:10', 66009, 7);
insert into question (title, content, "date", views, author_id) values ('Vestibulum quam sapien, varius ut, blandit non, interdum in, ante?', 'Maecenas tristique, est et tempus semper, est quam pharetra magna, ac consequat metus sapien ut nunc. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Mauris viverra diam vitae quam. Suspendisse potenti.', '2017-04-23 19:55:22', 68298, 16);
insert into question (title, content, "date", views, author_id) values ('Integer tincidunt ante vel ipsum?', 'Aenean lectus. Pellentesque eget nunc. Donec quis orci eget orci vehicula condimentum.', '2017-04-07 13:09:47', 50172, 1);
insert into question (title, content, "date", views, author_id) values ('Fusce lacus purus, aliquet at, feugiat non, pretium quis, lectus?', 'Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus.', '2017-04-20 08:01:23', 57098, 8);
insert into question (title, content, "date", views, author_id) values ('Morbi vel lectus in quam fringilla rhoncus?', 'Praesent id massa id nisl venenatis lacinia. Aenean sit amet justo. Morbi ut odio.', '2017-04-20 00:29:42', 30205, 14);
insert into question (title, content, "date", views, author_id) values ('Duis bibendum, felis sed interdum venenatis, turpis enim blandit mi, in porttitor pede justo eu massa?', 'Fusce posuere felis sed lacus. Morbi sem mauris, laoreet ut, rhoncus aliquet, pulvinar sed, nisl. Nunc rhoncus dui vel sem.', '2017-04-26 21:27:43', 30180, 20);
insert into question (title, content, "date", views, author_id) values ('Nulla tellus?', 'Suspendisse potenti. In eleifend quam a odio. In hac habitasse platea dictumst.', '2017-04-28 03:33:42', 49142, 20);
insert into question (title, content, "date", views, author_id) values ('Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Duis faucibus accumsan odio?', 'Curabitur at ipsum ac tellus semper interdum. Mauris ullamcorper purus sit amet nulla. Quisque arcu libero, rutrum ac, lobortis vel, dapibus at, diam.', '2017-04-28 01:56:14', 54059, 21);
insert into question (title, content, "date", views, author_id) values ('Quisque ut erat?', 'Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus id, turpis. Integer aliquet, massa id lobortis convallis, tortor risus dapibus augue, vel accumsan tellus nisi eu orci. Mauris lacinia sapien quis libero.', '2017-04-19 05:51:49', 29456, 11);
insert into question (title, content, "date", views, author_id) values ('Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Nulla dapibus dolor vel est?', 'In congue. Etiam justo. Etiam pretium iaculis justo.', '2017-04-27 16:29:35', 41590, 24);
insert into question (title, content, "date", views, author_id) values ('Fusce posuere felis sed lacus?', 'Quisque id justo sit amet sapien dignissim vestibulum. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Nulla dapibus dolor vel est. Donec odio justo, sollicitudin ut, suscipit a, feugiat et, eros.', '2017-04-14 18:35:09', 76618, 8);
insert into question (title, content, "date", views, author_id) values ('Nunc purus?', 'Morbi non lectus. Aliquam sit amet diam in magna bibendum imperdiet. Nullam orci pede, venenatis non, sodales sed, tincidunt eu, felis.', '2017-03-30 00:11:46', 41155, 25);
insert into question (title, content, "date", views, author_id) values ('Quisque erat eros, viverra eget, congue eget, semper rutrum, nulla?', 'Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.', '2017-04-04 14:46:51', 70809, 10);
insert into question (title, content, "date", views, author_id) values ('In est risus, auctor sed, tristique in, tempus sit amet, sem?', 'Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin risus. Praesent lectus.', '2017-04-10 04:18:42', 10394, 23);
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insert into question (title, content, "date", views, author_id) values ('Maecenas rhoncus aliquam lacus?', 'Suspendisse potenti. In eleifend quam a odio. In hac habitasse platea dictumst.', '2017-04-18 00:29:19', 23620, 2);
insert into question (title, content, "date", views, author_id) values ('Aenean auctor gravida sem?', 'Praesent blandit. Nam nulla. Integer pede justo, lacinia eget, tincidunt eget, tempus vel, pede.', '2017-04-09 02:26:27', 67867, 14);
insert into question (title, content, "date", views, author_id) values ('Duis bibendum?', 'Morbi porttitor lorem id ligula. Suspendisse ornare consequat lectus. In est risus, auctor sed, tristique in, tempus sit amet, sem.', '2017-04-09 11:11:35', 77269, 5);
insert into question (title, content, "date", views, author_id) values ('Integer pede justo, lacinia eget, tincidunt eget, tempus vel, pede?', 'Duis aliquam convallis nunc. Proin at turpis a pede posuere nonummy. Integer non velit.', '2017-03-31 18:30:44', 43702, 17);
insert into question (title, content, "date", views, author_id) values ('Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Duis faucibus accumsan odio?', 'Duis aliquam convallis nunc. Proin at turpis a pede posuere nonummy. Integer non velit.', '2017-04-16 00:05:38', 53537, 15);
insert into question (title, content, "date", views, author_id) values ('Praesent blandit?', 'Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh.', '2017-04-10 16:59:56', 51795, 21);
insert into question (title, content, "date", views, author_id) values ('Nam dui?', 'Proin leo odio, porttitor id, consequat in, consequat ut, nulla. Sed accumsan felis. Ut at dolor quis odio consequat varius.', '2017-04-07 02:54:59', 76661, 8);
insert into question (title, content, "date", views, author_id) values ('Integer tincidunt ante vel ipsum?', 'Vestibulum ac est lacinia nisi venenatis tristique. Fusce congue, diam id ornare imperdiet, sapien urna pretium nisl, ut volutpat sapien arcu sed augue. Aliquam erat volutpat.', '2017-04-14 02:11:09', 58520, 1);
insert into question (title, content, "date", views, author_id) values ('Etiam faucibus cursus urna?', 'Proin eu mi. Nulla ac enim. In tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem, vitae mattis nibh ligula nec sem.', '2017-04-17 07:29:25', 54273, 23);
insert into question (title, content, "date", views, author_id) values ('Aenean fermentum?', 'Fusce posuere felis sed lacus. Morbi sem mauris, laoreet ut, rhoncus aliquet, pulvinar sed, nisl. Nunc rhoncus dui vel sem.', '2017-04-08 07:29:20', 77418, 25);
insert into question (title, content, "date", views, author_id) values ('Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus?', 'Praesent id massa id nisl venenatis lacinia. Aenean sit amet justo. Morbi ut odio.', '2017-04-14 21:28:37', 17967, 10);
insert into question (title, content, "date", views, author_id) values ('Maecenas tincidunt lacus at velit?', 'Maecenas leo odio, condimentum id, luctus nec, molestie sed, justo. Pellentesque viverra pede ac diam. Cras pellentesque volutpat dui.', '2017-04-12 03:23:09', 75859, 25);
insert into question (title, content, "date", views, author_id) values ('Morbi non lectus?', 'Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh.', '2017-04-23 01:57:00', 38757, 19);
insert into question (title, content, "date", views, author_id) values ('Nulla nisl?', 'Aliquam quis turpis eget elit sodales scelerisque. Mauris sit amet eros. Suspendisse accumsan tortor quis turpis.', '2017-03-30 01:45:05', 14924, 18);
insert into question (title, content, "date", views, author_id) values ('Duis bibendum?', 'Proin leo odio, porttitor id, consequat in, consequat ut, nulla. Sed accumsan felis. Ut at dolor quis odio consequat varius.', '2017-04-21 05:33:01', 59618, 11);
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insert into answer (content, "date", views, question_id, author_id) values ('In hac habitasse platea dictumst. Morbi vestibulum, velit id pretium iaculis, diam erat fermentum justo, nec condimentum neque sapien placerat ante. Nulla justo.

Aliquam quis turpis eget elit sodales scelerisque. Mauris sit amet eros. Suspendisse accumsan tortor quis turpis.

Sed ante. Vivamus tortor. Duis mattis egestas metus.

Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh.', '2017-05-09 13:05:19', 33295, 15, 1);

insert into answer (content, "date", views, question_id, author_id) values ('In congue. Etiam justo. Etiam pretium iaculis justo.

In hac habitasse platea dictumst. Etiam faucibus cursus urna. Ut tellus.

Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi.

Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque.', '2017-05-04 05:20:21', 55477, 7, 8);

insert into answer (content, "date", views, question_id, author_id) values ('Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi.

Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque.', '2017-05-25 00:16:19', 46955, 1, 3);

insert into answer (content, "date", views, question_id, author_id) values ('Integer ac leo. Pellentesque ultrices mattis odio. Donec vitae nisi.', '2017-05-08 15:49:17', 69240, 34, 18);

insert into answer (content, "date", views, question_id, author_id) values ('Etiam vel augue. Vestibulum rutrum rutrum neque. Aenean auctor gravida sem.

Praesent id massa id nisl venenatis lacinia. Aenean sit amet justo. Morbi ut odio.

Cras mi pede, malesuada in, imperdiet et, commodo vulputate, justo. In blandit ultrices enim. Lorem ipsum dolor sit amet, consectetur adipiscing elit.', '2017-05-20 02:08:21', 65909, 20, 19);

insert into answer (content, "date", views, question_id, author_id) values ('In sagittis dui vel nisl. Duis ac nibh. Fusce lacus purus, aliquet at, feugiat non, pretium quis, lectus.

Suspendisse potenti. In eleifend quam a odio. In hac habitasse platea dictumst.

Maecenas ut massa quis augue luctus tincidunt. Nulla mollis molestie lorem. Quisque ut erat.', '2017-05-13 12:41:21', 98505, 11, 19);

insert into answer (content, "date", views, question_id, author_id) values ('Sed sagittis. Nam congue, risus semper porta volutpat, quam pede lobortis ligula, sit amet eleifend pede libero quis orci. Nullam molestie nibh in lectus.

Pellentesque at nulla. Suspendisse potenti. Cras in purus eu magna vulputate luctus.', '2017-05-03 06:48:37', 74674, 21, 20);

insert into answer (content, "date", views, question_id, author_id) values ('Quisque id justo sit amet sapien dignissim vestibulum. Vestibulum ante ipsum primis in faucibus orci

luctus et ultrices posuere cubilia Curae; Nulla dapibus dolor vel est. Donec odio justo, sollicitudin ut, suscipit a, feugiat et, eros.

Vestibulum ac est lacinia nisi venenatis tristique. Fusce congue, diam id ornare imperdiet, sapien urna pretium nisl, ut volutpat sapien arcu sed augue. Aliquam erat volutpat.

In congue. Etiam justo. Etiam pretium iaculis justo.

In hac habitasse platea dictumst. Etiam faucibus cursus urna. Ut tellus.', '2017-05-22 11:32:39', 32710, 13, 24);
insert into answer (content, "date", views, question_id, author_id) values ('Proin leo odio, porttitor id, consequat in, consequat ut, nulla. Sed accumsan felis. Ut at dolor quis odio consequat varius.

Integer ac leo. Pellentesque ultrices mattis odio. Donec vitae nisi.

Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacus.', '2017-05-15 17:01:09', 77060, 3, 24);
insert into answer (content, "date", views, question_id, author_id) values ('Sed sagittis. Nam congue, risus semper porta volutpat, quam pede lobortis ligula, sit amet eleifend pede libero quis orci. Nullam molestie nibh in lectus.

Pellentesque at nulla. Suspendisse potenti. Cras in purus eu magna vulputate luctus.

Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

Etiam vel augue. Vestibulum rutrum rutrum neque. Aenean auctor gravida sem.', '2017-05-17 12:18:36', 77946, 13, 10);
insert into answer (content, "date", views, question_id, author_id) values ('Duis aliquam convallis nunc. Proin at turpis a pede posuere nonummy. Integer non velit.

Donec diam neque, vestibulum eget, vulputate ut, ultrices vel, augue. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Donec pharetra, magna vestibulum aliquet ultrices, erat tortor sollicitudin mi, sit amet lobortis sapien sapien non mi. Integer ac neque.', '2017-05-04 18:34:22', 64024, 15, 7);
insert into answer (content, "date", views, question_id, author_id) values ('Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.', '2017-05-28 04:59:06', 32490, 19, 16);
insert into answer (content, "date", views, question_id, author_id) values ('Praesent id massa id nisl venenatis lacinia. Aenean sit amet justo. Morbi ut odio.

Cras mi pede, malesuada in, imperdiet et, commodo vulputate, justo. In blandit ultrices enim. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Proin interdum mauris non ligula pellentesque ultrices. Phasellus id sapien in sapien iaculis congue. Vivamus metus arcu, adipiscing molestie, hendrerit at, vulputate vitae, nisl.

Aenean lectus. Pellentesque eget nunc. Donec quis orci eget orci vehicula condimentum.', '2017-05-17 22:23:40', 23714, 19, 19);

insert into answer (content, "date", views, question_id, author_id) values ('In congue. Etiam justo. Etiam pretium iaculis justo.

In hac habitasse platea dictumst. Etiam faucibus cursus urna. Ut tellus.

Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi.', '2017-05-29 20:40:58', 19366, 8, 13);

insert into answer (content, "date", views, question_id, author_id) values ('Curabitur in libero ut massa volutpat convallis. Morbi odio odio, elementum eu, interdum eu, tincidunt in, leo. Maecenas pulvinar lobortis est.

Phasellus sit amet erat. Nulla tempus. Vivamus in felis eu sapien cursus vestibulum.

Proin eu mi. Nulla ac enim. In tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem, vitae mattis nibh ligula nec sem.

Duis aliquam convallis nunc. Proin at turpis a pede posuere nonummy. Integer non velit.', '2017-05-16 18:05:54', 64332, 23, 2);

insert into answer (content, "date", views, question_id, author_id) values ('Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus id, turpis. Integer aliquet, massa id lobortis convallis, tortor risus dapibus augue, vel accumsan tellus nisi eu orci. Mauris lacinia sapien quis libero.

Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh.', '2017-05-17 14:34:13', 57638, 27, 19);

insert into answer (content, "date", views, question_id, author_id) values ('Morbi porttitor lorem id ligula. Suspendisse ornare consequat lectus. In est risus, auctor sed, tristique in, tempus sit amet, sem.

Fusce consequat. Nulla nisl. Nunc nisl.

Duis bibendum, felis sed interdum venenatis, turpis enim blandit mi, in porttitor pede justo eu massa. Donec dapibus. Duis at velit eu est congue elementum.', '2017-05-20 00:32:47', 31779, 25, 20);

insert into answer (content, "date", views, question_id, author_id) values ('Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus.

In sagittis dui vel nisl. Duis ac nibh. Fusce lacus purus, aliquet at, feugiat non, pretium quis, lectus.

Suspendisse potenti. In eleifend quam a odio. In hac habitasse platea dictumst.

Maecenas ut massa quis augue luctus tincidunt. Nulla mollis molestie lorem. Quisque ut erat.', '2017-05-19 22:22:44', 58016, 29, 8);

insert into answer (content, "date", views, question_id, author_id) values ('In congue. Etiam justo. Etiam pretium iaculis justo.

In hac habitasse platea dictumst. Etiam faucibus cursus urna. Ut tellus.', '2017-05-18 22:30:11', 86130, 7, 24);

insert into answer (content, "date", views, question_id, author_id) values ('Duis aliquam convallis nunc. Proin at turpis a pede posuere nonummy. Integer non velit.

Donec diam neque, vestibulum eget, vulputate ut, ultrices vel, augue. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Donec pharetra, magna

vestibulum aliquet ultrices, erat tortor sollicitudin mi, sit amet lobortis sapien sapien non mi. Integer ac neque.', '2017-05-07 06:43:47', 68075, 34, 3);
insert into answer (content, "date", views, question_id, author_id) values ('Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin risus. Praesent lectus.

Vestibulum quam sapien, varius ut, blandit non, interdum in, ante. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Duis faucibus accumsan odio. Curabitur convallis.', '2017-05-24 09:51:06', 55480, 6, 5);
insert into answer (content, "date", views, question_id, author_id) values ('Duis consequat dui nec nisi volutpat eleifend. Donec ut dolor. Morbi vel lectus in quam fringilla rhoncus.

Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus id, turpis. Integer aliquet, massa id lobortis convallis, tortor risus dapibus augue, vel accumsan tellus nisi eu orci. Mauris lacinia sapien quis libero.', '2017-05-29 10:38:38', 50188, 18, 7);
insert into answer (content, "date", views, question_id, author_id) values ('Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

Etiam vel augue. Vestibulum rutrum rutrum neque. Aenean auctor gravida sem.

Praesent id massa id nisl venenatis lacinia. Aenean sit amet justo. Morbi ut odio.

Cras mi pede, malesuada in, imperdiet et, commodo vulputate, justo. In blandit ultrices enim. Lorem ipsum dolor sit amet, consectetur adipiscing elit.', '2017-05-07 09:12:24', 64149, 10, 8);
insert into answer (content, "date", views, question_id, author_id) values ('Pellentesque at nulla. Suspendisse potenti. Cras in purus eu magna vulputate luctus.

Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

Etiam vel augue. Vestibulum rutrum rutrum neque. Aenean auctor gravida sem.', '2017-05-23 07:22:51', 55400, 29, 6);
insert into answer (content, "date", views, question_id, author_id) values ('Curabitur in libero ut massa volutpat convallis. Morbi odio odio, elementum eu, interdum eu, tincidunt in, leo. Maecenas pulvinar lobortis est.

Phasellus sit amet erat. Nulla tempus. Vivamus in felis eu sapien cursus vestibulum.

Proin eu mi. Nulla ac enim. In tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem, vitae mattis nibh ligula nec sem.', '2017-05-01 10:38:44', 72249, 16, 14);
insert into answer (content, "date", views, question_id, author_id) values ('Integer ac leo. Pellentesque ultrices mattis odio. Donec vitae nisi.', '2017-05-30 12:26:28', 6043, 31, 10);
insert into answer (content, "date", views, question_id, author_id) values ('Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin risus. Praesent lectus.', '2017-05-18 08:42:29', 93503, 33, 17);
insert into answer (content, "date", views, question_id, author_id) values ('Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi.

Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque.

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Quisque porta volutpat erat. Quisque erat eros, viverra eget, congue eget, semper rutrum,
nulla. Nunc purus.', '2017-05-23 19:05:07', 83420, 28, 12);
insert into answer (content, "date", views, question_id, author_id) values ('Lorem ipsum
dolor sit amet, consectetur adipiscing elit. Proin risus. Praesent lectus.
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Vestibulum quam sapien, varius ut, blandit non, interdum in, ante. Vestibulum ante ipsum
primis in faucibus orci luctus et ultrices posuere cubilia Curae; Duis faucibus accumsan
odio. Curabitur convallis.', '2017-05-28 08:47:04', 11373, 11, 4);
insert into answer (content, "date", views, question_id, author_id) values ('Duis consequat
dui nec nisi volutpat eleifend. Donec ut dolor. Morbi vel lectus in quam fringilla rhoncus.
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Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus id, turpis. Integer aliquet,
massa id lobortis convallis, tortor risus dapibus augue, vel accumsan tellus nisi eu orci.
Mauris lacinia sapien quis libero.', '2017-05-20 00:12:26', 84053, 23, 4);
insert into answer (content, "date", views, question_id, author_id) values ('In sagittis
dui vel nisl. Duis ac nibh. Fusce lacus purus, aliquet at, feugiat non, pretium quis,
lectus.', '2017-05-26 14:08:37', 6651, 39, 10);
insert into answer (content, "date", views, question_id, author_id) values ('Sed sagittis.
Nam congue, risus semper porta volutpat, quam pede lobortis ligula, sit amet eleifend pede
libero quis orci. Nullam molestie nibh in lectus.
```

Pellentesque at nulla. Suspendisse potenti. Cras in purus eu magna vulputate luctus.

Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.
Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

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Etiam vel augue. Vestibulum rutrum rutrum neque. Aenean auctor gravida sem.', '2017-05-01
18:42:16', 92550, 16, 12);
insert into answer (content, "date", views, question_id, author_id) values ('Cras non velit
nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros
elementum pellentesque.
```

Quisque porta volutpat erat. Quisque erat eros, viverra eget, congue eget, semper rutrum, nulla. Nunc purus.

Phasellus in felis. Donec semper sapien a libero. Nam dui.

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Proin leo odio, porttitor id, consequat in, consequat ut, nulla. Sed accumsan felis. Ut at
dolor quis odio consequat varius.', '2017-05-16 03:58:14', 15750, 28, 10);
insert into answer (content, "date", views, question_id, author_id) values ('Proin interdum
mauris non ligula pellentesque ultrices. Phasellus id sapien in sapien iaculis congue.
Vivamus metus arcu, adipiscing molestie, hendrerit at, vulputate vitae, nisl.
```

Aenean lectus. Pellentesque eget nunc. Donec quis orci eget orci vehicula condimentum.

Curabitur in libero ut massa volutpat convallis. Morbi odio odio, elementum eu, interdum eu, tincidunt in, leo. Maecenas pulvinar lobortis est.

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Phasellus sit amet erat. Nulla tempus. Vivamus in felis eu sapien cursus vestibulum.',
'2017-05-12 13:08:35', 91397, 31, 11);
```

insert into answer (content, "date", views, question_id, author_id) values ('Etiam vel augue. Vestibulum rutrum rutrum neque. Aenean auctor gravida sem.

Praesent id massa id nisl venenatis lacinia. Aenean sit amet justo. Morbi ut odio.

Cras mi pede, malesuada in, imperdiet et, commodo vulputate, justo. In blandit ultrices enim. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Proin interdum mauris non ligula pellentesque ultrices. Phasellus id sapien in sapien iaculis congue. Vivamus metus arcu, adipiscing molestie, hendrerit at, vulputate vitae, nisl.', '2017-05-28 07:38:53', 29462, 27, 9);

insert into answer (content, "date", views, question_id, author_id) values ('Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh.

Quisque id justo sit amet sapien dignissim vestibulum. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Nulla dapibus dolor vel est. Donec odio justo, sollicitudin ut, suscipit a, feugiat et, eros.', '2017-05-09 02:14:37', 19554, 14, 19);

insert into answer (content, "date", views, question_id, author_id) values ('Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

Etiam vel augue. Vestibulum rutrum rutrum neque. Aenean auctor gravida sem.

Praesent id massa id nisl venenatis lacinia. Aenean sit amet justo. Morbi ut odio.', '2017-05-24 23:43:37', 52118, 31, 18);

insert into answer (content, "date", views, question_id, author_id) values ('Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus.', '2017-05-18 12:32:32', 58791, 7, 20);

insert into answer (content, "date", views, question_id, author_id) values ('In quis justo. Maecenas rhoncus aliquam lacus. Morbi quis tortor id nulla ultrices aliquet.

Maecenas leo odio, condimentum id, luctus nec, molestie sed, justo. Pellentesque viverra pede ac diam. Cras pellentesque volutpat dui.

Maecenas tristique, est et tempus semper, est quam pharetra magna, ac consequat metus sapien ut nunc. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Mauris viverra diam vitae quam. Suspendisse potenti.

Nullam porttitor lacus at turpis. Donec posuere metus vitae ipsum. Aliquam non mauris.', '2017-05-18 14:18:59', 54830, 31, 11);

insert into answer (content, "date", views, question_id, author_id) values ('Aenean fermentum. Donec ut mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus, ultricies eu, nibh.

Quisque id justo sit amet sapien dignissim vestibulum. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Nulla dapibus dolor vel est. Donec odio justo, sollicitudin ut, suscipit a, feugiat et, eros.', '2017-05-07 04:13:53', 36780, 18, 25);

insert into answer (content, "date", views, question_id, author_id) values ('Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh.

In quis justo. Maecenas rhoncus aliquam lacus. Morbi quis tortor id nulla ultrices aliquet.', '2017-05-16 22:26:03', 6774, 30, 11);
insert into answer (content, "date", views, question_id, author_id) values ('Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus id, turpis. Integer aliquet, massa id lobortis convallis, tortor risus dapibus augue, vel accumsan tellus nisi eu orci. Mauris lacinia sapien quis libero.', '2017-05-25 07:42:03', 68795, 40, 10);
insert into answer (content, "date", views, question_id, author_id) values ('Duis bibendum, felis sed interdum venenatis, turpis enim blandit mi, in porttitor pede justo eu massa. Donec dapibus. Duis at velit eu est congue elementum.

In hac habitasse platea dictumst. Morbi vestibulum, velit id pretium iaculis, diam erat fermentum justo, nec condimentum neque sapien placerat ante. Nulla justo.

Aliquam quis turpis eget elit sodales scelerisque. Mauris sit amet eros. Suspendisse accumsan tortor quis turpis.', '2017-05-11 20:02:00', 76012, 26, 6);
insert into answer (content, "date", views, question_id, author_id) values ('Curabitur in libero ut massa volutpat convallis. Morbi odio odio, elementum eu, interdum eu, tincidunt in, leo. Maecenas pulvinar lobortis est.

Phasellus sit amet erat. Nulla tempus. Vivamus in felis eu sapien cursus vestibulum.

Proin eu mi. Nulla ac enim. In tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem, vitae mattis nibh ligula nec sem.

Duis aliquam convallis nunc. Proin at turpis a pede posuere nonummy. Integer non velit.', '2017-05-13 07:29:24', 24460, 33, 6);
insert into answer (content, "date", views, question_id, author_id) values ('Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh.

In quis justo. Maecenas rhoncus aliquam lacus. Morbi quis tortor id nulla ultrices aliquet.

Maecenas leo odio, condimentum id, luctus nec, molestie sed, justo. Pellentesque viverra pede ac diam. Cras pellentesque volutpat dui.

Maecenas tristique, est et tempus semper, est quam pharetra magna, ac consequat metus sapien ut nunc. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Mauris viverra diam vitae quam. Suspendisse potenti.', '2017-05-04 09:46:37', 96600, 11, 21);
insert into answer (content, "date", views, question_id, author_id) values ('Fusce consequat. Nulla nisl. Nunc nisl.', '2017-05-30 08:21:52', 3227, 21, 5);
insert into answer (content, "date", views, question_id, author_id) values ('Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed magna at nunc commodo placerat.

Praesent blandit. Nam nulla. Integer pede justo, lacinia eget, tincidunt eget, tempus vel, pede.

Morbi porttitor lorem id ligula. Suspendisse ornare consequat lectus. In est risus, auctor sed, tristique in, tempus sit amet, sem.', '2017-05-07 12:16:03', 74851, 21, 3);
insert into answer (content, "date", views, question_id, author_id) values ('Etiam vel augue. Vestibulum rutrum rutrum neque. Aenean auctor gravida sem.', '2017-05-10 13:29:46', 40126, 33, 15);
insert into answer (content, "date", views, question_id, author_id) values ('In congue. Etiam justo. Etiam pretium iaculis justo.

In hac habitasse platea dictumst. Etiam faucibus cursus urna. Ut tellus.', '2017-05-14 05:43:54', 84222, 38, 15);
insert into answer (content, "date", views, question_id, author_id) values ('Phasellus in felis. Donec semper sapien a libero. Nam dui.', '2017-05-30 10:53:25', 4837, 6, 9);
insert into answer (content, "date", views, question_id, author_id) values ('Fusce posuere felis sed lacus. Morbi sem mauris, laoreet ut, rhoncus aliquet, pulvinar sed, nisl. Nunc rhoncus dui vel sem.

Sed sagittis. Nam congue, risus semper porta volutpat, quam pede lobortis ligula, sit amet eleifend pede libero quis orci. Nullam molestie nibh in lectus.

Pellentesque at nulla. Suspendisse potenti. Cras in purus eu magna vulputate luctus.

Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.', '2017-05-25 08:17:44', 40054, 12, 6);
insert into answer (content, "date", views, question_id, author_id) values ('Maecenas leo odio, condimentum id, luctus nec, molestie sed, justo. Pellentesque viverra pede ac diam. Cras pellentesque volutpat dui.

Maecenas tristique, est et tempus semper, est quam pharetra magna, ac consequat metus sapien ut nunc. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Mauris viverra diam vitae quam. Suspendisse potenti.

Nullam porttitor lacus at turpis. Donec posuere metus vitae ipsum. Aliquam non mauris.

Morbi non lectus. Aliquam sit amet diam in magna bibendum imperdiet. Nullam orci pede, venenatis non, sodales sed, tincidunt eu, felis.', '2017-05-14 21:40:26', 22715, 40, 22);
insert into answer (content, "date", views, question_id, author_id) values ('Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi.', '2017-05-24 23:09:13', 94077, 26, 20);
insert into answer (content, "date", views, question_id, author_id) values ('Phasellus in felis. Donec semper sapien a libero. Nam dui.

Proin leo odio, porttitor id, consequat in, consequat ut, nulla. Sed accumsan felis. Ut at dolor quis odio consequat varius.', '2017-05-30 21:06:54', 96956, 8, 24);
insert into answer (content, "date", views, question_id, author_id) values ('Phasellus in felis. Donec semper sapien a libero. Nam dui.

Proin leo odio, porttitor id, consequat in, consequat ut, nulla. Sed accumsan felis. Ut at dolor quis odio consequat varius.

Integer ac leo. Pellentesque ultrices mattis odio. Donec vitae nisi.', '2017-05-24 07:28:43', 83735, 28, 15);
insert into answer (content, "date", views, question_id, author_id) values ('In hac habitasse platea dictumst. Morbi vestibulum, velit id pretium iaculis, diam erat fermentum justo, nec condimentum neque sapien placerat ante. Nulla justo.

Aliquam quis turpis eget elit sodales scelerisque. Mauris sit amet eros. Suspendisse accumsan tortor quis turpis.', '2017-05-04 07:44:01', 57164, 35, 1);
insert into answer (content, "date", views, question_id, author_id) values ('Quisque porta volutpat erat. Quisque erat eros, viverra eget, congue eget, semper rutrum, nulla. Nunc purus.', '2017-05-14 10:50:20', 36337, 4, 23);


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insert into answer (content, "date", views, question_id, author_id) values ('Vestibulum ac est lacinia nisi venenatis tristique. Fusce congue, diam id ornare imperdiet, sapien urna pretium nisl, ut volutpat sapien arcu sed augue. Aliquam erat volutpat.
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In congue. Etiam justo. Etiam pretium iaculis justo.', '2017-05-29 11:14:40', 51025, 39, 3);
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insert into answer (content, "date", views, question_id, author_id) values ('Proin leo odio, porttitor id, consequat in, consequat ut, nulla. Sed accumsan felis. Ut at dolor quis odio consequat varius.
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Integer ac leo. Pellentesque ultrices mattis odio. Donec vitae nisi.
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Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacus.
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Curabitur at ipsum ac tellus semper interdum. Mauris ullamcorper purus sit amet nulla.
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Quisque arcu libero, rutrum ac, lobortis vel, dapibus at, diam.', '2017-05-01 09:00:27', 72337, 15, 12);
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insert into answer (content, "date", views, question_id, author_id) values ('In congue. Etiam justo. Etiam pretium iaculis justo.', '2017-05-22 06:26:38', 1531, 15, 5);
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insert into answer (content, "date", views, question_id, author_id) values ('Phasellus sit amet erat. Nulla tempus. Vivamus in felis eu sapien cursus vestibulum.
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Proin eu mi. Nulla ac enim. In tempor, turpis nec euismod scelerisque, quam turpis
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adipiscing lorem, vitae mattis nibh ligula nec sem.', '2017-05-15 01:31:41', 11627, 33, 8);
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insert into answer (content, "date", views, question_id, author_id) values ('Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi.
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Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque.', '2017-05-20 02:14:14', 79174, 35, 20);
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insert into answer (content, "date", views, question_id, author_id) values ('Maecenas ut massa quis augue luctus tincidunt. Nulla mollis molestie lorem. Quisque ut erat.
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Curabitur gravida nisi at nibh. In hac habitasse platea dictumst. Aliquam augue quam, sollicitudin vitae, consectetuer eget, rutrum at, lorem.', '2017-05-03 06:18:01', 36931, 2, 20);
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insert into answer (content, "date", views, question_id, author_id) values ('Donec diam neque, vestibulum eget, vulputate ut, ultrices vel, augue. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Donec pharetra, magna vestibulum aliquet ultrices, erat tortor sollicitudin mi, sit amet lobortis sapien sapien non mi. Integer ac neque.', '2017-05-26 10:33:45', 57668, 14, 9);
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insert into answer (content, "date", views, question_id, author_id) values ('Duis consequat dui nec nisi volutpat eleifend. Donec ut dolor. Morbi vel lectus in quam fringilla rhoncus.
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Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus id, turpis. Integer aliquet, massa id lobortis convallis, tortor risus dapibus augue, vel accumsan tellus nisi eu orci. Mauris lacinia sapien quis libero.
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```
Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh.
```

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In quis justo. Maecenas rhoncus aliquam lacus. Morbi quis tortor id nulla ultrices aliquet.', '2017-05-20 02:06:44', 61918, 12, 4);
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insert into answer (content, "date", views, question_id, author_id) values ('Suspendisse potenti. In eleifend quam a odio. In hac habitasse platea dictumst.
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Maecenas ut massa quis augue luctus tincidunt. Nulla mollis molestie lorem. Quisque ut erat.', '2017-05-05 10:57:42', 69857, 39, 18);
insert into answer (content, "date", views, question_id, author_id) values ('Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh.

In quis justo. Maecenas rhoncus aliquam lacus. Morbi quis tortor id nulla ultrices aliquet.', '2017-05-28 12:59:24', 14088, 14, 25);
insert into answer (content, "date", views, question_id, author_id) values ('Duis consequat dui nec nisi volutpat eleifend. Donec ut dolor. Morbi vel lectus in quam fringilla rhoncus.

Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus id, turpis. Integer aliquet, massa id lobortis convallis, tortor risus dapibus augue, vel accumsan tellus nisi eu orci. Mauris lacinia sapien quis libero.', '2017-05-02 07:52:08', 49641, 1, 11);
insert into answer (content, "date", views, question_id, author_id) values ('Integer tincidunt ante vel ipsum. Praesent blandit lacinia erat. Vestibulum sed magna at nunc commodo placerat.

Praesent blandit. Nam nulla. Integer pede justo, lacinia eget, tincidunt eget, tempus vel, pede.

Morbi porttitor lorem id ligula. Suspendisse ornare consequat lectus. In est risus, auctor sed, tristique in, tempus sit amet, sem.

Fusce consequat. Nulla nisl. Nunc nisl.', '2017-05-18 01:04:05', 20364, 24, 13);
insert into answer (content, "date", views, question_id, author_id) values ('Praesent blandit. Nam nulla. Integer pede justo, lacinia eget, tincidunt eget, tempus vel, pede.

Morbi porttitor lorem id ligula. Suspendisse ornare consequat lectus. In est risus, auctor sed, tristique in, tempus sit amet, sem.

Fusce consequat. Nulla nisl. Nunc nisl.

Duis bibendum, felis sed interdum venenatis, turpis enim blandit mi, in porttitor pede justo eu massa. Donec dapibus. Duis at velit eu est congue elementum.', '2017-05-07 22:38:04', 93326, 24, 4);
insert into answer (content, "date", views, question_id, author_id) values ('Proin leo odio, porttitor id, consequat in, consequat ut, nulla. Sed accumsan felis. Ut at dolor quis odio consequat varius.

Integer ac leo. Pellentesque ultrices mattis odio. Donec vitae nisi.

Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacus.

Curabitur at ipsum ac tellus semper interdum. Mauris ullamcorper purus sit amet nulla. Quisque arcu libero, rutrum ac, lobortis vel, dapibus at, diam.', '2017-05-23 19:23:06', 12741, 6, 23);
insert into answer (content, "date", views, question_id, author_id) values ('Pellentesque at nulla. Suspendisse potenti. Cras in purus eu magna vulputate luctus.', '2017-05-27 10:02:49', 97570, 40, 20);
insert into answer (content, "date", views, question_id, author_id) values ('Duis consequat dui nec nisi volutpat eleifend. Donec ut dolor. Morbi vel lectus in quam fringilla rhoncus.

Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus id, turpis. Integer aliquet, massa id lobortis convallis, tortor risus dapibus augue, vel accumsan tellus nisi eu orci. Mauris lacinia sapien quis libero.

Nullam sit amet turpis elementum ligula vehicula consequat. Morbi a ipsum. Integer a nibh.

In quis justo. Maecenas rhoncus aliquam lacus. Morbi quis tortor id nulla ultrices aliquet.', '2017-05-28 04:43:09', 92454, 9, 11);
insert into answer (content, "date", views, question_id, author_id) values ('Aliquam quis turpis eget elit sodales scelerisque. Mauris sit amet eros. Suspendisse accumsan tortor quis turpis.

Sed ante. Vivamus tortor. Duis mattis egestas metus.', '2017-05-24 03:44:20', 83402, 16, 16);
insert into answer (content, "date", views, question_id, author_id) values ('Vestibulum ac est lacinia nisi venenatis tristique. Fusce congue, diam id ornare imperdiet, sapien urna pretium nisl, ut volutpat sapien arcu sed augue. Aliquam erat volutpat.

In congue. Etiam justo. Etiam pretium iaculis justo.

In hac habitasse platea dictumst. Etiam faucibus cursus urna. Ut tellus.

Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi.', '2017-05-08 12:29:24', 67016, 8, 9);
insert into answer (content, "date", views, question_id, author_id) values ('Quisque porta volutpat erat. Quisque erat eros, viverra eget, congue eget, semper rutrum, nulla. Nunc purus.

Phasellus in felis. Donec semper sapien a libero. Nam dui.

Proin leo odio, porttitor id, consequat in, consequat ut, nulla. Sed accumsan felis. Ut at dolor quis odio consequat varius.', '2017-05-16 17:27:42', 45665, 19, 17);
insert into answer (content, "date", views, question_id, author_id) values ('Quisque porta volutpat erat. Quisque erat eros, viverra eget, congue eget, semper rutrum, nulla. Nunc purus.

Phasellus in felis. Donec semper sapien a libero. Nam dui.', '2017-05-08 22:09:58', 90905, 40, 22);
insert into answer (content, "date", views, question_id, author_id) values ('Proin leo odio, porttitor id, consequat in, consequat ut, nulla. Sed accumsan felis. Ut at dolor quis odio consequat varius.', '2017-05-13 17:31:25', 25754, 21, 25);
insert into answer (content, "date", views, question_id, author_id) values ('Curabitur in libero ut massa volutpat convallis. Morbi odio odio, elementum eu, interdum eu, tincidunt in, leo. Maecenas pulvinar lobortis est.', '2017-05-19 08:36:06', 33766, 27, 7);
insert into answer (content, "date", views, question_id, author_id) values ('Fusce posuere felis sed lacus. Morbi sem mauris, laoreet ut, rhoncus aliquet, pulvinar sed, nisl. Nunc rhoncus dui vel sem.

Sed sagittis. Nam congue, risus semper porta volutpat, quam pede lobortis ligula, sit amet eleifend pede libero quis orci. Nullam molestie nibh in lectus.

Pellentesque at nulla. Suspendisse potenti. Cras in purus eu magna vulputate luctus.

Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.', '2017-05-30 22:53:30', 32017, 38, 25); insert into answer (content, "date", views, question_id, author_id) values ('Phasellus sit amet erat. Nulla tempus. Vivamus in felis eu sapien cursus vestibulum.

Proin eu mi. Nulla ac enim. In tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem, vitae mattis nibh ligula nec sem.', '2017-05-28 03:17:56', 48021, 1, 21); insert into answer (content, "date", views, question_id, author_id) values ('In hac habitasse platea dictumst. Morbi vestibulum, velit id pretium iaculis, diam erat fermentum justo, nec condimentum neque sapien placerat ante. Nulla justo.

Aliquam quis turpis eget elit sodales scelerisque. Mauris sit amet eros. Suspendisse accumsan tortor quis turpis.

Sed ante. Vivamus tortor. Duis mattis egestas metus.', '2017-05-18 05:58:21', 66441, 15, 2); insert into answer (content, "date", views, question_id, author_id) values ('Phasellus sit amet erat. Nulla tempus. Vivamus in felis eu sapien cursus vestibulum.

Proin eu mi. Nulla ac enim. In tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem, vitae mattis nibh ligula nec sem.

Duis aliquam convallis nunc. Proin at turpis a pede posuere nonummy. Integer non velit.', '2017-05-12 13:23:55', 10241, 22, 9); insert into answer (content, "date", views, question_id, author_id) values ('Pellentesque at nulla. Suspendisse potenti. Cras in purus eu magna vulputate luctus.

Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.', '2017-05-05 12:16:11', 39547, 39, 17); insert into answer (content, "date", views, question_id, author_id) values ('Duis aliquam convallis nunc. Proin at turpis a pede posuere nonummy. Integer non velit.

Donec diam neque, vestibulum eget, vulputate ut, ultrices vel, augue. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Donec pharetra, magna vestibulum aliquet ultrices, erat tortor sollicitudin mi, sit amet lobortis sapien sapien non mi. Integer ac neque.', '2017-05-06 20:19:38', 84415, 32, 23); insert into answer (content, "date", views, question_id, author_id) values ('Praesent blandit. Nam nulla. Integer pede justo, lacinia eget, tincidunt eget, tempus vel, pede.

Morbi porttitor lorem id ligula. Suspendisse ornare consequat lectus. In est risus, auctor sed, tristique in, tempus sit amet, sem.', '2017-05-25 03:26:07', 92974, 19, 23); insert into answer (content, "date", views, question_id, author_id) values ('Maecenas leo odio, condimentum id, luctus nec, molestie sed, justo. Pellentesque viverra pede ac diam. Cras pellentesque volutpat dui.

Maecenas tristique, est et tempus semper, est quam pharetra magna, ac consequat metus sapien ut nunc. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Mauris viverra diam vitae quam. Suspendisse potenti.

Nullam porttitor lacus at turpis. Donec posuere metus vitae ipsum. Aliquam non mauris.

Morbi non lectus. Aliquam sit amet diam in magna bibendum imperdiet. Nullam orci pede, venenatis non, sodales sed, tincidunt eu, felis.', '2017-05-17 19:55:35', 38126, 40, 7); insert into answer (content, "date", views, question_id, author_id) values ('Praesent blandit. Nam nulla. Integer pede justo, lacinia eget, tincidunt eget, tempus vel, pede.

Morbi porttitor lorem id ligula. Suspendisse ornare consequat lectus. In est risus, auctor sed, tristique in, tempus sit amet, sem.

Fusce consequat. Nulla nisl. Nunc nisl.', '2017-05-20 06:07:28', 50859, 25, 13); insert into answer (content, "date", views, question_id, author_id) values ('In sagittis dui vel nisl. Duis ac nibh. Fusce lacus purus, aliquet at, feugiat non, pretium quis, lectus.

Suspendisse potenti. In eleifend quam a odio. In hac habitasse platea dictumst.

Maecenas ut massa quis augue luctus tincidunt. Nulla mollis molestie lorem. Quisque ut erat.

Curabitur gravida nisi at nibh. In hac habitasse platea dictumst. Aliquam augue quam, sollicitudin vitae, consectetuer eget, rutrum at, lorem.', '2017-05-04 07:45:25', 92034, 8, 7); insert into answer (content, "date", views, question_id, author_id) values ('Quisque id justo sit amet sapien dignissim vestibulum. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Nulla dapibus dolor vel est. Donec odio justo, sollicitudin ut, suscipit a, feugiat et, eros.', '2017-05-04 03:44:43', 98001, 14, 5); insert into answer (content, "date", views, question_id, author_id) values ('Aliquam quis turpis eget elit sodales scelerisque. Mauris sit amet eros. Suspendisse accumsan tortor quis turpis.

Sed ante. Vivamus tortor. Duis mattis egestas metus.', '2017-05-14 18:38:33', 17628, 26, 25); insert into answer (content, "date", views, question_id, author_id) values ('Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus.', '2017-05-28 02:14:10', 30880, 34, 18); insert into answer (content, "date", views, question_id, author_id) values ('Duis bibendum, felis sed interdum venenatis, turpis enim blandit mi, in porttitor pede justo eu massa. Donec dapibus. Duis at velit eu est congue elementum.

In hac habitasse platea dictumst. Morbi vestibulum, velit id pretium iaculis, diam erat fermentum justo, nec condimentum neque sapien placerat ante. Nulla justo.

Aliquam quis turpis eget elit sodales scelerisque. Mauris sit amet eros. Suspendisse accumsan tortor quis turpis.

Sed ante. Vivamus tortor. Duis mattis egestas metus.', '2017-05-11 09:51:17', 6799, 33, 13); insert into answer (content, "date", views, question_id, author_id) values ('Integer ac leo. Pellentesque ultrices mattis odio. Donec vitae nisi.

Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacus.', '2017-05-10 22:59:48', 11481, 29, 12); insert into answer (content, "date", views, question_id, author_id) values ('Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus.

In sagittis dui vel nisl. Duis ac nibh. Fusce lacus purus, aliquet at, feugiat non, pretium quis, lectus.', '2017-05-04 09:26:02', 42027, 9, 11);

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insert into answer (content, "date", views, question_id, author_id) values ('In hac habitasse platea dictumst. Morbi vestibulum, velit id pretium iaculis, diam erat fermentum justo, nec condimentum neque sapien placerat ante. Nulla justo.', '2017-05-20 12:11:43', 7206, 1, 17);
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insert into answer (content, "date", views, question_id, author_id) values ('In congue. Etiam justo. Etiam pretium iaculis justo.', '2017-05-28 22:00:28', 64117, 6, 10);
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insert into answer (content, "date", views, question_id, author_id) values ('Phasellus sit amet erat. Nulla tempus. Vivamus in felis eu sapien cursus vestibulum.
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Proin eu mi. Nulla ac enim. In tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem, vitae mattis nibh ligula nec sem.

Duis aliquam convallis nunc. Proin at turpis a pede posuere nonummy. Integer non velit.

Donec diam neque, vestibulum eget, vulputate ut, ultrices vel, augue. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Donec pharetra, magna vestibulum aliquet ultrices, erat tortor sollicitudin mi, sit amet lobortis sapien sapien non mi. Integer ac neque.', '2017-05-08 16:07:58', 80464, 11, 4);

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insert into answer (content, "date", views, question_id, author_id) values ('Phasellus in felis. Donec semper sapien a libero. Nam dui.
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Proin leo odio, porttitor id, consequat in, consequat ut, nulla. Sed accumsan felis. Ut at dolor quis odio consequat varius.

Integer ac leo. Pellentesque ultrices mattis odio. Donec vitae nisi.', '2017-05-03 05:12:46', 29872, 27, 5);

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insert into answer (content, "date", views, question_id, author_id) values ('In congue. Etiam justo. Etiam pretium iaculis justo.
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In hac habitasse platea dictumst. Etiam faucibus cursus urna. Ut tellus.

Nulla ut erat id mauris vulputate elementum. Nullam varius. Nulla facilisi.', '2017-05-14 01:05:26', 65053, 30, 2);

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insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi vel lectus in quam fringilla rhoncus. Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus id, turpis. Integer aliquet, massa id lobortis convallis, tortor risus dapibus augue, vel accumsan tellus nisi eu orci.', '2017-06-25 20:48:19', 25, null, 11);
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insert into comment (content, "date", question_id, answer_id, author_id) values ('Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.', '2017-06-26 19:05:02', 2, null, 3);
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insert into comment (content, "date", question_id, answer_id, author_id) values ('Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus id, turpis.', '2017-06-18 11:47:58', 26, null, 4);
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insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi non quam nec dui luctus rutrum.', '2017-06-17 01:32:57', 24, null, 14);
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insert into comment (content, "date", question_id, answer_id, author_id) values ('Suspendisse potenti. Cras in purus eu magna vulputate luctus.', '2017-06-29 17:50:57', 29, null, 14);
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insert into comment (content, "date", question_id, answer_id, author_id) values ('Integer ac leo. Pellentesque ultrices mattis odio.', '2017-06-23 07:57:49', 12, null, 3);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Duis faucibus accumsan odio. Curabitur convallis. Duis consequat dui nec nisi volutpat eleifend.', '2017-06-19 18:11:42', 17, null, 21);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Maecenas leo odio, condimentum id, luctus nec, molestie sed, justo.', '2017-06-01 05:45:38', 1, null, 1);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Aliquam sit amet diam in magna bibendum imperdiet.', '2017-06-22 09:52:54', 24, null, 12);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Pellentesque ultrices mattis odio.', '2017-06-08 05:54:13', 20, null, 24);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Aliquam non mauris. Morbi non lectus. Aliquam sit amet diam in magna bibendum imperdiet.', '2017-06-06 00:55:43', 25, null, 9);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Praesent blandit lacinia erat.', '2017-06-17 21:14:51', 1, null, 11);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nulla tellus. In sagittis dui vel nisl. Duis ac nibh.', '2017-06-29 00:11:48', 1, null, 7);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Aenean lectus. Pellentesque eget nunc. Donec quis orci eget orci vehicula condimentum.', '2017-06-21 17:21:52', 8, null, 18);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Aliquam augue quam, sollicitudin vitae, consectetuer eget, rutrum at, lorem. Integer tincidunt ante vel ipsum.', '2017-06-20 20:00:12', 18, null, 5);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Etiam vel augue. Vestibulum rutrum rutrum neque. Aenean auctor gravida sem.', '2017-06-18 09:37:14', 3, null, 10);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.', '2017-06-01 01:22:43', 33, null, 6);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi non lectus. Aliquam sit amet diam in magna bibendum imperdiet.', '2017-06-26 11:12:28', 2, null, 15);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nullam varius. Nulla facilisi.', '2017-06-29 01:57:33', 9, null, 14);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi quis tortor id nulla ultrices aliquet.', '2017-06-25 13:34:55', 14, null, 2);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Praesent blandit.', '2017-06-21 00:36:08', 33, null, 18);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi porttitor lorem id ligula. Suspendisse ornare consequat lectus. In est risus, auctor sed, tristique in, tempus sit amet, sem.', '2017-06-10 14:48:42', 39, null, 18);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Suspendisse ornare consequat lectus.', '2017-06-22 12:16:34', 34, null, 25);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Etiam faucibus cursus urna.', '2017-06-11 21:22:38', 21, null, 5);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Fusce congue, diam id ornare imperdiet, sapien urna pretium nisl, ut volutpat sapien arcu sed augue. Aliquam erat volutpat. In congue.', '2017-06-18 01:51:19', 14, null, 23);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Curabitur in libero ut massa volutpat convallis.', '2017-06-17 18:25:18', 31, null, 8);
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insert into comment (content, "date", question_id, answer_id, author_id) values ('Curabitur in libero ut massa volutpat convallis. Morbi odio odio, elementum eu, interdum eu, tincidunt in, leo. Maecenas pulvinar lobortis est.', '2017-06-07 08:49:41', 23, null, 13);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Donec ut dolor. Morbi vel lectus in quam fringilla rhoncus.', '2017-06-03 04:03:54', 40, null, 24);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Curabitur at ipsum ac tellus semper interdum.', '2017-06-15 16:30:12', 37, null, 24);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nunc rhoncus dui vel sem. Sed sagittis.', '2017-06-18 13:55:42', 33, null, 24);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Suspendisse ornare consequat lectus. In est risus, auctor sed, tristique in, tempus sit amet, sem. Fusce consequat.', '2017-06-25 01:33:20', 4, null, 7);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Duis bibendum. Morbi non quam nec dui luctus rutrum. Nulla tellus.', '2017-06-20 23:27:02', 36, null, 9);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Integer pede justo, lacinia eget, tincidunt eget, tempus vel, pede. Morbi porttitor lorem id ligula. Suspendisse ornare consequat lectus.', '2017-06-01 07:29:20', 10, null, 17);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Vivamus vestibulum sagittis sapien.', '2017-06-01 20:28:38', 40, null, 5);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nam congue, risus semper porta volutpat, quam pede lobortis ligula, sit amet eleifend pede libero quis orci. Nullam molestie nibh in lectus.', '2017-06-12 11:52:59', 40, null, 5);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nulla nisl. Nunc nisl.', '2017-06-03 13:35:10', 33, null, 13);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Cras in purus eu magna vulputate luctus. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien.', '2017-06-25 15:00:17', 33, null, 1);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nullam porttitor lacus at turpis.', '2017-06-01 03:18:31', 39, null, 3);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Proin interdum mauris non ligula pellentesque ultrices.', '2017-06-24 15:26:17', 25, null, 2);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Aliquam erat volutpat. In congue.', '2017-06-12 09:47:51', 12, null, 23);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Etiam faucibus cursus urna. Ut tellus.', '2017-06-27 11:12:40', 24, null, 3);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Vestibulum ac est lacinia nisi venenatis tristique.', '2017-06-15 08:02:52', 35, null, 15);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Fusce congue, diam id ornare imperdiet, sapien urna pretium nisl, ut volutpat sapien arcu sed augue. Aliquam erat volutpat.', '2017-06-10 04:01:08', 35, null, 17);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Maecenas tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque. Quisque porta volutpat erat.', '2017-06-22 13:33:13', 1, null, 24);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Maecenas pulvinar lobortis est.', '2017-06-05 19:50:35', 24, null, 11);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Vivamus tortor.', '2017-06-23 13:31:47', 19, null, 1);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Duis faucibus accumsan odio. Curabitur convallis. Duis consequat dui nec nisi volutpat eleifend.', '2017-06-05 11:09:30', 27, null, 2);
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insert into comment (content, "date", question_id, answer_id, author_id) values ('In
tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem, vitae mattis nibh
ligula nec sem.', '2017-06-22 13:15:11', 28, null, 8);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nulla
tempus.', '2017-06-01 12:24:49', 38, null, 8);
insert into comment (content, "date", question_id, answer_id, author_id) values
('Pellentesque ultrices mattis odio. Donec vitae nisi. Nam ultrices, libero non mattis
pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit ac nulla.', '2017-06-27
00:34:29', 31, null, 21);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi non
lectus.', '2017-06-28 04:54:03', 5, null, 21);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Maecenas
tristique, est et tempus semper, est quam pharetra magna, ac consequat metus sapien ut
nunc. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia
Curae; Mauris viverra diam vitae quam.', '2017-06-14 16:53:29', 26, null, 24);
insert into comment (content, "date", question_id, answer_id, author_id) values
('Suspendisse potenti. In eleifend quam a odio. In hac habitasse platea dictumst.',
'2017-06-29 17:32:22', 8, null, 3);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi non
lectus. Aliquam sit amet diam in magna bibendum imperdiet.', '2017-06-11 01:43:12', 16,
null, 24);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Fusce
lacus purus, aliquet at, feugiat non, pretium quis, lectus. Suspendisse potenti. In
eleifend quam a odio.', '2017-06-12 12:56:55', 38, null, 23);
insert into comment (content, "date", question_id, answer_id, author_id) values
('Vestibulum rutrum rutrum neque.', '2017-06-19 22:06:11', null, 19, 9);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi vel
lectus in quam fringilla rhoncus. Mauris enim leo, rhoncus sed, vestibulum sit amet, cursus
id, turpis. Integer aliquet, massa id lobortis convallis, tortor risus dapibus augue, vel
accumsan tellus nisi eu orci.', '2017-06-13 11:56:52', null, 1, 10);
insert into comment (content, "date", question_id, answer_id, author_id) values ('In hac
habitasse platea dictumst. Aliquam augue quam, sollicitudin vitae, consectetuer eget,
rutrum at, lorem. Integer tincidunt ante vel ipsum.', '2017-06-20 03:40:39', null, 24, 20);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Cum
sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Vivamus
vestibulum sagittis sapien.', '2017-06-14 21:07:03', null, 80, 14);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Donec
odio justo, sollicitudin ut, suscipit a, feugiat et, eros. Vestibulum ac est lacinia nisi
venenatis tristique. Fusce congue, diam id ornare imperdiet, sapien urna pretium nisl, ut
volutpat sapien arcu sed augue.', '2017-06-01 00:47:11', null, 14, 22);
insert into comment (content, "date", question_id, answer_id, author_id) values ('In hac
habitasse platea dictumst. Morbi vestibulum, velit id pretium iaculis, diam erat fermentum
justo, nec condimentum neque sapien placerat ante. Nulla justo.', '2017-06-22 09:37:49',
null, 27, 7);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Fusce
lacus purus, aliquet at, feugiat non, pretium quis, lectus. Suspendisse potenti.',
'2017-06-03 09:02:10', null, 17, 3);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Lorem
ipsum dolor sit amet, consectetur adipiscing elit.', '2017-06-20 16:52:23', null, 25, 16);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Vivamus
in felis eu sapien cursus vestibulum. Proin eu mi. Nulla ac enim.', '2017-06-29 10:12:48',
null, 60, 5);

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insert into comment (content, "date", question_id, answer_id, author_id) values ('Nullam
sit amet turpis elementum ligula vehicula consequat.', '2017-06-21 13:13:36', null, 78,
23);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Vivamus
vel nulla eget eros elementum pellentesque. Quisque porta volutpat erat. Quisque erat eros,
viverra eget, congue eget, semper rutrum, nulla.', '2017-06-08 07:36:50', null, 95, 7);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Vivamus
tortor.', '2017-06-09 23:21:23', null, 34, 18);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi non
quam nec dui luctus rutrum. Nulla tellus. In sagittis dui vel nisl.', '2017-06-23
03:04:00', null, 7, 18);
insert into comment (content, "date", question_id, answer_id, author_id) values
('Suspendisse accumsan tortor quis turpis.', '2017-06-29 04:56:18', null, 28, 9);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Cras in
purus eu magna vulputate luctus.', '2017-06-12 09:44:40', null, 94, 4);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nullam
varius. Nulla facilisi.', '2017-06-24 02:04:43', null, 33, 22);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Sed ante.
Vivamus tortor.', '2017-06-20 07:30:09', null, 18, 12);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Fusce
congue, diam id ornare imperdiet, sapien urna pretium nisl, ut volutpat sapien arcu sed
augue.', '2017-06-14 04:41:18', null, 43, 15);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Cras in
purus eu magna vulputate luctus. Cum sociis natoque penatibus et magnis dis parturient
montes, nascetur ridiculus mus. Vivamus vestibulum sagittis sapien.', '2017-06-20
10:41:37', null, 70, 16);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Quisque
erat eros, viverra eget, congue eget, semper rutrum, nulla. Nunc purus. Phasellus in
felis.', '2017-06-29 20:12:42', null, 76, 18);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Phasellus
id sapien in sapien iaculis congue. Vivamus metus arcu, adipiscing molestie, hendrerit at,
vulputate vitae, nisl.', '2017-06-03 02:26:13', null, 27, 3);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi
quis tortor id nulla ultrices aliquet.', '2017-06-12 09:02:35', null, 87, 1);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nulla
nisl.', '2017-06-11 04:34:03', null, 54, 9);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nulla
nisl.', '2017-06-09 06:48:34', null, 42, 20);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Aenean
lectus.', '2017-06-18 05:36:41', null, 84, 5);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Duis ac
nibh.', '2017-06-16 13:53:54', null, 20, 7);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nam
ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit
ac nulla. Sed vel enim sit amet nunc viverra dapibus.', '2017-06-28 16:00:06', null, 54,
24);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Fusce
posuere felis sed lacus.', '2017-06-15 23:22:46', null, 55, 19);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nulla ac
enim. In tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem, vitae mattis
nibh ligula nec sem. Duis aliquam convallis nunc.', '2017-06-21 07:20:11', null, 9, 19);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Donec
vitae nisi. Nam ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a
suscipit nulla elit ac nulla.', '2017-06-19 23:58:45', null, 78, 24);

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insert into comment (content, "date", question_id, answer_id, author_id) values ('Sed
accumsan felis.', '2017-06-05 13:25:08', null, 22, 22);
insert into comment (content, "date", question_id, answer_id, author_id) values
('Pellentesque at nulla. Suspendisse potenti. Cras in purus eu magna vulputate luctus.',
'2017-06-15 22:02:50', null, 34, 21);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Sed
sagittis. Nam congue, risus semper porta volutpat, quam pede lobortis ligula, sit amet
eleifend pede libero quis orci. Nullam molestie nibh in lectus.', '2017-06-13 02:07:05',
null, 11, 7);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Cras in
purus eu magna vulputate luctus. Cum sociis natoque penatibus et magnis dis parturient
montes, nascetur ridiculus mus.', '2017-06-09 06:01:26', null, 49, 21);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Integer
aliquet, massa id lobortis convallis, tortor risus dapibus augue, vel accumsan tellus nisi
eu orci.', '2017-06-07 07:11:20', null, 15, 2);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Donec
posuere metus vitae ipsum. Aliquam non mauris.', '2017-06-26 05:12:21', null, 85, 8);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Sed
sagittis. Nam congue, risus semper porta volutpat, quam pede lobortis ligula, sit amet
eleifend pede libero quis orci.', '2017-06-06 21:46:41', null, 89, 6);
insert into comment (content, "date", question_id, answer_id, author_id) values
('Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae;
Donec pharetra, magna vestibulum aliquet ultrices, erat tortor sollicitudin mi, sit amet
lobortis sapien sapien non mi. Integer ac neque.', '2017-06-10 15:46:13', null, 89, 9);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Duis
consequat dui nec nisi volutpat eleifend.', '2017-06-16 09:19:20', null, 99, 17);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nam
ultrices, libero non mattis pulvinar, nulla pede ullamcorper augue, a suscipit nulla elit
ac nulla. Sed vel enim sit amet nunc viverra dapibus. Nulla suscipit ligula in lacus.',
'2017-06-22 08:17:06', null, 41, 2);
insert into comment (content, "date", question_id, answer_id, author_id) values
('Suspendisse potenti. Nullam porttitor lacus at turpis.', '2017-06-09 20:47:15', null, 25,
24);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Lorem
ipsum dolor sit amet, consectetur adipiscing elit. Proin risus.', '2017-06-12 01:08:30',
null, 86, 4);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Proin eu
mi. Nulla ac enim. In tempor, turpis nec euismod scelerisque, quam turpis adipiscing lorem,
vitae mattis nibh ligula nec sem.', '2017-06-15 01:54:08', null, 40, 20);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Praesent
id massa id nisl venenatis lacinia.', '2017-06-12 02:23:52', null, 87, 23);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nulla
facilisi. Cras non velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit.',
'2017-06-18 23:27:03', null, 80, 9);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Duis
bibendum, felis sed interdum venenatis, turpis enim blandit mi, in porttitor pede justo eu
massa. Donec dapibus.', '2017-06-01 23:46:01', null, 65, 25);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Donec ut
mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus,
ultricies eu, nibh.', '2017-06-01 09:19:41', null, 94, 2);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Aliquam
quis turpis eget elit sodales scelerisque. Mauris sit amet eros. Suspendisse accumsan
tortor quis turpis.', '2017-06-25 11:40:12', null, 79, 25);
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insert into comment (content, "date", question_id, answer_id, author_id) values ('Vivamus
in felis eu sapien cursus vestibulum. Proin eu mi. Nulla ac enim.', '2017-06-19 22:46:35',
null, 40, 11);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Maecenas
tincidunt lacus at velit. Vivamus vel nulla eget eros elementum pellentesque. Quisque porta
volutpat erat.', '2017-06-14 02:19:31', null, 67, 11);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Fusce
lacus purus, aliquet at, feugiat non, pretium quis, lectus. Suspendisse potenti.',
'2017-06-17 15:52:18', null, 72, 2);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Mauris
sit amet eros.', '2017-06-11 05:45:44', null, 83, 16);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nunc
nisl.', '2017-06-11 08:32:49', null, 8, 5);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nulla
neque libero, convallis eget, eleifend luctus, ultricies eu, nibh. Quisque id justo sit
amet sapien dignissim vestibulum. Vestibulum ante ipsum primis in faucibus orci luctus et
ultrices posuere cubilia Curae; Nulla dapibus dolor vel est.', '2017-06-22 15:27:15', null,
49, 1);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Duis
aliquam convallis nunc. Proin at turpis a pede posuere nonummy. Integer non velit.',
'2017-06-21 12:19:58', null, 11, 22);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Maecenas
leo odio, condimentum id, luctus nec, molestie sed, justo.', '2017-06-04 05:00:04', null,
68, 1);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi
quis tortor id nulla ultrices aliquet.', '2017-06-07 10:48:21', null, 68, 10);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Cras non
velit nec nisi vulputate nonummy. Maecenas tincidunt lacus at velit. Vivamus vel nulla eget
eros elementum pellentesque.', '2017-06-06 18:37:30', null, 100, 1);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Nam
dui.', '2017-06-13 01:41:36', null, 58, 25);
insert into comment (content, "date", question_id, answer_id, author_id) values
('Pellentesque ultrices mattis odio. Donec vitae nisi.', '2017-06-08 17:07:34', null, 42,
22);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Donec ut
mauris eget massa tempor convallis. Nulla neque libero, convallis eget, eleifend luctus,
ultricies eu, nibh. Quisque id justo sit amet sapien dignissim vestibulum.', '2017-06-11
04:41:34', null, 13, 24);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Duis ac
nibh. Fusce lacus purus, aliquet at, feugiat non, pretium quis, lectus.', '2017-06-26
03:43:32', null, 62, 9);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Integer
non velit.', '2017-06-08 20:24:44', null, 21, 13);
insert into comment (content, "date", question_id, answer_id, author_id) values ('In
eleifend quam a odio.', '2017-06-08 14:45:26', null, 82, 15);
insert into comment (content, "date", question_id, answer_id, author_id) values
('Suspendisse ornare consequat lectus. In est risus, auctor sed, tristique in, tempus sit
amet, sem. Fusce consequat.', '2017-06-21 09:37:36', null, 2, 9);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Curabitur
at ipsum ac tellus semper interdum. Mauris ullamcorper purus sit amet nulla.', '2017-06-14
07:22:22', null, 78, 23);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Duis
consequat dui nec nisi volutpat eleifend. Donec ut dolor. Morbi vel lectus in quam
fringilla rhoncus.', '2017-06-04 00:03:41', null, 89, 2);
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insert into comment (content, "date", question_id, answer_id, author_id) values
('Suspendisse accumsan tortor quis turpis.', '2017-06-02 15:32:47', null, 30, 1);
insert into comment (content, "date", question_id, answer_id, author_id) values
('Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae;
Donec pharetra, magna vestibulum aliquet ultrices, erat tortor sollicitudin mi, sit amet
lobortis sapien sapien non mi.', '2017-06-24 10:09:00', null, 72, 17);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Vivamus
in felis eu sapien cursus vestibulum. Proin eu mi.', '2017-06-20 17:08:26', null, 11, 19);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Curabitur
in libero ut massa volutpat convallis.', '2017-06-28 05:09:46', null, 70, 25);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Morbi
porttitor lorem id ligula. Suspendisse ornare consequat lectus. In est risus, auctor sed,
tristique in, tempus sit amet, sem.', '2017-06-27 16:12:54', null, 85, 12);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Cras non
velit nec nisi vulputate nonummy.', '2017-06-14 04:13:37', null, 46, 2);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Duis
mattis egestas metus. Aenean fermentum. Donec ut mauris eget massa tempor convallis.',
'2017-06-29 11:27:18', null, 92, 8);
insert into comment (content, "date", question_id, answer_id, author_id) values ('Cras mi
pede, malesuada in, imperdiet et, commodo vulputate, justo. In blandit ultrices enim.',
'2017-06-12 17:47:57', null, 56, 12);

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insert into question_topic (question_id, topic_id) values (11, 29);
insert into question_topic (question_id, topic_id) values (6, 26);
insert into question_topic (question_id, topic_id) values (26, 15);
insert into question_topic (question_id, topic_id) values (13, 18);
insert into question_topic (question_id, topic_id) values (29, 23);
insert into question_topic (question_id, topic_id) values (35, 5);
insert into question_topic (question_id, topic_id) values (30, 26);
insert into question_topic (question_id, topic_id) values (22, 26);
insert into question_topic (question_id, topic_id) values (12, 40);
insert into question_topic (question_id, topic_id) values (36, 22);
insert into question_topic (question_id, topic_id) values (8, 20);
insert into question_topic (question_id, topic_id) values (40, 29);
insert into question_topic (question_id, topic_id) values (38, 20);
insert into question_topic (question_id, topic_id) values (11, 21);
insert into question_topic (question_id, topic_id) values (20, 3);
insert into question_topic (question_id, topic_id) values (3, 2);
insert into question_topic (question_id, topic_id) values (24, 22);
insert into question_topic (question_id, topic_id) values (18, 1);
insert into question_topic (question_id, topic_id) values (7, 14);
insert into question_topic (question_id, topic_id) values (29, 27);
insert into question_topic (question_id, topic_id) values (6, 25);
insert into question_topic (question_id, topic_id) values (30, 28);
insert into question_topic (question_id, topic_id) values (4, 9);
insert into question_topic (question_id, topic_id) values (31, 2);
insert into question_topic (question_id, topic_id) values (19, 15);
insert into question_topic (question_id, topic_id) values (7, 16);
insert into question_topic (question_id, topic_id) values (29, 26);
insert into question_topic (question_id, topic_id) values (36, 24);
insert into question_topic (question_id, topic_id) values (27, 12);
insert into question_topic (question_id, topic_id) values (3, 41);
insert into question_topic (question_id, topic_id) values (2, 6);
insert into question_topic (question_id, topic_id) values (17, 8);

```

[illegible]


```
insert into question_rating (question_id, member_id, rate) values (6, 2, -1);
insert into question_rating (question_id, member_id, rate) values (8, 24, -1);
insert into question_rating (question_id, member_id, rate) values (2, 11, 1);
```

```
insert into answer_rating (answer_id, member_id, rate) values (22, 17, -1);
insert into answer_rating (answer_id, member_id, rate) values (82, 3, 1);
insert into answer_rating (answer_id, member_id, rate) values (72, 12, -1);
insert into answer_rating (answer_id, member_id, rate) values (53, 9, 1);
insert into answer_rating (answer_id, member_id, rate) values (7, 9, 1);
insert into answer_rating (answer_id, member_id, rate) values (25, 1, 1);
insert into answer_rating (answer_id, member_id, rate) values (45, 15, 1);
insert into answer_rating (answer_id, member_id, rate) values (68, 23, -1);
insert into answer_rating (answer_id, member_id, rate) values (53, 6, 1);
insert into answer_rating (answer_id, member_id, rate) values (10, 21, -1);
insert into answer_rating (answer_id, member_id, rate) values (96, 8, 1);
insert into answer_rating (answer_id, member_id, rate) values (9, 10, 1);
insert into answer_rating (answer_id, member_id, rate) values (32, 3, 1);
insert into answer_rating (answer_id, member_id, rate) values (30, 22, 1);
insert into answer_rating (answer_id, member_id, rate) values (34, 25, -1);
insert into answer_rating (answer_id, member_id, rate) values (95, 22, 1);
insert into answer_rating (answer_id, member_id, rate) values (67, 10, -1);
insert into answer_rating (answer_id, member_id, rate) values (85, 22, -1);
insert into answer_rating (answer_id, member_id, rate) values (52, 8, -1);
insert into answer_rating (answer_id, member_id, rate) values (32, 2, 1);
insert into answer_rating (answer_id, member_id, rate) values (74, 17, 1);
insert into answer_rating (answer_id, member_id, rate) values (63, 22, 1);
insert into answer_rating (answer_id, member_id, rate) values (68, 22, -1);
insert into answer_rating (answer_id, member_id, rate) values (25, 13, -1);
insert into answer_rating (answer_id, member_id, rate) values (35, 3, 1);
insert into answer_rating (answer_id, member_id, rate) values (96, 10, 1);
insert into answer_rating (answer_id, member_id, rate) values (54, 23, 1);
insert into answer_rating (answer_id, member_id, rate) values (79, 6, 1);
insert into answer_rating (answer_id, member_id, rate) values (74, 3, -1);
insert into answer_rating (answer_id, member_id, rate) values (25, 18, -1);
insert into answer_rating (answer_id, member_id, rate) values (50, 19, 1);
insert into answer_rating (answer_id, member_id, rate) values (7, 14, 1);
insert into answer_rating (answer_id, member_id, rate) values (15, 17, 1);
insert into answer_rating (answer_id, member_id, rate) values (53, 3, -1);
insert into answer_rating (answer_id, member_id, rate) values (86, 17, -1);
insert into answer_rating (answer_id, member_id, rate) values (97, 7, 1);
insert into answer_rating (answer_id, member_id, rate) values (28, 10, -1);
insert into answer_rating (answer_id, member_id, rate) values (7, 5, -1);
insert into answer_rating (answer_id, member_id, rate) values (79, 20, -1);
insert into answer_rating (answer_id, member_id, rate) values (20, 6, -1);
insert into answer_rating (answer_id, member_id, rate) values (10, 11, -1);
insert into answer_rating (answer_id, member_id, rate) values (4, 9, -1);
insert into answer_rating (answer_id, member_id, rate) values (46, 7, -1);
insert into answer_rating (answer_id, member_id, rate) values (47, 6, 1);
insert into answer_rating (answer_id, member_id, rate) values (8, 19, -1);
insert into answer_rating (answer_id, member_id, rate) values (6, 5, 1);
```

```
insert into comment_rating (comment_id, member_id, rate) values (95, 11, -1);
insert into comment_rating (comment_id, member_id, rate) values (77, 23, 1);
insert into comment_rating (comment_id, member_id, rate) values (10, 16, -1);
```

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insert into comment_rating (comment_id, member_id, rate) values (22, 8, 1);
insert into comment_rating (comment_id, member_id, rate) values (111, 18, 1);
insert into comment_rating (comment_id, member_id, rate) values (117, 7, -1);
insert into comment_rating (comment_id, member_id, rate) values (17, 12, -1);
insert into comment_rating (comment_id, member_id, rate) values (67, 23, 1);
insert into comment_rating (comment_id, member_id, rate) values (115, 8, -1);
insert into comment_rating (comment_id, member_id, rate) values (12, 18, -1);
insert into comment_rating (comment_id, member_id, rate) values (24, 4, 1);
insert into comment_rating (comment_id, member_id, rate) values (119, 11, -1);
insert into comment_rating (comment_id, member_id, rate) values (67, 22, -1);
insert into comment_rating (comment_id, member_id, rate) values (129, 22, -1);
insert into comment_rating (comment_id, member_id, rate) values (46, 5, -1);
insert into comment_rating (comment_id, member_id, rate) values (67, 25, -1);
insert into comment_rating (comment_id, member_id, rate) values (33, 7, 1);
insert into comment_rating (comment_id, member_id, rate) values (5, 23, -1);
insert into comment_rating (comment_id, member_id, rate) values (4, 11, -1);
insert into comment_rating (comment_id, member_id, rate) values (84, 12, 1);
insert into comment_rating (comment_id, member_id, rate) values (74, 23, -1);
insert into comment_rating (comment_id, member_id, rate) values (93, 15, 1);
insert into comment_rating (comment_id, member_id, rate) values (116, 19, -1);
insert into comment_rating (comment_id, member_id, rate) values (117, 14, -1);
insert into comment_rating (comment_id, member_id, rate) values (57, 13, -1);

insert into question_report (question_id, member_id, "date", reason) values (40, 2,
'2017-12-27 03:05:35', 'Off context');
insert into question_report (question_id, member_id, "date", reason) values (30, 23,
'2018-02-18 22:24:56', 'Offensive language');
insert into answer_report (answer_id, member_id, "date", reason) values (54, 14,
'2017-10-22 01:41:43', 'Racist comments');
insert into answer_report (answer_id, member_id, "date", reason) values (100, 19,
'2018-03-29 14:15:39', 'Avoids the question entirely');
insert into comment_report (comment_id, member_id, "date", reason) values (96, 12,
'2018-03-25 21:08:09', 'Self promoting instead of giving feedback');
insert into comment_report (comment_id, member_id, "date", reason) values (83, 18,
'2017-11-16 20:46:32', 'Just a laugh');

```

Revision history

Changes made to the first submission:

1. Overall update ('thinking bigger') on tuples' estimated order of magnitude and estimated growth
2. Adjust performance indexes clustering so that there is, at most, one index subject to clustering per table
3. Add information about the indexes' impact on the most frequent (and related) INSERT/UPDATE operations (a new paragraph at the end of each index's justification)

GROUP1725, 08/04/2018

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