

A6: Integrity constraints, indexes, triggers, user functions and database populated with data

This artefact contains the physical schema of the database, the identification and characterization of the indexes, the support of data integrity rules with triggers and the definition of the database user-defined functions. This artefact also includes the complete database creation script, including all SQL necessary to define all integrity constraints, indexes and triggers.

1. Database Load

1.1. Estimation of Tuples

| Relation | Order of magnitude of tuples | Estimated growth (/day) |
|---------------------|------------------------------|-------------------------|
| R01 admin | units | units |
| R02 answer | hundreds | dozens |
| R03 answer_report | dozens | units |
| R04 auction | thousands | dozens |
| R05 auction_report | dozens | units |
| R06 bid | thousands | dozens |
| R07 city | dozens | units |
| R08 country | dozens | units |
| R09 follow | thousands | dozens |
| R10 image | thousands | dozens |
| R11 location | thousands | dozens |
| R12 notification | thousands | dozens |
| R13 product | thousands | dozens |
| R14 question | hundreds | dozens |
| R15 question_report | dozens | units |
| R16 review | thousands | dozens |
| R17 review_report | units | units |
| R18 user | thousands | dozens |
| R19 user_report | dozens | units |
| R20 watchlist | thousands | dozens |

1.2. Frequently Executed Queries

| | |
|---|---------------------------------|
| QUERY01 | What are the categories? |
| SELECT unnest(enum_range(NULL::category_type))::text; | |
| SELECT enum_range(NULL::category_type); | |
| QUERY02 | What's the most recent auction? |

```
SELECT product.name, auction.id
FROM auction
INNER JOIN product ON auction.product_id = product.id
ORDER BY id DESC
LIMIT 1;
```

QUERY03 How many active auction are there?

```
SELECT COUNT(*)
FROM auction WHERE now() < end_date;
```

QUERY04 What's the total value of the active auctions?

```
SELECT SUM(curr_bid)
FROM auction
WHERE now() < end_date;
```

QUERY05 What are the auctions with the highest price?

```
SELECT product.name, product.description, "user".username, "user".rating,
auction.curr_bid, auction.end_date - now() AS remaining_time
FROM auction
JOIN product ON auction.product_id = product.id
JOIN "user" ON auction.user_id = "user".id
WHERE now() < auction.end_date
ORDER BY curr_bid DESC
LIMIT 10;
```

QUERY06 What are the auctions with the lower prices?

```
SELECT product.name, product.description, "user".username, "user".rating,
auction.curr_bid, auction.end_date - now() AS remaining_time
FROM auction
JOIN product ON auction.product_id = product.id
JOIN "user" ON auction.user_id = "user".id
WHERE now() < auction.end_date
ORDER BY curr_bid ASC
LIMIT 10;
```

QUERY07 What are the most recent auctions?

```
SELECT product.name, product.description, "user".username, "user".rating,
auction.curr_bid, auction.end_date - now() AS remaining_time
FROM auction
JOIN product ON auction.product_id = product.id
JOIN "user" ON auction.user_id = "user".id
WHERE now() < auction.end_date
ORDER BY auction.id DESC
LIMIT 10;
```

QUERY08 What are the auctions ending soon?

```
SELECT product.name, product.description, "user".username, "user".rating,
auction.curr_bid, auction.end_date - now() AS remaining_time
FROM auction
JOIN product ON auction.product_id = product.id
JOIN "user" ON auction.user_id = "user".id
WHERE now() < auction.end_date
ORDER BY auction.end_date ASC
LIMIT 10;
```

QUERY09 Which are the top 10 rating sellers?

```
SELECT "user".username, "user".rating
FROM "user"
ORDER BY rating DESC
LIMIT 10;
```

QUERY10 Which are the most popular auctions (highest number of bids)?

```
SELECT auction.id
FROM bid
INNER JOIN auction ON bid.auction_id = auction.id
WHERE now() < auction.end_date
GROUP BY auction.id
ORDER BY COUNT(*) DESC
LIMIT 15;
```

QUERY11 What are the last 5 bids of an auction?

```
SELECT "user".username, bid.amount, bid.date
FROM auction
INNER JOIN bid ON auction.id = bid.auction_id
INNER JOIN "user" ON bid.user_id = "user".id
WHERE auction.id = ?
ORDER BY bid.date DESC
LIMIT 5;
```

QUERY12 What's the product's description of a certain auction?

```
SELECT product.description
FROM product
JOIN auction ON auction.product_id = product.id
WHERE auction.id = ?;
```

QUERY13 How many bids were made in a certain auction?

```
SELECT COUNT(*)
FROM bid
JOIN auction ON bid.auction_id = auction.id
WHERE auction.id = ?;
```

QUERY14 Who's the winner of a certain auction?

```
SELECT "user".username
FROM auction
JOIN bid ON auction.id = bid.auction_id AND auction.curr_bid = bid.amount
JOIN "user" ON bid.user_id = "user".id
WHERE now() > auction.end_date
AND auction.id = ?;
```

QUERY15 What's the seller short biography?

```
SELECT "user".short_bio
FROM "user"
INNER JOIN auction ON "user".id = auction.user_id
WHERE auction.id = ?;
```

QUERY16 How many reviews does the seller has?

```
SELECT COUNT(*)
FROM review
INNER JOIN bid ON review.bid_id = bid.id
INNER JOIN auction ON bid.auction_id = auction.id
INNER JOIN "user" ON auction.user_id = "user".id
WHERE "user".id = ?;
```

QUERY17 What are the questions asked in a specific auction?

```
SELECT "user".username, question.message, question.date, question.id
FROM question
JOIN auction ON question.auction_id = auction.id
JOIN "user" ON question.user_id = "user".id
WHERE auction.id = ?;
```

QUERY18 What is the answer to a specific question?

```
SELECT "user".username, answer.message, answer.date
FROM answer
JOIN question ON answer.question_id = question.id
JOIN "user" ON answer.user_id = "user".id
WHERE question.id = ?;
```

QUERY19

What are some similar auctions given a certain auction?

```
SELECT similarAuction.id, similarProduct.name, (
SELECT image.filename
FROM image
WHERE similarProduct.id = image.product_id
LIMIT 1
) AS image
FROM auction originalAuction
JOIN auction similarAuction ON originalAuction.id != similarAuction.id
JOIN product originalProduct ON originalAuction.product_id =
originalProduct.id
JOIN product similarProduct ON similarAuction.product_id = similarProduct.id
WHERE similarAuction.type = originalAuction.type
AND similarProduct.type && originalProduct.type
AND originalAuction.id = ?
LIMIT 8;
```

QUERY20 Who's the logged in user?

```
SELECT *
FROM "user"
WHERE "user".id = ?;
```

QUERY21

Is the user 'x' following user 'y'?

```
SELECT follow.date
FROM follow
WHERE user_followed_id = ? AND user_following_id = ?;
```

QUERY22 How many active auctions does a certain user have?

```
SELECT COUNT(*)
FROM auction
JOIN "user" ON auction.user_id = "user".id
WHERE now() < auction.end_date
AND "user".id = ?;
```

QUERY23 How many auctions has the user created?

```
SELECT COUNT(*)
FROM auction
JOIN "user" ON auction.user_id = "user".id
WHERE "user".id = ?;
```

QUERY24

What is the user selling?

```
SELECT product.name, (
SELECT image.filename
FROM image
WHERE image.product_id = product.id
LIMIT 1
) AS image, product.description, auction.curr_bid, auction.end_date - now()
AS remaining_time
FROM auction
JOIN product ON auction.product_id = product.id
JOIN "user" ON auction.user_id = "user".id
WHERE now() < auction.end_date
AND "user".id = ?;
```

| | |
|--|--|
| QUERY25 | What are the reviews made to the user? |
| SELECT review.rating, buyer.username AS reviewer_id, review.date, product.name, review.message FROM review INNER JOIN bid ON review.bid_id = bid.id INNER JOIN auction ON bid.auction_id = auction.id INNER JOIN "user" buyer ON bid.user_id = buyer.id INNER JOIN product ON auction.product_id = product.id INNER JOIN "user" seller ON auction.user_id = seller.id WHERE seller.id = ?; | |
| QUERY26 | What are the auctions won by the user? |
| SELECT product.name, product.description, auction.start_bid, auction.curr_bid, auction.end_date, seller.username FROM auction INNER JOIN product ON auction.product_id = product.id INNER JOIN bid ON auction.id = bid.auction_id AND auction.curr_bid = bid.amount INNER JOIN "user" winner ON bid.user_id = winner.id INNER JOIN "user" seller ON auction.user_id = seller.id WHERE now() > auction.end_date AND winner.id = ?; | |
| QUERY27 | Has the user 'x' made a review to auction 'y'? |
| SELECT review.* FROM review INNER JOIN bid ON review.bid_id = bid.id WHERE bid.auction_id = ? AND bid.user_id = ?; | |
| QUERY28 | Which users is a certain user following? |
| SELECT us1.profile_pic, us1.name, us1.username FROM follow INNER JOIN "user" us1 ON follow.user_followed_id = us1.id INNER JOIN "user" us2 ON follow.user_following_id = us2.id WHERE us2.id = ?; | |
| QUERY29 | What are the auctions with the selected filters? |
| SELECT product.name, product.description, "user".username, auction.curr_bid, auction.end_date - now() AS remaining_time, auction.id FROM auction JOIN product ON auction.product_id = product.id JOIN "user" ON auction.user_id = "user".id WHERE product.name LIKE ? AND product.type = ?::category_type[] AND auction.curr_bid BETWEEN ? AND ? AND auction.type = ?::auction_type AND auction.end_date BETWEEN ? AND ?; | |
| QUERY30 | What is the main image of an auction? |
| SELECT image.filename FROM image JOIN product ON image.product_id = product.id JOIN auction ON product.id = auction.product_id WHERE auction.id = ? LIMIT 1; | |
| QUERY31 | What are the images of an auction? |

```
SELECT image.filename
FROM image
JOIN product ON image.product_id = product.id
JOIN auction ON product.id = auction.product_id
WHERE auction.id = ?;
```

QUERY32 Which are the active notifications?

```
SELECT notification.*
FROM notification
INNER JOIN "user" ON notification.user_id = "user".id
WHERE is_new = TRUE AND "user".id = ?;
```

QUERY33 Which are the user's notifications?

```
SELECT *
FROM notification
WHERE user_id = ?
ORDER BY DATE DESC;
```

QUERY34 Get all user reports.

```
SELECT user_report.message, "user".username, user_report.date
FROM user_report
INNER JOIN "user" ON user_report.user_id = "user".id
ORDER BY user_report.date DESC;
```

QUERY35 Get all auction reports.

```
SELECT auction_report.message, auction.id AS auction_id, "user".username
FROM auction_report
INNER JOIN auction ON auction_report.auction_id = auction.id
INNER JOIN "user" ON auction_report.user_id = "user".id
ORDER BY auction_report.date DESC;
```

QUERY36 Get all review reports.

```
SELECT review_report.message, review.id, "user".username
FROM review_report
JOIN review ON review_report.review_id = review.id
JOIN bid ON review.bid_id = bid.id
JOIN "user" ON bid.user_id = "user".id
ORDER BY review_report.date DESC;
```

QUERY37 Get all question reports.

```
SELECT question_report.message, question.id AS question_id, "user".username,
question_report.date
FROM question_report
JOIN question ON question_report.question_id = question.id
JOIN "user" ON question_report.user_id = "user".id
ORDER BY DATE DESC;
```

QUERY38 Get all answer reports.

```
SELECT answer_report.message, answer.id AS answer_id, "user".username,
answer_report.date
FROM answer_report
JOIN answer ON answer_report.answer_id = answer.id
JOIN "user" ON answer_report.user_id = "user".id
ORDER BY DATE DESC;
```

QUERY39 Which are the registered users?

```
SELECT "user".id, "user".username, "user".email
FROM "user"
ORDER BY id ASC;
```

QUERY40 What are the auctions in the watchlist of a certain user?

```

SELECT product.name, (
SELECT image.filename
FROM image
WHERE image.product_id = product.id
LIMIT 1
) AS image, product.description, auction.curr_bid, now() - auction.end_date
AS remaining_time, seller.username AS seller_username, seller.rating
FROM watchlist
JOIN auction ON watchlist.auction_id = auction.id
JOIN product ON auction.product_id = product.id
JOIN "user" own ON watchlist.user_id = own.id
JOIN "user" seller ON auction.user_id = seller.id
WHERE own.id = ?;

```

QUERY41 (Activity) What are the reviews a certain user has done?

```

SELECT review.id AS review_id, auction.id AS auction_id, seller.username AS
seller_username, review.date
FROM review
JOIN bid ON review.bid_id = bid.id
JOIN auction ON bid.auction_id = auction.id
JOIN "user" seller ON auction.user_id = seller.id
JOIN "user" own ON bid.user_id = own.id
WHERE own.id = ?
ORDER BY review.date DESC;

```

QUERY42 (Activity) What are the bids a certain user has done?

```

SELECT bid.amount, auction.id AS auction_id, bid.date
FROM bid
INNER JOIN "user" own ON bid.user_id = own.id
JOIN auction ON bid.auction_id = auction.id
JOIN "user" seller ON auction.user_id = seller.id
WHERE own.id = ?
ORDER BY bid.date;

```

QUERY43 (Activity) What are the follows a certain user has done?

```

SELECT following.username AS following, followed.username AS followed
FROM follow
JOIN "user" followed ON follow.user_followed_id = followed.id
JOIN "user" following ON follow.user_following_id = following.id
WHERE following.id = ?
ORDER BY follow.date;

```

QUERY44 (Activity) What are the auctions won by a certain user?

```

SELECT product.name, product.description, auction.start_bid,
auction.curr_bid, auction.end_date, seller.username, auction.end_date
FROM auction
JOIN product ON auction.product_id = product.id
JOIN bid ON auction.id = bid.auction_id AND auction.curr_bid = bid.amount
JOIN "user" winner ON bid.user_id = winner.id
JOIN "user" seller ON auction.user_id = seller.id
WHERE now() > auction.end_date
AND winner.id = ?
ORDER BY auction.end_date DESC;

```

QUERY45 (Activity) What are the questions posted by a certain user?

```

SELECT own.username AS own_username, question.id AS question_id, auction.id
AS auction_id, seller.username AS seller_username, question.date
FROM question
JOIN "user" own ON question.user_id = own.id
JOIN auction ON question.auction_id = auction.id
JOIN "user" seller ON auction.user_id = seller.id
WHERE own.id = ?
ORDER BY question.date DESC;

```

QUERY46 (Activity) What are the auctions added to the watch list by a certain user?

```

SELECT "user".username, auction.id, product.name, watchlist.date
FROM watchlist
JOIN "user" ON watchlist.user_id = "user".id
JOIN auction ON watchlist.auction_id = auction.id
JOIN product ON auction.product_id = product.id
WHERE "user".id = ?
ORDER BY watchlist.date DESC;

```

1.3. Frequently Executed Updates

UPDATE01 Update user's information

```

UPDATE "user"
SET email = ?,
    name = ?,
    short_bio = ?,
    full_bio = ?,
    hashed_pass = ?,
    phone = ?,
    location_id = ?,
    profile_pic = ?
WHERE id = ? ;

```

UPDATE02 Update an answer

```

UPDATE answer
SET DATE = now(),
    message = ?
WHERE id = ?;

```

UPDATE03 Update a question

```

UPDATE question
SET DATE = now(),
    message = ?,
    title = ?
WHERE id = ?;

```

UPDATE04 Update an auction

```

UPDATE auction
SET end_date = ?,
    start_date = ?
WHERE id = ?;

```

UPDATE05 Update a review

```

UPDATE review
SET rating = ?,
    message = ?,
    DATE = now()
WHERE id = ?;

```

UPDATE06 Update if an user wants to receive notifications from na auction


```
UPDATE watchlist
SET notifications = ?
WHERE user_id = ? AND auction_id = ?;
```

UPDATE07 Update the current bid value of an auction

```
UPDATE auction
SET curr_bid = ?
WHERE id = ?;
```

1.4. Frequently Executed Deletes

DELETE01 Delete an auction

```
DELETE FROM auction
WHERE id = ?;
```

DELETE02 Delete an answer

```
DELETE FROM answer
WHERE id = ?;
```

DELETE03 Delete a question

```
DELETE FROM question
WHERE id = ?;
```

DELETE04 Delete a notification

```
DELETE FROM notification
WHERE id = ?;
```

2. Indexes

| | | | |
|--|--|------------------------|-------------------|
| IDX01 | auction | user_id | Hash |
| Justification | Used on queries to get the auctions of an user. Hash type because the equal comparison. It is not clustered, because usually few auctions are returned. | | |
| CREATE INDEX auction_user_id_index ON auction USING HASH (user_id); | | | |
| IDX02 | auction | end_date | B-tree[clustered] |
| Justification | Used to retrieve all active auctions. B-tree because the '<' comparison in now() < end_date. Clustered because many auctions are retrieved. | | |
| CREATE INDEX auction_end_date_index ON auction (end_date); CLUSTER auction USING auction_end_date_index; | | | |
| IDX03 | bid | auction_id | Hash |
| Justification | Used to get the bids of an auction. Hash because the '=' comparison. Not clustered because usually there are not many bids retrieved. | | |
| CREATE INDEX bid_auction_id_index ON bid USING HASH (auction_id); | | | |
| IDX04 | bid | user_id | Hash |
| Justification | Used to get the bids of an user. Hash because the '=' comparison. Not clustered because usually there are not many bids retrieved. | | |
| CREATE INDEX bid_user_id_index ON bid USING HASH (user_id); | | | |
| IDX05 | question | auction_id | Hash |
| Justification | The auction page always contains the questions of the respective auction. Hash because the '=' comparison. Not clustered because an auction, normally, do not contains many questions. | | |
| CREATE INDEX question_auction_id_index ON question USING HASH (auction_id); | | | |
| IDX06 | answer | <question id, user id> | Hash |

| | | | |
|---|--|---------|------|
| Justification | Multi-Attribute index because an answer appears always when a question appears and it always necessary to know the respective author (user). Hash because the '=' comparisons. Not clustered, because there is just one possible answer to a question. | | |
| CREATE INDEX answer_question_id_user_id_index ON answer (question_id, user_id); | | | |
| IDX07 | review | bid_id | Hash |
| Justification | Used to know the review of the highest bid of an auction. Hash because the '=' comparison. Not clustered because there is only one review. | | |
| CREATE INDEX review_bid_id_index ON review USING HASH (bid_id); | | | |
| IDX08 | notification | user_id | Hash |
| Justification | It is always used when an user want to know his notifications. Hash because the '=' comparison. Not clustered, because there are few notifications for each user. | | |
| CREATE INDEX notification_user_id_index ON notification USING HASH (user id); | | | |

3. Triggers

| | |
|--|--|
| RN01 | A seller cannot bid on his own auction. |
| <pre> CREATE FUNCTION seller_cannot_bid() RETURNS TRIGGER LANGUAGE plpgsql AS \$\$ BEGIN IF EXISTS (SELECT auction.user_id FROM auction WHERE auction.id = NEW.auction_id AND auction.user_id = NEW.user_id) THEN RAISE EXCEPTION '% cannot have bid in his own auction', NEW.user_id; ELSE RETURN NEW; END IF; END; \$\$; CREATE TRIGGER seller_cannot_bid BEFORE INSERT OR UPDATE ON bid FOR each ROW EXECUTE PROCEDURE seller_cannot_bid(); </pre> | |
| RN02 | Only a seller can answer the questions of his auction. |

```
CREATE FUNCTION answer_is_of_seller() RETURNS TRIGGER
  LANGUAGE plpgsql
AS $$
BEGIN
  IF EXISTS (SELECT auction.user_id FROM auction
             WHERE auction.id = NEW.auction_id AND auction.user_id !=
NEW.user_id)
  THEN
    RAISE EXCEPTION 'Only the seller can answer.';
  ELSE
    RETURN NEW;
  END IF;
END;
$$
;
```

```
CREATE TRIGGER answer_is_of_seller
  BEFORE INSERT OR UPDATE
  ON answer
  FOR each ROW
  EXECUTE PROCEDURE answer_is_of_seller()
;
```

| | |
|-------------|---|
| RN03 | A new bid must be higher than the current one. If it is, then a notification is sent to the auction seller and to the current highest bidder. |
|-------------|---|

```
CREATE OR REPLACE FUNCTION update_auction ()
  RETURNS TRIGGER AS
$$
BEGIN
  IF NEW.date >
    (SELECT end_date
     FROM auction
     WHERE auction.id = NEW.auction_id)
  THEN RAISE EXCEPTION 'Error: Auction closed!';
  ELSEIF NEW.amount >
    (SELECT amount
     FROM bid
     WHERE bid.auction_id = NEW.auction_id
     ORDER BY amount DESC LIMIT 1)
  THEN
    INSERT INTO notification (user_id, message, TYPE, DATE, is_new) VALUES(
      (SELECT bid.user_id
       FROM bid
       WHERE bid.auction_id = NEW.auction_id
       ORDER BY bid.amount DESC LIMIT 1),
      'Your bid on the auction ' ||
      (SELECT product.name
       FROM product
       INNER JOIN auction ON auction.product_id = product.id
       WHERE auction.id = NEW.auction_id) || ' was surpassed.',
      'Auction',
      now(),
      'true'
    );
    INSERT INTO notification (user_id, message, TYPE, DATE, is_new) VALUES(
      (SELECT auction.user_id
       FROM auction
       WHERE auction.id = NEW.auction_id),
      'The user ' ||
      (SELECT username
       FROM "user"
       WHERE id = NEW.user_id) ||
      ' has bid on the auction ' ||
      (SELECT product.name
       FROM product
       INNER JOIN auction ON auction.product_id = product.id
       WHERE auction.id = NEW.auction_id) || '.',
      'Auction',
      now(),
      'true'
    );
    UPDATE auction
      SET curr_bid = NEW.amount
      WHERE id = NEW.auction_id;
  ELSE RAISE EXCEPTION 'Error: Bid amount must be higher than the current bid.';
  END IF;
  RETURN NEW;
END;
$$ LANGUAGE plpgsql;

CREATE TRIGGER new_bid
BEFORE INSERT
  ON bid
FOR EACH ROW EXECUTE PROCEDURE update_auction();
```

| | |
|--|---|
| RN04 | The user ranking depends on the ranking of his reviews. |
| <pre> CREATE FUNCTION review_trigger() RETURNS TRIGGER AS \$\$ DECLARE seller_id INTEGER; BEGIN SELECT "user".id FROM "user" INNER JOIN bid ON bid.id = NEW.bid_id INNER JOIN auction ON bid.auction_id = auction.id WHERE "user".id = auction.user_id INTO seller_id; UPDATE "user" SET rating = (SELECT AVG(review.rating) FROM review, bid, auction WHERE review.bid_id = bid.id AND bid.auction_id = auction.id AND auction.user_id = seller_id) WHERE "user".id = seller_id; RETURN NULL; END; \$\$ LANGUAGE plpgsql; CREATE TRIGGER review_trigger AFTER INSERT OR UPDATE ON review FOR each ROW EXECUTE PROCEDURE review_trigger(); </pre> | |

| | |
|--|--|
| RN05 | An user receives a notification when an auction is reported (to simplify, only this trigger is presented, but there are similar triggers for each type of report. All of them are at the SQL Code section. |
| <pre> CREATE OR REPLACE FUNCTION auction_report_notification () RETURNS TRIGGER AS \$\$ BEGIN INSERT INTO notification (user_id, message, TYPE, DATE, is_new) VALUES((SELECT "user".id FROM "user" INNER JOIN auction ON auction.id = NEW.auction_id WHERE "user".id = auction.user_id), 'Your auction ' (SELECT product.name FROM product INNER JOIN auction ON auction.product_id = product.id WHERE auction.id = NEW.auction_id) ' has been reported.', 'Warning', now(), TRUE); RETURN NEW; END; \$\$ LANGUAGE plpgsql; </pre> | |
| RN06 | All the users receive notifications when an auction is removed. |

```

CREATE OR REPLACE FUNCTION warn_bidders ()
  RETURNS TRIGGER AS
$$
DECLARE
  _bidder INTEGER;
  _auction VARCHAR(64);
BEGIN
  FOR _bidder IN (
    SELECT DISTINCT "user".id
    FROM "user", bid
    WHERE "user".id = bid.user_id AND bid.auction_id = OLD.id)
  LOOP
    SELECT product.name
    FROM product
    WHERE OLD.product_id = product.id
    INTO _auction;

    INSERT INTO notification (user_id, message, TYPE, DATE, is_new) VALUES(
      _bidder,
      'The auction ' || _auction || ' and respective bids/posts were
removed.',
      'Auction',
      now(),
      TRUE
    );
  END LOOP;
  RETURN OLD;
END;
$$ LANGUAGE plpgsql;

CREATE TRIGGER auction_deleted
BEFORE DELETE
  ON auction
FOR EACH ROW EXECUTE PROCEDURE warn_bidders ();

```

4. SQL Code

[lbaw16xx_create.sql](#)

```
-- Here goes the SQL code - CREATE TABLES, INDEXES, TRIGGERS, UDFs.
```

```
CREATE SCHEMA public;
```

```
CREATE TYPE auction_type AS ENUM (
  'Default',
  'Dutch',
  'Sealed Bid'
);
```

```
CREATE TYPE category_type AS ENUM (
  'Art',
  'Tickets and Trips',

```

```

'Dolls and Bears',
'Toys and Hobbies',
'Cars and Vehicles',
'Sports Souvenirs',
'Home and Garden',
'Collectibles',
'Electronics and Computers',
'Movies and DVDs',
'Musical Instruments',
'Jewelry',
'Books',
'Cloths and Accessories',
'Health and Beauty',
'Video Games',
'Sexual Toys'
);

CREATE TYPE notification_type AS ENUM (
    'Auction',
    'Question',
    'Answer',
    'Win',
    'Warning'
);

CREATE TABLE admin (
    id SERIAL NOT NULL,
    username CHARACTER VARYING(32) NOT NULL,
    email CHARACTER VARYING(64) NOT NULL,
    hashed_pass CHARACTER VARYING(32) NOT NULL,
    CONSTRAINT admin_pkey PRIMARY KEY (id),
    CONSTRAINT admin_email_uindex UNIQUE (email),
    CONSTRAINT admin_username_uindex UNIQUE (username)
);

CREATE TABLE answer (
    id SERIAL NOT NULL,
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,
    message text NOT NULL,
    question_id INTEGER NOT NULL,
    user_id INTEGER NOT NULL,
    auction_id INTEGER NOT NULL,
    CONSTRAINT answer_pkey PRIMARY KEY (id),
    CONSTRAINT answer_auction_fk FOREIGN KEY (auction_id) REFERENCES
    auction(id) ON DELETE CASCADE,
    CONSTRAINT answer_question_fk FOREIGN KEY (question_id) REFERENCES
    question(id) ON DELETE CASCADE,
    CONSTRAINT answer_user_fk FOREIGN KEY (user_id) REFERENCES USER(id)
    ON DELETE SET NULL
);

```

```
CREATE TABLE answer_report (  
    id SERIAL NOT NULL,  
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,  
    message text NOT NULL,  
    answer_id INTEGER NOT NULL,  
    CONSTRAINT answer_report_pkey PRIMARY KEY (id),  
    CONSTRAINT answer_report_fk FOREIGN KEY (answer_id) REFERENCES  
answer(id) ON DELETE CASCADE  
);  
  
CREATE TABLE auction (  
    id SERIAL NOT NULL,  
    start_bid DOUBLE PRECISION NOT NULL,  
    curr_bid DOUBLE PRECISION NOT NULL,  
    start_date TIMESTAMP WITHOUT TIME zone NOT NULL,  
    end_date TIMESTAMP WITHOUT TIME zone NOT NULL,  
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,  
    TYPE auction_type NOT NULL,  
    user_id INTEGER NOT NULL,  
    product_id INTEGER NOT NULL,  
    CONSTRAINT auction_pkey PRIMARY KEY (id),  
    CONSTRAINT auction_user_fk FOREIGN KEY (user_id) REFERENCES  
USER(id) ON DELETE CASCADE,  
    CONSTRAINT auction_product_fk FOREIGN KEY (product_id) REFERENCES  
product(id) ON DELETE CASCADE,  
    CONSTRAINT auction_date_ck CHECK (DATE < start_date AND start_date  
< end_date)  
);  
  
CREATE TABLE auction_report (  
    id SERIAL NOT NULL,  
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,  
    message text NOT NULL,  
    auction_id INTEGER NOT NULL,  
    CONSTRAINT auction_report_pkey PRIMARY KEY (id),  
    CONSTRAINT auction_report_fk FOREIGN KEY (auction_id) REFERENCES  
auction(id) ON DELETE CASCADE  
);  
  
CREATE TABLE bid (  
    id SERIAL NOT NULL,  
    amount DOUBLE PRECISION NOT NULL,  
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,  
    user_id INTEGER NOT NULL,  
    auction_id INTEGER NOT NULL,  
    CONSTRAINT bid_pkey PRIMARY KEY (id),  
    CONSTRAINT bid_auction_fk FOREIGN KEY (auction_id) REFERENCES  
auction(id) ON DELETE CASCADE,  
    CONSTRAINT bid_user_fk FOREIGN KEY (user_id) REFERENCES USER(id) ON  
DELETE SET NULL,  
    CONSTRAINT bid_amount_ck CHECK (amount > ())::DOUBLE PRECISION)
```



```
);

CREATE TABLE city (
    id SERIAL NOT NULL,
    country_id INTEGER NOT NULL,
    name CHARACTER VARYING(32) NOT NULL,
    CONSTRAINT city_pkey PRIMARY KEY (id),
    CONSTRAINT city_fk FOREIGN KEY (country_id) REFERENCES country(id)
ON DELETE CASCADE
);

CREATE TABLE country (
    id SERIAL NOT NULL,
    name CHARACTER VARYING(64) NOT NULL,
    CONSTRAINT country_pkey PRIMARY KEY (id),
    CONSTRAINT country_name_uindex UNIQUE (name)
);

CREATE TABLE follow (
    user_followed_id INTEGER NOT NULL,
    user_following_id INTEGER NOT NULL,
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,
    CONSTRAINT follow_pk PRIMARY KEY (user_following_id,
user_followed_id),
    CONSTRAINT follow_user_followed_fk FOREIGN KEY (user_followed_id)
REFERENCES USER(id) ON DELETE CASCADE,
    CONSTRAINT follow_user_following_fk FOREIGN KEY (user_following_id)
REFERENCES USER(id) ON DELETE CASCADE
);

CREATE TABLE image (
    id SERIAL NOT NULL,
    filename text NOT NULL,
    product_id INTEGER NOT NULL,
    CONSTRAINT image_pkey PRIMARY KEY (id),
    CONSTRAINT image_filename_uindex UNIQUE (filename),
    CONSTRAINT image_fk FOREIGN KEY (product_id) REFERENCES product(id)
ON DELETE CASCADE
);

CREATE TABLE location (
    id SERIAL NOT NULL,
    city_id INTEGER NOT NULL,
    address CHARACTER VARYING(64) NOT NULL,
    CONSTRAINT location_pkey PRIMARY KEY (id),
    CONSTRAINT location_fk FOREIGN KEY (city_id) REFERENCES city(id)
);

CREATE TABLE notification (
    id SERIAL NOT NULL,
    message CHARACTER VARYING(128) NOT NULL,
```

```
TYPE notification_type NOT NULL,
user_id INTEGER NOT NULL,
is_new BOOLEAN NOT NULL,
DATE TIMESTAMP WITHOUT TIME zone NOT NULL,
CONSTRAINT notification_pkey PRIMARY KEY (id),
CONSTRAINT notification_fk FOREIGN KEY (user_id) REFERENCES
USER(id) ON DELETE CASCADE
);

CREATE TABLE product (
    id SERIAL NOT NULL,
    TYPE category_type[] NOT NULL,
    name CHARACTER VARYING(64) NOT NULL,
    description text NOT NULL,
    CONSTRAINT product_pkey PRIMARY KEY (id)
);

CREATE TABLE question (
    id SERIAL NOT NULL,
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,
    message text NOT NULL,
    title CHARACTER VARYING(64) NOT NULL,
    user_id INTEGER NOT NULL,
    auction_id INTEGER NOT NULL,
    CONSTRAINT question_pkey PRIMARY KEY (id),
    CONSTRAINT question_auction_fk FOREIGN KEY (auction_id) REFERENCES
    auction(id) ON DELETE CASCADE,
    CONSTRAINT question_user_fk FOREIGN KEY (user_id) REFERENCES
    USER(id) ON DELETE SET NULL
);

CREATE TABLE question_report (
    id SERIAL NOT NULL,
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,
    message text NOT NULL,
    question_id INTEGER NOT NULL,
    CONSTRAINT question_report_pkey PRIMARY KEY (id),
    CONSTRAINT question_report_fk FOREIGN KEY (question_id) REFERENCES
    question(id) ON DELETE CASCADE
);

CREATE TABLE review (
    id SERIAL NOT NULL,
    rating INTEGER NOT NULL,
    message text NOT NULL,
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,
    bid_id INTEGER NOT NULL,
    CONSTRAINT review_pkey PRIMARY KEY (id),
    CONSTRAINT review_fk FOREIGN KEY (bid_id) REFERENCES bid(id),
    CONSTRAINT review_rating_ck CHECK ((rating >= ) AND (rating <= 10))
);
```

```
CREATE TABLE review_report (  
    id SERIAL NOT NULL,  
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,  
    message text NOT NULL,  
    review_id INTEGER NOT NULL,  
    CONSTRAINT review_report_pkey PRIMARY KEY (id),  
    CONSTRAINT review_report_fk FOREIGN KEY (review_id) REFERENCES  
review(id) ON DELETE CASCADE  
);  
  
CREATE TABLE USER (  
    id SERIAL NOT NULL,  
    username CHARACTER VARYING(64) NOT NULL,  
    email CHARACTER VARYING(64) NOT NULL,  
    name CHARACTER VARYING(64) NOT NULL,  
    short_bio CHARACTER VARYING(255) NOT NULL,  
    full_bio text,  
    hashed_pass CHARACTER VARYING(64) NOT NULL,  
    phone CHARACTER VARYING(20),  
    register_date TIMESTAMP WITHOUT TIME zone NOT NULL,  
    location_id INTEGER,  
    profile_pic CHARACTER VARYING(72),  
    rating INTEGER,  
    CONSTRAINT user_pkey PRIMARY KEY (id),  
    CONSTRAINT user_email_uindex UNIQUE (email),  
    CONSTRAINT user_username_uindex UNIQUE (username),  
    CONSTRAINT user_rating_ck CHECK ((rating >= ) AND (rating <= 10)),  
    CONSTRAINT user_fk FOREIGN KEY (location_id) REFERENCES  
location(id) ON DELETE SET NULL  
);  
  
CREATE TABLE user_report (  
    id SERIAL NOT NULL,  
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,  
    message text NOT NULL,  
    user_id INTEGER NOT NULL,  
    CONSTRAINT user_report_pkey PRIMARY KEY (id),  
    CONSTRAINT user_report_fk FOREIGN KEY (user_id) REFERENCES USER(id)  
ON DELETE CASCADE  
);  
  
CREATE TABLE watchlist (  
    auction_id INTEGER NOT NULL,  
    user_id INTEGER NOT NULL,  
    notifications BOOLEAN NOT NULL,  
    DATE TIMESTAMP WITHOUT TIME zone NOT NULL,  
    CONSTRAINT watchlist_pk PRIMARY KEY (auction_id, user_id),  
    CONSTRAINT watchlist_auction_fk FOREIGN KEY (auction_id) REFERENCES  
auction(id) ON DELETE CASCADE,  
    CONSTRAINT watchlist_user_fk FOREIGN KEY (user_id) REFERENCES
```

```
USER(id) ON DELETE CASCADE
);

CREATE UNIQUE INDEX admin_email_uindex ON admin USING btree (email);

CREATE UNIQUE INDEX admin_username_uindex ON admin USING btree
(username);

CREATE UNIQUE INDEX country_name_uindex ON country USING btree (name);

CREATE UNIQUE INDEX image_filename_uindex ON image USING btree
(filename);

CREATE UNIQUE INDEX user_email_uindex ON "user" USING btree (email);

CREATE UNIQUE INDEX user_username_uindex ON "user" USING btree
(username);

CREATE INDEX auction_user_id_index ON auction USING HASH (user_id);

CREATE INDEX auction_end_date_index ON auction (end_date); CLUSTER
auction USING auction_end_date_index;

CREATE INDEX bid_auction_id_index ON bid USING HASH (auction_id);

CREATE INDEX bid_user_id_index ON bid USING HASH (user_id);

CREATE INDEX question_auction_id_index ON question USING HASH
(auction_id);

CREATE INDEX answer_question_id_user_id_index ON answer (question_id,
user_id);

CREATE INDEX review_bid_id_index ON review USING HASH (bid_id);

CREATE INDEX notification_user_id_index ON notification USING HASH
(user_id);

CREATE OR REPLACE FUNCTION auction_report_notification ()
    RETURNS TRIGGER AS
$$
    BEGIN
        INSERT INTO notification (user_id, message, TYPE, DATE, is_new)
VALUES(
        (SELECT "user".id
         FROM "user"
         INNER JOIN auction ON auction.id = NEW.auction_id
         WHERE "user".id = auction.user_id),
        'Your auction ' ||
        (SELECT product.name
         FROM product
```

```

        INNER JOIN auction ON auction.product_id = product.id
        WHERE auction.id = NEW.auction_id) || ' has been
reported.',
        'Warning',
        now(),
        TRUE
    );
    RETURN NEW;
END;
$$ LANGUAGE plpgsql;

CREATE TRIGGER new_auction_report
AFTER INSERT
ON auction_report
FOR EACH ROW EXECUTE PROCEDURE auction_report_notification ();

CREATE OR REPLACE FUNCTION answer_report_notification ()
RETURNS TRIGGER AS
$$
BEGIN
    INSERT INTO notification (user_id, message, TYPE, DATE, is_new)
VALUES(
    (SELECT "user".id
     FROM "user"
     INNER JOIN answer ON answer.id = NEW.answer_id
     WHERE "user".id = answer.user_id),
    'Your answer ' ||
    (SELECT answer.message
     FROM answer
     WHERE answer.id = NEW.answer_id) || ' has been reported.',
    'Warning',
    now(),
    TRUE
    );
    RETURN NEW;
END;
$$ LANGUAGE plpgsql;

CREATE TRIGGER new_answer_report
AFTER INSERT
ON answer_report
FOR EACH ROW EXECUTE PROCEDURE answer_report_notification ();

CREATE OR REPLACE FUNCTION question_report_notification ()
RETURNS TRIGGER AS
$$
BEGIN
    INSERT INTO notification (user_id, message, TYPE, DATE, is_new)
VALUES(
    (SELECT "user".id
     FROM "user"

```

```

            INNER JOIN question ON question.id =
NEW.question_id
        WHERE "user".id = question.user_id),
        'Your question ' ||
        (SELECT question.message
        FROM question
        WHERE question.id = NEW.question_id) || ' has been
reported.',
        'Warning',
        now(),
        TRUE
    );
    RETURN NEW;
END;
$$ LANGUAGE plpgsql;

CREATE TRIGGER new_question_report
AFTER INSERT
ON question_report
FOR EACH ROW EXECUTE PROCEDURE question_report_notification ();

CREATE OR REPLACE FUNCTION review_report_notification ()
RETURNS TRIGGER AS
$$
BEGIN
    INSERT INTO notification (user_id, message, TYPE, DATE, is_new)
VALUES(
        (SELECT "user".id
        FROM "user"
        INNER JOIN review ON review.id = NEW.review_id
        INNER JOIN bid ON review.bid_id = bid.id
        WHERE "user".id = bid.user_id),
        'Your review ' ||
        (SELECT review.message
        FROM review
        WHERE review.id = NEW.review_id) || ' has been reported.',
        'Warning',
        now(),
        TRUE
    );
    RETURN NEW;
END;
$$ LANGUAGE plpgsql;

CREATE TRIGGER new_review_report
AFTER INSERT
ON review_report
FOR EACH ROW EXECUTE PROCEDURE review_report_notification ();

CREATE OR REPLACE FUNCTION user_report_notification ()
RETURNS TRIGGER AS

```

```
$$
BEGIN
    INSERT INTO notification (user_id, message, TYPE, DATE, is_new)
VALUES(
    NEW.user_id,
    'You have been reported due to the following reasons: ' ||
NEW.message || '.',
    'Warning',
    now(),
    TRUE
    );
    RETURN NEW;
END;
$$ LANGUAGE plpgsql;

CREATE TRIGGER new_user_report
AFTER INSERT
ON user_report
FOR EACH ROW EXECUTE PROCEDURE user_report_notification ();

CREATE FUNCTION seller_cannot_bid() RETURNS TRIGGER
LANGUAGE plpgsql
AS $$
BEGIN

    IF EXISTS (SELECT auction.user_id FROM auction
                WHERE auction.id = NEW.auction_id AND auction.user_id =
NEW.user_id)
    THEN
        RAISE EXCEPTION '% cannot have bid in his own auction',
NEW.user_id;
    ELSE
        RETURN NEW;
    END IF;

END;
$$
;

CREATE TRIGGER seller_cannot_bid
BEFORE INSERT OR UPDATE
ON bid
FOR each ROW
EXECUTE PROCEDURE seller_cannot_bid()
;

CREATE FUNCTION answer_is_of_seller() RETURNS TRIGGER
LANGUAGE plpgsql
AS $$
BEGIN
```

```
    IF EXISTS (SELECT auction.user_id FROM auction
               WHERE auction.id = NEW.auction_id AND auction.user_id !=
NEW.user_id)
    THEN
        RAISE EXCEPTION 'Only the seller can answer.';
    ELSE
        RETURN NEW;
    END IF;

END;
$$
;

CREATE TRIGGER answer_is_of_seller
    BEFORE INSERT OR UPDATE
    ON answer
    FOR each ROW
    EXECUTE PROCEDURE answer_is_of_seller()
;

CREATE OR REPLACE FUNCTION warn_bidders ()
    RETURNS TRIGGER AS
$$
DECLARE
    _bidder INTEGER;
    _auction VARCHAR(64);
BEGIN
    FOR _bidder IN (
        SELECT DISTINCT "user".id
        FROM "user", bid
        WHERE "user".id = bid.user_id AND bid.auction_id = OLD.id)

    LOOP
        SELECT product.name
        FROM product
        WHERE OLD.product_id = product.id
        INTO _auction;

        INSERT INTO notification (user_id, message, TYPE, DATE, is_new)
VALUES(
    _bidder,
    'The auction ' || _auction || ' and respectives bids/posts were
removed.',
    'Auction',
    now(),
    TRUE
    );
    END LOOP;
    RETURN OLD;
END;
$$ LANGUAGE plpgsql;
```



```

CREATE TRIGGER auction_deleted
BEFORE DELETE
ON auction
FOR EACH ROW EXECUTE PROCEDURE warn_bidders ();

CREATE OR REPLACE FUNCTION update_auction ()
RETURNS TRIGGER AS
$$
BEGIN
    IF NEW.date >
        (SELECT end_date
         FROM auction
         WHERE auction.id = NEW.auction_id)
    THEN RAISE EXCEPTION 'Error: Auction closed!';
    ELSEIF NEW.amount >
        (SELECT amount
         FROM bid
         WHERE bid.auction_id = NEW.auction_id
         ORDER BY amount DESC LIMIT 1)
    THEN
        INSERT INTO notification (user_id, message, TYPE, DATE, is_new)
VALUES(
    (SELECT bid.user_id
     FROM bid
     WHERE bid.auction_id = NEW.auction_id
     ORDER BY bid.amount DESC LIMIT 1),
    'Your bid on the auction ' ||
    (SELECT product.name
     FROM product
     INNER JOIN auction ON auction.product_id = product.id
     WHERE auction.id = NEW.auction_id) || ' was surpassed.',
    'Auction',
    now(),
    'true'
);
    INSERT INTO notification (user_id, message, TYPE, DATE, is_new)
VALUES(
    (SELECT auction.user_id
     FROM auction
     WHERE auction.id = NEW.auction_id),
    'The user ' ||
    (SELECT username
     FROM "user"
     WHERE id = NEW.user_id) ||
    ' has bid on the auction ' ||
    (SELECT product.name
     FROM product
     INNER JOIN auction ON auction.product_id = product.id
     WHERE auction.id = NEW.auction_id) || '.',
    'Auction',

```

```

        now(),
        'true'
    );
    UPDATE auction
    SET curr_bid = NEW.amount
    WHERE id = NEW.auction_id;
    ELSE RAISE EXCEPTION 'Error: Bid amount must be higher than the
current bid.';
    END IF;
    RETURN NEW;
END;
$$ LANGUAGE plpgsql;

CREATE TRIGGER new_bid
BEFORE INSERT
ON bid
FOR EACH ROW EXECUTE PROCEDURE update_auction();

```

lbaw16xx_data.sql

```

-- Admin

INSERT INTO public.admin (id, username, email, hashed_pass) VALUES (1,
'renato', 'Donec@rutrumloremac.ca', 'YDF54RBV9VG');
INSERT INTO public.admin (id, username, email, hashed_pass) VALUES (2,
'evenilink', 'sem.eget@odio.co.uk', 'TRD70YRH4HI');
INSERT INTO public.admin (id, username, email, hashed_pass) VALUES (3,
'hant', 'semper.auctor.Mauris@in.com', 'DIK92SGU6NZ');
INSERT INTO public.admin (id, username, email, hashed_pass) VALUES (4,
'dcepa95', 'asfasf.auctor.Mauris@in.com', 'DIK65GGU6NZ');

-- Country

INSERT INTO public.country (id, name) VALUES (1, 'Monaco');
INSERT INTO public.country (id, name) VALUES (2, 'Ireland');
INSERT INTO public.country (id, name) VALUES (3, 'France');
INSERT INTO public.country (id, name) VALUES (4, 'Croatia');
INSERT INTO public.country (id, name) VALUES (5, 'Finland');
INSERT INTO public.country (id, name) VALUES (6, 'Hungary');
INSERT INTO public.country (id, name) VALUES (7, 'Greece');
INSERT INTO public.country (id, name) VALUES (8, 'Poland');
INSERT INTO public.country (id, name) VALUES (9, 'Japan');
INSERT INTO public.country (id, name) VALUES (10, 'Russia');
INSERT INTO public.country (id, name) VALUES (11, 'Brazil');
INSERT INTO public.country (id, name) VALUES (12, 'Sweden');
INSERT INTO public.country (id, name) VALUES (13, 'Belgium');
INSERT INTO public.country (id, name) VALUES (14, 'Madagascar');
INSERT INTO public.country (id, name) VALUES (15, 'Italy');
INSERT INTO public.country (id, name) VALUES (16, 'Singapore');
INSERT INTO public.country (id, name) VALUES (17, 'United Kingdom');

```

```

INSERT INTO public.country (id, name) VALUES (18, 'Germany');
INSERT INTO public.country (id, name) VALUES (19, 'Ethiopia');
INSERT INTO public.country (id, name) VALUES (20, 'Tunisia');
INSERT INTO public.country (id, name) VALUES (21, 'Argentina');
INSERT INTO public.country (id, name) VALUES (22, 'Iceland');
INSERT INTO public.country (id, name) VALUES (23, 'Brunei');
INSERT INTO public.country (id, name) VALUES (24, 'Portugal');
INSERT INTO public.country (id, name) VALUES (25, 'Thailand');

-- City

INSERT INTO public.city (id, country_id, name) VALUES (1, 1, 'Monaco');
INSERT INTO public.city (id, country_id, name) VALUES (2, 2, 'Dublin');
INSERT INTO public.city (id, country_id, name) VALUES (3, 3, 'Paris');
INSERT INTO public.city (id, country_id, name) VALUES (4, 4, 'Zagreb');
INSERT INTO public.city (id, country_id, name) VALUES (5, 5,
'Helsinki');
INSERT INTO public.city (id, country_id, name) VALUES (6, 6,
'Budapest');
INSERT INTO public.city (id, country_id, name) VALUES (7, 7, 'Athens');
INSERT INTO public.city (id, country_id, name) VALUES (8, 8, 'Warsaw');
INSERT INTO public.city (id, country_id, name) VALUES (9, 9, 'Tokyo');
INSERT INTO public.city (id, country_id, name) VALUES (10, 10,
'Moscow');
INSERT INTO public.city (id, country_id, name) VALUES (11, 11,
'Brasilia');
INSERT INTO public.city (id, country_id, name) VALUES (12, 12,
'Stockholm');
INSERT INTO public.city (id, country_id, name) VALUES (13, 13,
'Brussels');
INSERT INTO public.city (id, country_id, name) VALUES (14, 14,
'Antananarivo');
INSERT INTO public.city (id, country_id, name) VALUES (15, 15, 'Rome');
INSERT INTO public.city (id, country_id, name) VALUES (16, 16,
'Singapore');
INSERT INTO public.city (id, country_id, name) VALUES (17, 17,
'London');
INSERT INTO public.city (id, country_id, name) VALUES (18, 18,
'Berlin');
INSERT INTO public.city (id, country_id, name) VALUES (19, 19, 'Adis
Abeba');
INSERT INTO public.city (id, country_id, name) VALUES (20, 20,
'Tunes');
INSERT INTO public.city (id, country_id, name) VALUES (21, 21, 'Buenos
Aires');
INSERT INTO public.city (id, country_id, name) VALUES (22, 22,
'Reykjavik');
INSERT INTO public.city (id, country_id, name) VALUES (23, 23, 'Bandar
Seri');
INSERT INTO public.city (id, country_id, name) VALUES (24, 24,
'Lisbon');

```

```
INSERT INTO public.city (id, country_id, name) VALUES (25, 25,
'Bangcock');

-- Location

INSERT INTO public.location (id, city_id, address) VALUES (1, 1, 'P.O.
Box 198, 5812 Pellentesque Road');
INSERT INTO public.location (id, city_id, address) VALUES (2, 2,
'200-7740 Cursus. St. ');
INSERT INTO public.location (id, city_id, address) VALUES (3, 3, '8243
Adipiscing, Ave');
INSERT INTO public.location (id, city_id, address) VALUES (4, 4,
'755-1989 Urna Ave');
INSERT INTO public.location (id, city_id, address) VALUES (5, 5, '4418
Id Rd. ');
INSERT INTO public.location (id, city_id, address) VALUES (6, 6, 'P.O.
Box 622, 4585 Enim Road');
INSERT INTO public.location (id, city_id, address) VALUES (7, 7, 'P.O.
Box 271, 4313 Vulputate, Ave');
INSERT INTO public.location (id, city_id, address) VALUES (8, 8,
'986-3772 Orci. St. ');
INSERT INTO public.location (id, city_id, address) VALUES (9, 9, 'P.O.
Box 435, 1224 Rhoncus. St. ');
INSERT INTO public.location (id, city_id, address) VALUES (10, 10,
'5821 Eleifend St. ');
INSERT INTO public.location (id, city_id, address) VALUES (11, 11, 'Ap
#985-4146 Torquent Street');
INSERT INTO public.location (id, city_id, address) VALUES (12, 12,
'4914 Ac Av. ');
INSERT INTO public.location (id, city_id, address) VALUES (13, 13,
'7161 Natoque Rd. ');
INSERT INTO public.location (id, city_id, address) VALUES (14, 14,
'279-3600 Sociis Avenue');
INSERT INTO public.location (id, city_id, address) VALUES (15, 15, '737
Ut Avenue');
INSERT INTO public.location (id, city_id, address) VALUES (16, 16,
'882-5682 Hendrerit St. ');
INSERT INTO public.location (id, city_id, address) VALUES (17, 17,
'8079 Nec, Avenue');
INSERT INTO public.location (id, city_id, address) VALUES (18, 18,
'757-4827 Vulputate, Rd. ');
INSERT INTO public.location (id, city_id, address) VALUES (19, 19,
'795-4148 Arcu. Rd. ');
INSERT INTO public.location (id, city_id, address) VALUES (20, 20,
'7158 Sodales Avenue');
INSERT INTO public.location (id, city_id, address) VALUES (21, 21,
'9173 Non Rd. ');
INSERT INTO public.location (id, city_id, address) VALUES (22, 22,
'2935 Imperdiet Street');
INSERT INTO public.location (id, city_id, address) VALUES (23, 23, 'Ap
#325-3349 Gravida St. ');
```

```
INSERT INTO public.location (id, city_id, address) VALUES (24, 24,
'821-9437 A Ave');
INSERT INTO public.location (id, city_id, address) VALUES (25, 25, 'Ap
#367-7802 Pede. St.');
```

-- User

```
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (4, 'Romero', 'malesuada.ut@enimnonnisi.org', 'Brent',
'adipiscing elit. Aliquam auctor, velit eget laoreet posuere, enim nisl
elementum purus, accumsan interdum libero', NULL, 'HZZ83KYX0VR', '(09)
929 462 326', '2017-04-03 11:49:24.000000', 4, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (5, 'Becker', 'nulla@enimdiamvel.co.uk', 'Teagan', 'lectus
rutrum urna, nec luctus felis purus ac tellus. Suspendisse sed dolor.
Fusce mi lorem,', NULL, 'KFD08MQZ8YE', '(06) 301 746 284', '2017-05-21
04:29:35.000000', 12, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (10, 'Bowers', 'auctor.velit.eget@risus.ca', 'Laith', 'ultrices
posuere cubilia Curae; Donec tincidunt. Donec vitae erat vel pede
blandit congue. In scelerisque', NULL, 'JTU77JS00XU', '(03) 874 515
612', '2017-04-02 20:09:50.000000', 16, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (11, 'Townsend', 'at.libero@est.org', 'Brenda', 'Donec tempus,
lorem fringilla ornare placerat, orci lacus vestibulum lorem, sit amet
ultricies sem magna', NULL, 'NRM810WS20V', '(08) 147 274 376',
'2017-04-04 17:28:39.000000', 13, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (12, 'Tyler', 'Cras@ametrismus.net', 'Adrian', 'purus. Nullam
scelerisque neque sed sem egestas blandit. Nam nulla magna, malesuada
vel, convallis in,', NULL, 'DJI32DGL7PN', '(08) 066 946 130',
'2017-05-15 18:48:25.000000', 12, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (13, 'Willis', 'enim.condimentum@Nullamutnisi.net', 'Daniel',
'vitae semper egestas, urna justo faucibus lectus, a sollicitudin orci
sem eget massa. Suspendisse eleifend.', NULL, 'UDL44PJX3YG', '(03) 365
593 569', '2017-07-23 04:30:34.000000', 18, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (14, 'Palmer', 'consectetuer.adipiscing.elit@utsem.com',
'Lenore', 'mi pede, nonummy ut, molestie in, tempus eu, ligula. Aenean
euismod mauris eu elit. Nulla', NULL, 'QBC46HME1QM', '(07) 041 222
487', '2017-02-15 14:58:55.000000', 4, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
```

```
VALUES (15, 'Meyer', 'egestas@primisinfauibus.net', 'Adena', 'at,
nisi. Cum sociis natoque penatibus et magnis dis parturient montes,
nascetur ridiculus mus. Proin', NULL, 'TGJ32CBB3WW', '(01) 606 570
428', '2017-03-05 15:14:38.000000', 6, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (16, 'Christian', 'mauris.a.nunc@sitametmetus.net', 'Angela',
'felis purus ac tellus. Suspendisse sed dolor. Fusce mi lorem, vehicula
et, rutrum eu, ultrices', NULL, 'GLW57ESV1S0', '(02) 875 964 716',
'2017-04-05 22:21:47.000000', 22, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (20, 'Hardy', 'molestie.pharetra@inaliquet.edu', 'Brian', 'ut
quam vel sapien imperdiet ornare. In faucibus. Morbi vehicula.
Pellentesque tincidunt tempus risus. Donec', NULL, 'IMG27BBA1IR', '(07)
121 967 929', '2017-06-07 20:47:04.000000', 22, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (22, 'Gilliam', 'aliquam.iaculis@sitamet.net', 'Danielle',
'libero. Proin mi. Aliquam gravida mauris ut mi. Duis risus odio,
auctor vitae, aliquet nec,', NULL, 'BKR31SCG6QZ', '(08) 653 083 528',
'2017-02-11 01:11:30.000000', 23, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (25, 'Wise', 'ipsum.porta@utnullaCras.co.uk', 'Eleanor', 'odio
tristique pharetra. Quisque ac libero nec ligula consectetur rhoncus.
Nullam velit dui, semper et,', NULL, 'EGV61HMX2RW', '(01) 075 231 883',
'2017-05-29 07:23:03.000000', 2, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (1, 'Burton', 'orci@mauris.edu', 'Kylan', 'turpis non enim.
Mauris quis turpis vitae purus gravida sagittis. Duis gravida. Praesent
eu nulla', NULL, 'RXZ31ALQ6DT', '177 871 612', '2017-04-13
14:28:44.000000', 13, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (2, 'Dyer', 'enim.commodo@penatibusetmagnis.ca', 'Hamish',
'congue turpis. In condimentum. Donec at arcu. Vestibulum ante ipsum
primis in faucibus orci luctus', NULL, 'UYE06KUX3NU', '(07) 365 867
245', '2017-07-02 06:16:54.000000', 16, 'Dyer.jpg');
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (3, 'Jennings', 'vestibulum.nec.euismod@idenimCurabitur.co.uk',
'Joy', 'diam luctus lobortis. Class aptent taciti sociosqu ad litora
torquent per conubia nostra, per inceptos', NULL, 'IDS86KLR5ZH', '298
864 407', '2017-07-27 20:08:29.000000', 8, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (6, 'Ramos', 'Phasellus.nulla.Integer@loremac.org', 'Valentine',
'amet metus. Aliquam erat volutpat. Nulla facilisis. Suspendisse
commodo tincidunt nibh. Phasellus nulla. Integer vulputate,', NULL,
```



```
'YTU61DVX1GM', '(04) 930 300 923', '2017-04-12 20:44:14.000000', 22,
NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (7, 'Davis', 'Duis.dignissim.tempor@nislelementum.ca', 'Ruby',
'massa. Quisque porttitor eros nec tellus. Nunc lectus pede, ultrices
a, auctor non, feugiat nec,', NULL, 'WAF42UBV8Z0', '260 636 980',
'2017-04-26 02:54:49.000000', 11, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (8, 'Kinney', 'Mauris@etrutrum.eu.net', 'Austin', 'mollis vitae,
posuere at, velit. Cras lorem lorem, luctus ut, pellentesque eget,
dictum placerat, augue.', NULL, 'DBV77CYZ5KU', '120 624 980',
'2017-05-31 10:25:24.000000', 1, 'Kinney.jpg');
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (9, 'Booker', 'id.mollis.nec@ligulaeu.net', 'Emma', 'magnis dis
parturient montes, nascetur ridiculus mus. Proin vel nisl. Quisque
fringilla euismod enim. Etiam', NULL, 'TVI84PMT0ER', '190 636 950',
'2017-05-24 06:20:03.000000', 9, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (17, 'Walter', 'eu.tellus@dui.net', 'Troy', 'massa. Mauris
vestibulum, neque sed dictum eleifend, nunc risus varius orci, in
consequat enim diam', NULL, 'KER37IWE0EZ', '357 734 185', '2017-06-07
03:15:15.000000', 24, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (18, 'Cleveland', 'lorem.fringilla@sollicitudin.co.uk',
'September', 'lobortis risus. In mi pede, nonummy ut, molestie in,
tempus eu, ligula. Aenean euismod mauris', NULL, 'SMA91SZQ5XG', '291
046 712', '2017-03-19 03:16:00.000000', 3, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (19, 'Hobbs', 'a.magna.Lorem@loremtristiquealiquet.net',
'Francis', 'Vivamus non lorem vitae odio sagittis semper. Nam tempor
diam dictum sapien. Aenean massa. Integer', NULL, 'WMK09CMM7AC', '(01)
935 777 211', '2017-05-25 17:25:40.000000', 1, 'Hobbs.png');
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (21, 'Elliott', 'sem.ut@libero.org', 'Craig', 'rutrum eu,
ultrices sit amet, risus. Donec nibh enim, gravida sit amet, dapibus
id, blandit', NULL, 'MLC88ATX60B', '494 073 167', '2017-02-23
04:44:33.000000', 2, NULL);
INSERT INTO public."user" (id, username, email, name, short_bio,
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (23, 'Fox', 'litora.torquent.per@nislNullaeu.net', 'Dale',
'aptent taciti sociosqu ad litora torquent per conubia nostra, per
inceptos hymenaeos. Mauris ut quam', NULL, 'WVT56BDS6TL', '(01) 171 574
614', '2017-03-15 23:22:40.000000', 7, 'Fox.jpg');
INSERT INTO public."user" (id, username, email, name, short_bio,
```

```
full_bio, hashed_pass, phone, register_date, location_id, profile_pic)
VALUES (24, 'Gardner', 'risus@mus.edu', 'Rogan', 'felis. Donec tempor,
est ac mattis semper, dui lectus rutrum urna, nec luctus felis purus',
NULL, 'NIG86PVG9XF', '430 826 295', '2017-04-30 00:31:32.000000', 25,
NULL);

-- Product

INSERT INTO public.product (id, TYPE, name, description) VALUES (1,
'{Sports Souvenirs,Collectibles}', 'mauris ipsum porta elit, a', 'Fusce
aliquam, enim nec tempus scelerisque, lorem ipsum sodales purus, in
molestie tortor nibh sit amet orci. Ut sagittis lobortis mauris.
Suspendisse aliquet molestie tellus. Aenean egestas hendrerit neque. In
ornare sagittis felis. Donec tempor,');
INSERT INTO public.product (id, TYPE, name, description) VALUES (2,
'{Health and Beauty,Toys and Hobbies}', 'ipsum cursus vestibulum.
Mauris magna.', 'id, erat. Etiam vestibulum massa rutrum magna.');
```

```
INSERT INTO public.product (id, TYPE, name, description) VALUES (3,
'{Books,Toys and Hobbies}', 'orci. Donec nibh. Quisque nonummy', 'felis
purus ac tellus. Suspendisse sed dolor. Fusce mi lorem, vehicula et,
rutrum eu, ultrices sit amet, risus. Donec nibh enim, gravida sit amet,
dapibus id, blandit at, nisi. Cum sociis natoque penatibus et magnis
dis parturient montes, nascetur ridiculus mus. Proin vel nisl. Quisque
fringilla');
```

```
INSERT INTO public.product (id, TYPE, name, description) VALUES (4,
'{Books}', 'condimentum eget, volutpat ornare, facilisis', 'mauris.
Suspendisse aliquet molestie tellus. Aenean egestas');
```

```
INSERT INTO public.product (id, TYPE, name, description) VALUES (5,
'{Cars and Vehicles}', 'sed, sapien. Nunc pulvinar arcu', 'ut, molestie
in, tempus eu, ligula. Aenean euismod mauris eu elit. Nulla facilisi.
Sed neque. Sed eget lacus. Mauris non dui nec urna suscipit nonummy.
Fusce fermentum fermentum arcu. Vestibulum ante ipsum primis in
faucibus orci luctus et ultrices posuere cubilia Curae; Phasellus
ornare. Fusce mollis. Duis sit amet diam');
```

```
INSERT INTO public.product (id, TYPE, name, description) VALUES (6,
'{Health and Beauty,Cars and Vehicles}', 'Donec est mauris, rhoncus
id,', 'lorem,');
```

```
INSERT INTO public.product (id, TYPE, name, description) VALUES (7,
'{Books}', 'ridiculus mus. Proin vel arcu', 'lectus ante dictum mi, ac
mattis velit justo nec ante. Maecenas mi felis, adipiscing fringilla,
porttitor vulputate, posuere vulputate, lacus. Cras interdum. Nunc
sollicitudin commodo ipsum. Suspendisse non leo. Vivamus nibh dolor,
nonummy ac, feugiat');
```

```
INSERT INTO public.product (id, TYPE, name, description) VALUES (8,
'{Books}', 'scelerisque mollis. Phasellus libero mauris,', 'commodo at,
libero. Morbi accumsan laoreet ipsum. Curabitur consequat, lectus sit
amet luctus vulputate, nisi sem');
```

```
INSERT INTO public.product (id, TYPE, name, description) VALUES (9,
'{Sexual Toys}', 'Vestibulum ante ipsum primis in', 'nec ligula');
```

```
INSERT INTO public.product (id, TYPE, name, description) VALUES (10,
'{Home and Garden}', 'amet lorem semper auctor. Mauris', 'ligula
```



```

tortor, dictum eu, placerat eget, venenatis a, magna. Lorem ipsum dolor
sit amet, consectetur adipiscing elit. Etiam laoreet, libero et');
INSERT INTO public.product (id, TYPE, name, description) VALUES (11,
'{Sexual Toys,Collectibles}', 'eu, eleifend nec, malesuada ut,', 'eget,
ipsum. Donec sollicitudin adipiscing ligula. Aenean gravida nunc sed
pede. Cum sociis natoque penatibus et magnis dis parturient montes,
nascetur ridiculus mus. Proin vel arcu eu odio tristique pharetra.');
```

```

INSERT INTO public.product (id, TYPE, name, description) VALUES (12,
'{Electronics and Computers,Dolls and Bears}', 'metus. In nec orci.
Donec', 'lacus. Cras interdum. Nunc sollicitudin commodo ipsum.
Suspendisse non leo. Vivamus nibh dolor,');
```

```

INSERT INTO public.product (id, TYPE, name, description) VALUES (13,
'{Movies and DVDs,Jewelry}', 'at augue id ante dictum', 'Cum sociis
natoque penatibus et magnis dis');
```

```

INSERT INTO public.product (id, TYPE, name, description) VALUES (14,
'{Books}', 'dis parturient montes, nascetur ridiculus', 'Nunc mauris
elit, dictum eu, eleifend nec, malesuada ut, sem. Nulla interdum.
Curabitur dictum. Phasellus in felis. Nulla tempor augue ac ipsum.
Phasellus vitae mauris sit amet lorem semper auctor. Mauris vel turpis.
Aliquam adipiscing lobortis risus. In mi pede, nonummy ut, molestie in,
tempus eu, ligula. Aenean euismod');
```

```

INSERT INTO public.product (id, TYPE, name, description) VALUES (15,
'{Video Games}', 'nec ligula consectetur rhoncus. Nullam', 'convallis
erat, eget tincidunt dui augue eu tellus. Phasellus elit pede,
malesuada vel, venenatis vel, faucibus id, libero. Donec consectetur
mauris id sapien. Cras dolor');
```

```

INSERT INTO public.product (id, TYPE, name, description) VALUES (16,
'{Books}', 'luctus sit amet, faucibus ut,', 'eu erat semper rutrum.
Fusce dolor quam, elementum at, egestas a, scelerisque sed, sapien.
Nunc pulvinar arcu et pede. Nunc sed orci lobortis augue scelerisque
mollis. Phasellus libero mauris, aliquam eu,');
```

```

INSERT INTO public.product (id, TYPE, name, description) VALUES (17,
'{Sports Souvenirs,Books}', 'Suspendisse ac metus vitae velit', 'purus.
Duis elementum, dui quis accumsan convallis, ante lectus convallis est,
vitae sodales nisi magna sed dui. Fusce aliquam, enim nec tempus
scelerisque, lorem ipsum sodales purus, in molestie tortor nibh sit
amet orci. Ut sagittis lobortis mauris. Suspendisse aliquet molestie
tellus. Aenean egestas');
```

```

INSERT INTO public.product (id, TYPE, name, description) VALUES (18,
'{Dolls and Bears}', 'nisl. Nulla eu neque pellentesque', 'interdum
ligula eu enim. Etiam imperdiet dictum magna. Ut');
```

```

INSERT INTO public.product (id, TYPE, name, description) VALUES (19,
'{Home and Garden}', 'ornare sagittis felis. Donec tempor,', 'tellus
sem mollis dui, in sodales elit erat vitae risus. Duis a mi fringilla
mi lacinia mattis. Integer eu lacus. Quisque imperdiet, erat nonummy
ultrices ornare, elit elit fermentum risus, at fringilla purus mauris
a');
```

```

INSERT INTO public.product (id, TYPE, name, description) VALUES (20,
'{Books}', 'feugiat nec, diam. Duis mi', 'Integer vulputate, risus a
ultrices adipiscing, enim mi tempor lorem, eget mollis lectus pede et
risus. Quisque libero lacus, varius et, euismod et, commodo at, libero.
```

```
Morbi accumsan laoreet ipsum. Curabitur consequat, lectus sit amet  
luctus vulputate, nisi sem semper');
```

```
-- Image
```

```
INSERT INTO public.image (id, filename, product_id) VALUES (1, '1.bmp',  
6);  
INSERT INTO public.image (id, filename, product_id) VALUES (2, '2.png',  
12);  
INSERT INTO public.image (id, filename, product_id) VALUES (3, '3.png',  
17);  
INSERT INTO public.image (id, filename, product_id) VALUES (4, '4.png',  
3);  
INSERT INTO public.image (id, filename, product_id) VALUES (5, '5.png',  
18);  
INSERT INTO public.image (id, filename, product_id) VALUES (6, '6.png',  
5);  
INSERT INTO public.image (id, filename, product_id) VALUES (7, '7.bmp',  
1);  
INSERT INTO public.image (id, filename, product_id) VALUES (8, '8.png',  
16);  
INSERT INTO public.image (id, filename, product_id) VALUES (9, '9.bmp',  
7);  
INSERT INTO public.image (id, filename, product_id) VALUES (10,  
'10.png', 13);  
INSERT INTO public.image (id, filename, product_id) VALUES (11,  
'11.jpg', 17);  
INSERT INTO public.image (id, filename, product_id) VALUES (12,  
'12.png', 19);  
INSERT INTO public.image (id, filename, product_id) VALUES (13,  
'13.jpg', 17);  
INSERT INTO public.image (id, filename, product_id) VALUES (14,  
'14.bmp', 9);  
INSERT INTO public.image (id, filename, product_id) VALUES (15,  
'15.bmp', 12);  
INSERT INTO public.image (id, filename, product_id) VALUES (16,  
'16.png', 2);  
INSERT INTO public.image (id, filename, product_id) VALUES (17,  
'17.bmp', 16);  
INSERT INTO public.image (id, filename, product_id) VALUES (18,  
'18.jpg', 1);  
INSERT INTO public.image (id, filename, product_id) VALUES (19,  
'19.jpg', 16);  
INSERT INTO public.image (id, filename, product_id) VALUES (20,  
'20.jpg', 15);  
INSERT INTO public.image (id, filename, product_id) VALUES (21,  
'21.png', 17);  
INSERT INTO public.image (id, filename, product_id) VALUES (22,  
'22.bmp', 11);  
INSERT INTO public.image (id, filename, product_id) VALUES (23,  
'23.png', 1);
```

```
INSERT INTO public.image (id, filename, product_id) VALUES (24,
'24.png', 20);
INSERT INTO public.image (id, filename, product_id) VALUES (25,
'25.png', 3);
INSERT INTO public.image (id, filename, product_id) VALUES (26,
'26.bmp', 7);
INSERT INTO public.image (id, filename, product_id) VALUES (27,
'27.png', 11);
INSERT INTO public.image (id, filename, product_id) VALUES (28,
'28.jpg', 6);
INSERT INTO public.image (id, filename, product_id) VALUES (29,
'29.png', 9);
INSERT INTO public.image (id, filename, product_id) VALUES (30,
'30.jpg', 4);
INSERT INTO public.image (id, filename, product_id) VALUES (31,
'31.jpg', 13);
INSERT INTO public.image (id, filename, product_id) VALUES (32,
'32.png', 14);
INSERT INTO public.image (id, filename, product_id) VALUES (33,
'33.png', 6);
INSERT INTO public.image (id, filename, product_id) VALUES (34,
'34.bmp', 10);
INSERT INTO public.image (id, filename, product_id) VALUES (35,
'35.png', 9);
INSERT INTO public.image (id, filename, product_id) VALUES (36,
'36.bmp', 15);
INSERT INTO public.image (id, filename, product_id) VALUES (37,
'37.bmp', 14);
INSERT INTO public.image (id, filename, product_id) VALUES (38,
'38.bmp', 12);
INSERT INTO public.image (id, filename, product_id) VALUES (39,
'39.png', 9);
INSERT INTO public.image (id, filename, product_id) VALUES (40,
'40.bmp', 17);

-- User_report

INSERT INTO public.user_report (id, DATE, message, user_id) VALUES (1,
'2017-03-29 08:25:01.000000', 'pede. Praesent eu dui. Cum sociis
natoque penatibus et magnis dis', 3);
INSERT INTO public.user_report (id, DATE, message, user_id) VALUES (2,
'2017-03-14 01:06:27.000000', 'auctor quis, tristique ac, eleifend
vitae, erat. Vivamus', 14);
INSERT INTO public.user_report (id, DATE, message, user_id) VALUES (3,
'2017-03-14 20:22:15.000000', 'placerat, augue. Sed molestie. Sed id
risus quis diam luctus lobortis. Class aptent taciti sociosqu', 6);
INSERT INTO public.user_report (id, DATE, message, user_id) VALUES (4,
'2017-03-22 20:11:23.000000', 'Proin dolor. Nulla semper tellus id nunc
interdum feugiat.', 8);
INSERT INTO public.user_report (id, DATE, message, user_id) VALUES (5,
'2017-03-24 02:33:35.000000', 'ultrices. Vivamus rhoncus. Donec est.
```

```
Nunc ullamcorper, velit', 18);
INSERT INTO public.user_report (id, DATE, message, user_id) VALUES (6,
'2017-03-02 12:33:50.000000', 'Nunc sollicitudin commodo ipsum.', 25);
INSERT INTO public.user_report (id, DATE, message, user_id) VALUES (7,
'2017-03-10 19:51:29.000000', 'accumsan convallis, ante lectus
convallis est, vitae sodales nisi magna sed dui. Fusce aliquam, enim
nec tempus scelerisque, lorem ipsum', 7);
INSERT INTO public.user_report (id, DATE, message, user_id) VALUES (8,
'2017-03-16 09:16:30.000000', 'ornare. Fusce mollis. Duis sit', 16);
INSERT INTO public.user_report (id, DATE, message, user_id) VALUES (9,
'2017-03-03 03:46:04.000000', 'et nunc. Quisque ornare tortor at risus.
Nunc ac sem', 21);
INSERT INTO public.user_report (id, DATE, message, user_id) VALUES (10,
'2017-03-10 20:55:15.000000', 'risus. In Lorem ipsun', 20);

-- Auction

INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (1, 28.59, 53.6,
'2017-03-09 07:06:36.000000', '2017-03-09 13:44:55.000000', 'Sealed
Bid', 6, 1, '2017-03-04 09:26:31.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (2, 75.37, 192.54,
'2017-03-06 04:57:27.000000', '2017-03-12 22:39:07.000000', 'Dutch',
21, 2, '2017-03-04 10:25:56.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (3, 64.76, 138.88,
'2017-03-10 05:11:33.000000', '2017-03-27 20:30:53.000000', 'Default',
11, 3, '2017-03-05 19:10:22.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (4, 29.72, 112.56,
'2017-03-05 08:29:15.000000', '2017-03-20 16:58:02.000000', 'Dutch',
10, 4, '2017-03-04 18:37:46.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (5, 66.79, 78.34,
'2017-03-12 00:11:42.000000', '2017-03-25 07:16:33.000000', 'Default',
16, 5, '2017-03-08 15:14:38.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (7, 63.93, 63.93,
'2017-03-05 02:22:24.000000', '2017-03-29 07:54:38.000000', 'Dutch',
10, 7, '2017-03-04 20:18:16.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (8, 41.17, 41.17,
'2017-03-04 10:01:44.000000', '2017-03-14 13:57:20.000000', 'Dutch',
16, 8, '2017-03-03 08:03:13.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (9, 83.3, 144.78,
'2017-03-11 13:29:25.000000', '2017-03-28 05:38:04.000000', 'Dutch', 5,
9, '2017-03-02 08:34:12.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (10, 50.05, 98,
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'2017-03-08 21:08:10.000000', '2017-03-26 09:33:15.000000', 'Default',
1, 10, '2017-03-06 00:47:22.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (11, 16.38, 79.41,
'2017-03-11 00:58:46.000000', '2017-03-16 21:15:26.000000', 'Sealed
Bid', 1, 11, '2017-03-05 06:45:27.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (12, 79.97, 79.97,
'2017-03-11 13:13:28.000000', '2017-03-15 22:34:09.000000', 'Sealed
Bid', 22, 12, '2017-03-05 20:07:21.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (13, 13.52, 150.71,
'2017-03-12 15:30:06.000000', '2017-03-19 18:24:04.000000', 'Sealed
Bid', 19, 13, '2017-03-02 12:52:11.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (14, 55.61, 55.61,
'2017-03-09 02:43:40.000000', '2017-03-24 04:10:25.000000', 'Dutch',
10, 14, '2017-03-06 22:22:49.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (15, 96.71, 174,
'2017-03-11 09:51:51.000000', '2017-03-14 08:18:22.000000', 'Dutch',
15, 15, '2017-03-05 04:40:38.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (16, 15.54, 15.54,
'2017-03-11 14:54:28.000000', '2017-03-23 01:47:28.000000', 'Dutch', 7,
16, '2017-03-05 21:24:40.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (17, 38.99, 139.35,
'2017-03-12 15:17:36.000000', '2017-03-27 21:11:43.000000', 'Sealed
Bid', 4, 17, '2017-03-04 22:09:04.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (18, 11.47, 77.64,
'2017-03-14 11:22:00.000000', '2017-03-19 13:18:47.000000', 'Sealed
Bid', 17, 18, '2017-03-07 09:20:35.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (19, 62.08, 112.56,
'2017-03-12 08:28:26.000000', '2017-03-17 19:12:41.000000', 'Sealed
Bid', 17, 19, '2017-03-02 13:23:12.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (20, 92.2, 180.65,
'2017-03-06 07:29:37.000000', '2017-03-23 15:05:22.000000', 'Sealed
Bid', 14, 20, '2017-03-02 06:17:09.000000');
INSERT INTO public.auction (id, start_bid, curr_bid, start_date,
end_date, TYPE, user_id, product_id, DATE) VALUES (6, 43.24, 76.05,
'2017-03-05 21:18:09.000000', '2017-03-22 04:30:09.000000', 'Dutch',
19, 6, '2017-03-03 10:17:54.000000');

-- Auction_report

INSERT INTO public.auction_report (id, DATE, message, auction_id)
VALUES (2, '2017-03-06 13:22:01.000000', 'facilisis lorem tristique

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aliquet. Phasellus fermentum convallis ligula. Donec luctus aliquet odio. Etiam ligula tortor, dictum eu, placerat eget,', 8);
INSERT INTO public.auction_report (id, DATE, message, auction_id)
VALUES (3, '2017-03-22 04:40:20.000000', 'ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Phasellus ornare. Fusce mollis. Duis sit amet', 10);
INSERT INTO public.auction_report (id, DATE, message, auction_id)
VALUES (4, '2017-03-16 15:37:14.000000', 'enim, sit amet ornare lectus', 17);
INSERT INTO public.auction_report (id, DATE, message, auction_id)
VALUES (5, '2017-03-07 16:49:21.000000', 'ligula. Aenean gravida nunc sed pede. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur', 17);
INSERT INTO public.auction_report (id, DATE, message, auction_id)
VALUES (6, '2017-03-16 21:49:32.000000', 'felis, adipiscing fringilla, porttitor vulputate, posuere vulputate, lacus. Cras interdum. Nunc sollicitudin commodo ipsum. Suspendisse non', 8);
INSERT INTO public.auction_report (id, DATE, message, auction_id)
VALUES (8, '2017-03-09 01:29:16.000000', 'Integer vulputate, risus a ultricies adipiscing, enim mi tempor lorem, eget mollis lectus', 18);
INSERT INTO public.auction_report (id, DATE, message, auction_id)
VALUES (9, '2017-03-04 05:56:49.000000', 'Sed pharetra, felis eget varius ultrices, mauris', 6);
INSERT INTO public.auction_report (id, DATE, message, auction_id)
VALUES (10, '2017-03-18 18:30:51.000000', 'vel, faucibus id, libero. Donec consectetur mauris id sapien. Cras dolor dolor, tempus non, lacinia at, iaculis quis,', 7);
INSERT INTO public.auction_report (id, DATE, message, auction_id)
VALUES (1, '2017-03-21 09:23:19.000000', 'magna tellus faucibus leo, in lobortis tellus justo sit amet nulla. Donec non justo.', 5);
INSERT INTO public.auction_report (id, DATE, message, auction_id)
VALUES (7, '2017-03-22 01:00:25.000000', 'ante bibendum ullamcorper. Duis cursus, diam at pretium aliquet, metus urna convallis erat, eget tincidunt dui augue eu tellus. Phasellus', 6);
```

-- Follow

```
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (9,16,'2017-03-07 03:43:22');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (20,19,'2017-03-09 12:32:37');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (15,1,'2017-03-19 05:07:31');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (8,19,'2017-03-16 12:53:44');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (3,20,'2017-03-05 22:59:39');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (9,13,'2017-03-22 11:29:06');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (18,14,'2017-03-04 23:07:22');
```



```
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (14,8,'2017-03-29 22:24:44');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (10,1,'2017-03-19 07:58:24');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (11,12,'2017-03-13 23:59:42');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (9,7,'2017-03-06 13:57:16');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (18,11,'2017-03-11 00:48:13');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (6,13,'2017-03-25 06:38:47');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (19,5,'2017-03-02 14:48:43');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (2,19,'2017-03-18 11:46:05');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (13,6,'2017-03-16 16:42:33');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (2,4,'2017-03-24 19:06:27');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (2,11,'2017-03-07 06:09:44');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (14,15,'2017-03-10 03:44:55');
INSERT INTO public.follow (user_followed_id,user_following_id,DATE)
VALUES (7,15,'2017-03-12 18:35:35');
```

-- Notification

```
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (1,'Lorem ipsum dolor sit amet,
consectetuer','Answer',8,'false','2017-03-15 04:49:18');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (2,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur sed','Answer',18,'true','2017-03-03 00:42:08');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (3,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur sed tortor. Integer aliquam adipiscing
lacus.','Auction',14,'true','2017-03-11 18:00:57');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (4,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur sed tortor.','Question',12,'false','2017-03-18 10:36:06');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (5,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur sed tortor.','Auction',15,'false','2017-03-09 12:45:11');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (6,'Lorem ipsum dolor sit amet,
consectetuer','Auction',12,'true','2017-03-09 04:19:15');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (7,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur sed tortor. Integer aliquam
```

```
adipiscing','Win',20,'true','2017-03-11 16:33:33');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (8,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur sed','Question',2,'true','2017-03-18 17:41:37');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (9,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur','Answer',18,'true','2017-03-21 22:17:21');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (10,'Lorem ipsum dolor sit','Warning',11,'false','2017-03-14
13:22:11');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (11,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur sed tortor.','Auction',5,'false','2017-03-07 07:34:22');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (12,'Lorem ipsum dolor sit amet','Answer',9,'false','2017-03-07
19:03:41');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (13,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur','Auction',13,'false','2017-03-15 08:02:42');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (14,'Lorem ipsum dolor sit amet, consectetur adipiscing
elit.','Warning',18,'false','2017-03-21 17:08:04');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (15,'Lorem','Win',16,'true','2017-03-13 20:15:47');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (16,'Lorem','Win',6,'true','2017-03-11 02:26:16');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (17,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur sed tortor. Integer aliquam adipiscing
lacus.','Auction',10,'false','2017-03-14 20:28:27');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (18,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur sed','Auction',7,'true','2017-03-20 13:54:19');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (19,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur sed tortor. Integer','Answer',20,'true','2017-03-15
00:26:42');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (20,'Lorem ipsum dolor','Question',8,'false','2017-03-18
08:26:55');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (21,'Lorem','Warning',9,'true','2017-03-09 21:50:19');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (22,'Lorem ipsum dolor sit amet,
consectetur','Auction',11,'false','2017-03-12 09:16:14');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (23,'Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Curabitur sed tortor. Integer aliquam
adipiscing','Auction',17,'false','2017-03-06 18:27:25');
INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (24,'Lorem ipsum','Win',6,'false','2017-03-08 17:20:20');
```



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INSERT INTO public.notification (id,message,TYPE,user_id,is_new,DATE)
VALUES (25,'Lorem ipsum dolor sit','Question',2,'false','2017-03-14
07:39:03');

-- Question

INSERT INTO public.question (id, DATE, message, title, user_id,
auction_id) VALUES (8, '2017-03-20 01:10:50.000000', 'imperdiet non,
vestibulum nec, euismod in, dolor. Fusce feugiat. Lorem ipsum dolor sit
amet, consectetur adipiscing elit. Aliquam', 'et, commodo at, libero.
Morbi accumsan', 4, 14);
INSERT INTO public.question (id, DATE, message, title, user_id,
auction_id) VALUES (13, '2017-03-04 21:43:18.000000', 'at, velit. Cras
lorem lorem,', 'varius et, euismod et, commodo at,', 16, 2);
INSERT INTO public.question (id, DATE, message, title, user_id,
auction_id) VALUES (1, '2017-03-15 07:45:48.000000', 'eu neque
pellentesque massa lobortis ultrices. Vivamus rhoncus. Donec est. Nunc
ullamcorper, velit in aliquet lobortis, nisi nibh lacinia', 'nulla at
sem molestie sodales. Mauris', 12, 19);
INSERT INTO public.question (id, DATE, message, title, user_id,
auction_id) VALUES (2, '2017-03-14 08:08:55.000000', 'cubilia Curae;
Donec tincidunt. Donec vitae erat vel pede blandit congue. In
scelerisque scelerisque dui. Suspendisse', 'mauris blandit mattis. Cras
eget nisi', 6, 6);
INSERT INTO public.question (id, DATE, message, title, user_id,
auction_id) VALUES (3, '2017-03-07 06:53:48.000000', 'amet lorem semper
auctor. Mauris vel turpis. Aliquam adipiscing lobortis risus. In mi
pede, nonummy', 'sed tortor. Integer aliquam adipiscing lacus.', 5,
17);
INSERT INTO public.question (id, DATE, message, title, user_id,
auction_id) VALUES (4, '2017-03-19 02:15:46.000000', 'mauris, rhoncus
id, mollis nec, cursus', 'augue malesuada malesuada. Integer id magna',
24, 16);
INSERT INTO public.question (id, DATE, message, title, user_id,
auction_id) VALUES (12, '2017-03-10 22:31:23.000000', 'lacus vestibulum
lorem, sit amet ultricies sem magna nec quam. Curabitur vel lectus. Cum
sociis natoque penatibus', 'semper cursus. Integer mollis. Integer
tincidunt', 3, 10);
INSERT INTO public.question (id, DATE, message, title, user_id,
auction_id) VALUES (14, '2017-03-20 18:57:33.000000', 'egetas. Fusce
aliquet magna a neque. Nullam ut nisi a odio semper', 'dui. Fusce
aliquam, enim nec tempus', 8, 17);
INSERT INTO public.question (id, DATE, message, title, user_id,
auction_id) VALUES (11, '2017-03-12 05:30:37.000000', 'Phasellus at
augue id ante dictum', 'tincidunt adipiscing. Mauris molestie pharetra
nibh.', 4, 8);
INSERT INTO public.question (id, DATE, message, title, user_id,
auction_id) VALUES (10, '2017-03-15 05:52:16.000000', 'facilisis non,
bibendum sed, est. Nunc laoreet lectus quis massa. Mauris vestibulum,
neque sed', 'Fusce mi lorem, vehicula et, rutrum', 17, 11);
INSERT INTO public.question (id, DATE, message, title, user_id,
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auction_id) VALUES (9, '2017-03-07 04:36:18.000000', 'luctus vulputate, nisi sem semper erat, in consectetur ipsum nunc id enim.', 'risus. Duis a mi fringilla mi', 9, 12);
INSERT INTO public.question (id, DATE, message, title, user_id, auction_id) VALUES (5, '2017-03-21 14:20:21.000000', 'ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Donec tincidunt.', 'quis massa. Mauris vestibulum, neque sed', 12, 14);
INSERT INTO public.question (id, DATE, message, title, user_id, auction_id) VALUES (7, '2017-03-10 15:00:31.000000', 'libero. Proin mi. Aliquam gravida mauris', 'Ut tincidunt vehicula risus. Nulla eget', 10, 15);
INSERT INTO public.question (id, DATE, message, title, user_id, auction_id) VALUES (15, '2017-03-16 12:51:05.000000', 'Aenean massa. Integer vitae nibh. Donec est mauris, rhoncus id, mollis nec, cursus a, enim. Suspendisse aliquet,', 'enim nec tempus scelerisque, lorem ipsum', 14, 19);
INSERT INTO public.question (id, DATE, message, title, user_id, auction_id) VALUES (6, '2017-03-19 14:55:34.000000', 'ac libero nec ligula consectetur rhoncus. Nullam', 'pede nec ante blandit viverra. Donec', 11, 20);

-- Question_report

INSERT INTO public.question_report (id, DATE, message, question_id) VALUES (1, '2017-03-11 01:42:50.000000', 'rhoncus. Proin nisl sem, consequat', 3);
INSERT INTO public.question_report (id, DATE, message, question_id) VALUES (2, '2017-03-08 21:39:54.000000', 'aliquet, metus urna convallis erat, eget tincidunt dui augue eu tellus. Phasellus elit', 6);
INSERT INTO public.question_report (id, DATE, message, question_id) VALUES (3, '2017-03-07 20:46:40.000000', 'egestas rhoncus. Proin nisl sem, consequat nec, mollis vitae, posuere at,', 6);
INSERT INTO public.question_report (id, DATE, message, question_id) VALUES (4, '2017-03-21 00:10:24.000000', 'a, malesuada id, erat. Etiam vestibulum', 1);
INSERT INTO public.question_report (id, DATE, message, question_id) VALUES (5, '2017-03-14 20:18:04.000000', 'ante, iaculis nec, eleifend non, dapibus', 4);
INSERT INTO public.question_report (id, DATE, message, question_id) VALUES (6, '2017-03-03 21:38:13.000000', 'risus odio, auctor vitae, aliquet nec, imperdiet nec, leo. Morbi neque tellus, imperdiet', 2);
INSERT INTO public.question_report (id, DATE, message, question_id) VALUES (7, '2017-03-30 19:12:24.000000', 'Sed eu eros. Nam consequat dolor vitae dolor. Donec fringilla. Donec feugiat metus', 15);
INSERT INTO public.question_report (id, DATE, message, question_id) VALUES (8, '2017-03-10 16:31:56.000000', 'vestibulum, neque sed dictum eleifend, nunc risus varius orci, in consequat enim diam', 3);
INSERT INTO public.question_report (id, DATE, message, question_id) VALUES (9, '2017-03-22 04:59:42.000000', 'ligula. Nullam enim. Sed nulla ante, iaculis nec,', 11);
INSERT INTO public.question_report (id, DATE, message, question_id)
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VALUES (10, '2017-03-07 11:24:56.000000', 'lacinia vitae, sodales at,
velit.', 12);

-- Answer

INSERT INTO public.answer (id, DATE, message, question_id, user_id,
auction_id) VALUES (3, '2017-03-18 17:03:59.000000', 'libero. Morbi
accumsan laoreet ipsum. Curabitur consequat, lectus sit amet luctus',
10, 1, 11);
INSERT INTO public.answer (id, DATE, message, question_id, user_id,
auction_id) VALUES (6, '2017-03-15 18:07:39.000000', 'urna suscipit
nonummy. Fusce fermentum fermentum arcu.', 2, 19, 6);
INSERT INTO public.answer (id, DATE, message, question_id, user_id,
auction_id) VALUES (7, '2017-03-20 01:25:35.000000', 'neque. Morbi quis
urna. Nunc quis', 4, 7, 16);
INSERT INTO public.answer (id, DATE, message, question_id, user_id,
auction_id) VALUES (5, '2017-03-12 23:58:34.000000', 'vitae dolor.
Donec fringilla. Donec feugiat', 7, 15, 15);
INSERT INTO public.answer (id, DATE, message, question_id, user_id,
auction_id) VALUES (1, '2017-03-21 18:10:01.000000', 'Curabitur vel
lectus. Cum sociis natoque penatibus et magnis', 8, 10, 14);
INSERT INTO public.answer (id, DATE, message, question_id, user_id,
auction_id) VALUES (4, '2017-03-11 10:42:58.000000', 'eget lacus.
Mauris non dui', 12, 1, 10);
INSERT INTO public.answer (id, DATE, message, question_id, user_id,
auction_id) VALUES (2, '2017-03-21 14:06:37.000000', 'scelerisque sed,
sapien. Nunc pulvinar arcu et pede. Nunc sed orci lobortis augue
scelerisque', 14, 4, 17);
INSERT INTO public.answer (id, DATE, message, question_id, user_id,
auction_id) VALUES (8, '2017-03-18 18:56:22.000000', 'vestibulum lorem,
sit amet ultricies sem magna nec quam. Curabitur vel lectus. Cum', 15,
17, 19);

-- Answer_report

INSERT INTO public.answer_report (id, DATE, message, answer_id) VALUES
(1, '2017-03-12 22:14:35.000000', 'malesuada malesuada. Integer id
magna et ipsum cursus vestibulum. Mauris', 2);
INSERT INTO public.answer_report (id, DATE, message, answer_id) VALUES
(2, '2017-03-11 04:57:40.000000', 'adipiscing elit. Aliquam auctor,
velit eget laoreet posuere, enim nisl', 5);
INSERT INTO public.answer_report (id, DATE, message, answer_id) VALUES (6,
'2017-03-22 03:21:14.000000', 'odio. Etiam ligula tortor, dictum eu,
placerat eget, venenatis a, magna. Lorem ipsum', 3);
INSERT INTO public.answer_report (id, DATE, message, answer_id) VALUES
(3, '2017-03-23 15:33:08.000000', 'Fusce feugiat. Lorem ipsum dolor sit
amet, consectetur adipiscing', 5);
INSERT INTO public.answer_report (id, DATE, message, answer_id) VALUES
(4, '2017-03-16 16:21:45.000000', 'nec ante blandit viverra. Donec
tempus, lorem fringilla ornare placerat, orci lacus', 8);

```

-- Watchlist

```
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (14, 14, FALSE, '2017-03-09 10:15:48.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (7, 6, FALSE, '2017-03-11 07:14:12.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (11, 4, FALSE, '2017-03-11 04:35:48.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (13, 21, TRUE, '2017-03-16 17:09:45.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (20, 6, TRUE, '2017-03-07 14:19:16.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (20, 3, FALSE, '2017-03-21 03:08:34.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (14, 12, FALSE, '2017-03-11 14:46:57.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (3, 2, TRUE, '2017-03-22 18:31:24.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (20, 19, TRUE, '2017-03-12 07:29:37.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (16, 12, FALSE, '2017-03-22 01:42:51.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (13, 8, FALSE, '2017-03-09 03:26:00.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (13, 6, FALSE, '2017-03-16 11:13:00.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (6, 4, TRUE, '2017-03-10 12:52:03.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (1, 5, FALSE, '2017-03-08 16:00:45.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (2, 2, TRUE, '2017-03-05 04:54:35.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (2, 7, FALSE, '2017-03-11 16:47:59.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (7, 19, TRUE, '2017-03-14 08:27:03.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (7, 24, FALSE, '2017-03-23 05:59:55.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (7, 25, FALSE, '2017-03-18 05:57:52.000000');
INSERT INTO public.watchlist (auction_id, user_id, notifications, DATE)
VALUES (11, 20, FALSE, '2017-03-14 05:46:51.000000');
```

-- Bid

```
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(1, 150.71, '2017-03-15 21:10:40.000000', 15, 13);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(8, 77.64, '2017-03-18 08:01:39.000000', 15, 18);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(12, 114.1, '2017-03-18 06:53:20.000000', 20, 9);
```

```

INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(14, 76.75, '2017-03-15 04:27:22.000000', 9, 10);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(21, 49.18, '2017-03-12 07:00:52.000000', 25, 10);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(22, 78.34, '2017-03-12 21:22:12.000000', 19, 5);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(23, 144.78, '2017-03-26 17:49:50.000000', 13, 9);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(15, 53.6, '2017-03-09 08:02:47.000000', 2, 1);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(13, 89, '2017-03-08 03:35:38.000000', 8, 2);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(19, 192.54, '2017-03-11 17:59:42.000000', 23, 2);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(2, 138.88, '2017-03-13 12:21:20.000000', 9, 3);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(25, 112.56, '2017-03-16 06:01:14.000000', 12, 4);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(17, 85.69, '2017-03-07 23:08:40.000000', 11, 4);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(6, 76.05, '2017-03-14 11:13:00.000000', 7, 6);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(9, 98, '2017-03-18 15:57:31.000000', 23, 10);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(10, 39.54, '2017-03-15 21:01:12.000000', 3, 11);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(24, 79.41, '2017-03-16 10:13:29.000000', 8, 11);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(16, 18.56, '2017-03-12 00:39:55.000000', 10, 11);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(3, 56.98, '2017-03-13 07:16:48.000000', 25, 13);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(4, 174, '2017-03-13 19:12:40.000000', 19, 15);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(11, 139.35, '2017-03-16 04:37:49.000000', 18, 17);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(5, 73.68, '2017-03-13 10:04:53.000000', 19, 19);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(20, 112.56, '2017-03-16 02:01:01.000000', 22, 19);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(7, 180.65, '2017-03-13 17:07:59.000000', 8, 20);
INSERT INTO public.bid (id, amount, DATE, user_id, auction_id) VALUES
(18, 153.52, '2017-03-08 15:54:48.000000', 12, 20);

-- Review

INSERT INTO public.review (id, rating, message, DATE, bid_id) VALUES
(3, 3, 'parturient montes, nascetur ridiculus mus. Proin vel nisl.
Quisque fringilla euismod enim. Etiam gravida molestie arcu. Sed',
'2017-03-14 05:41:07.000000', 19);

```

```
INSERT INTO public.review (id, rating, message, DATE, bid_id) VALUES
(4, 7, 'Ut sagittis lobortis mauris. Suspendisse aliquet molestie
tellus. Aenean egestas hendrerit neque. In ornare sagittis felis.
Donec', '2017-03-24 10:44:42.000000', 7);
INSERT INTO public.review (id, rating, message, DATE, bid_id) VALUES
(1, 8, 'Praesent eu nulla at sem molestie sodales. Mauris blandit enim
consequat purus.', '2017-03-21 16:46:09.000000', 25);
INSERT INTO public.review (id, rating, message, DATE, bid_id) VALUES
(2, 1, 'ac turpis egestas. Aliquam fringilla cursus purus. Nullam
scelerisque neque sed sem egestas blandit. Nam', '2017-03-20
13:29:19.000000', 24);
INSERT INTO public.review (id, rating, message, DATE, bid_id) VALUES
(5, 6, 'sed, facilisis vitae, orci. Phasellus dapibus quam quis diam.
Pellentesque habitant morbi tristique senectus et netus et malesuada
fames', '2017-03-20 05:21:45.000000', 20);

-- Review_report

INSERT INTO public.review_report (id, DATE, message, review_id) VALUES
(1, '2017-03-29 08:25:01.000000', 'pede. Praesent eu dui. Cum sociis
natoque penatibus et magnis dis', 3);
```

— LBAW

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