

# FlipChat Database

## 1. Updated ER

- See file: q1\_ER\_Model.pdf

## 2. Create Statements

- Schema file: q2\_statements.sql
- Output file: q2\_output.txt
- **Notes:**
  - The schema cannot capture that a transaction is triggered once a product auction is over. Additionally, the schema cannot capture that a transaction is initiated by a winning bid.
  - The schema cannot enforce that a notification is triggered by a newly-added product as long as it is in a user's favoured category.

## 3. Insert Statements (Part 1)

- Statements file: q3\_statements.sql
- Output file: q3\_output.txt

## 4. Insert Statements (Part 2)

- Statements file: q4\_statements.sql
- Output: q4\_output.txt
- **Note:** Additional INSERT statements for users, category, product and bid tables are in file q9\_statements.sql

## 5. Select Statements

- Statements file: q5\_statements.sql
- Output file: q5\_output.txt
- **Note:** Refer to the Create Statements in part 2 for a description of all the relations.

## 6. Update Statements

- Statements file: q6\_statements.sql
- Output file: q6\_output.txt

## 7. Views

- Statements file: q7\_statements.sql
- Output file: q7\_output.txt
- **Note**: The updates to these views do not work. Views containing GROUP BY are not automatically updatable in PostgreSQL 9.1. Updating the views requires an INSTEAD OF UPDATE trigger or an unconditional ON UPDATE DO INSTEAD rule.

## 8. Check Constraints

- Statements file: q8\_statements.sql
- Output file: q8\_output.txt
- **Note**: Test insert/update statements that violate the constraint can be found in output file.

## 9. Creativity Points

- See file: q9\_statements.sql
- **Note**: We populated four of our tables (users, categories, products, bids) with real world like data sets. Note that the category table only has 10 records, whereas the other 3 tables have 100 records, as per requirements. The data was generated using Mockaroo data generator (<https://www.mockaroo.com/>), which is a free service that generates large sets of random, realistic data.