

Date:

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Team Members:

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Application URL:

<http://resin.cci.drexel.edu:8080/~jw968/index>

Project Description:

Our team decided to create a simple food truck hub web application. Our application will allow food truck owners to create an account and perform simple management tasks like keeping track of sales data. Food truck owners can manage data for each food truck. Owners can view the location, sales, employee information and hours for each food truck. Our web application also supports a second type of user, the food truck consumer. Consumers can create an account and will be redirected to the consumer home page, which will be a list of all the food trucks. Food truck consumers will be able to provide feedback to food trucks via a five star rating scale and/or a comment. The entities modeled in our application are mostly focused on food trucks, as the food truck owner will be our main user type. The entities we modeled are: Consumers; Owners; Food Trucks; Ratings; Sales; Locations; Hours; Employees. See below for more information about the entities shown in the attached ER diagram.

Entity Sets, Relationship Sets, Business Rules:**1. Owners:**

- a. Owners own at least one Food Truck(Business Rule).
- b. Owners table has an ID as the primary key
- c. Owner's username is saved as an attribute called owner_id, which cannot be null.
- d. Owner has a password as an attribute which cannot be null.
- e. Owner has a name attribute which cannot be null.

2. Consumers:

- a. Consumers may rate a Food Truck. (Business Rule).
- b. Consumers have an ID as the primary key
- c. Consumer's username is saved as an attribute called consumer_id, which cannot be null.
- d. Consumer has a password as an attribute which cannot be null.
- e. Consumer has a name attribute which cannot be null.

3. Food Trucks:

- a. A food truck is owned by at least one owner(Business Rule).
- b. A food truck may be rated by a consumer(Business Rule)..
- c. A food truck has at least one Employee(Business Rule).
- d. A food truck is has at least one Location(Business Rule).
- e. Food trucks have an ID as the primary key.
- f. Name is an attribute, which cannot be null.
- g. Type is an attribute.

4. Ratings:

- a. Ratings rates exactly one pair of Consumer and Food Truck.(Business Rule)
- b. The ratings entity has rating_id as the primary key.
- c. Date is an attribute which cannot be null.
- d. Stars is an attribute which cannot be null.
- e. Comment is an attributes.

5. Employees:

- a. An employee works for at least one food truck.(Business Rule)
- b. Employees have an ID as the primary key
- c. Name is an attribute which cannot be null.
- d. Date of Birth is an attribute.

6. Locations:

- a. A location must be linked to at least one food truck.(Business Rule)
- b. A location may have a sales report.(Business Rule)
- c. A location must have hours.(Business Rule)
- d. Location has a location_id as the primary key.
- e. Address is an attribute which cannot be null.
- f. Start-time is an attribute which cannot be null.
- g. End-time is an attribute.

7. Sales:

- a. A sales report is generated by exactly one food truck location.(Business Rule)
- b. It has sales_id as the primary key.
- c. Date is an attribute which cannot be null.
- d. Amount is an attribute which cannot be null.

8. Hours:

- a. An hours entity must be linked to a location.(Business Rule)
- b. Hours has as a primary key of hours_id.
- c. Day is an attribute.
- d. End_time is an attribute which cannot be null.

- e. Start_time is an attribute which cannot be null.

Translation of the ER diagram:

We translated the diagram to the Relational schema using the techniques in class. We created tables for all the entity sets in the diagram. We didn't need any tables to explicitly show any of the relationships. We only had one instance where we had to combine an entity with the relationship. An example of such a combined (entity and relationship sets) table is the Ratings table that stores food truck ratings and also represents the ternary relationship set that exists between food trucks, consumers and consumer ratings. The actual tables we created in the database are written below:

Database Tables:

- Owners
- Consumers
- FoodTrucks
- Ratings
- Employees
- Locations
- Sales
- Hours

Data Acquisition:

The data loaded in the database was generated manually via insert statements. All insert statements are in the schema file, project.sql

All tables in the database were populated with realistic data and with sufficient connection between tuples in different tables while meeting the business rules and the project requirements.

User Interface:

1. Landing/Home page:
 - a. Allows the user to login as a Owner or a Consumer.
 - i. Owner:
 - Login in as any pre-populated owner to view food trucks and other information.
 - Example: Username: ii78
Password: ii78
 - ii. Consumer:
 - Login in as any pre-populated owner or register to leave a ranking for any food truck.
 - Example: Username: c137
Password: best
 - b. The landing page also allows the user to register via the register link.

- i. Enter username, password, name and choose a Consumer or Owner.
- ii. Submit will insert a new Owner or Consumer appropriately.

2. Owner page:

- a. A drop down list shows all the food trucks owner by the logged in owner.
- b. After choosing a food truck, an event populates four buttons.
 - i. Location: All locations for that food
 - ii. Hours: All hours for that food
 - iii. Sales: All sales records
 - iv. Employees: All employees working at the chosen food truck.

3. User page:

- a. A drop down list shows all food trucks in the database.
- b. After choosing a food truck, the user can select the amount of stars and leave a comment.
- c. Submit will insert a new rating for a food truck by that consumer.