DishSocial

A Social Network for the Culinary World

Ali Zargari, Jun Kit Wong, Omar Jamjoum, Nathan Nguyen, Charlie Nguyen

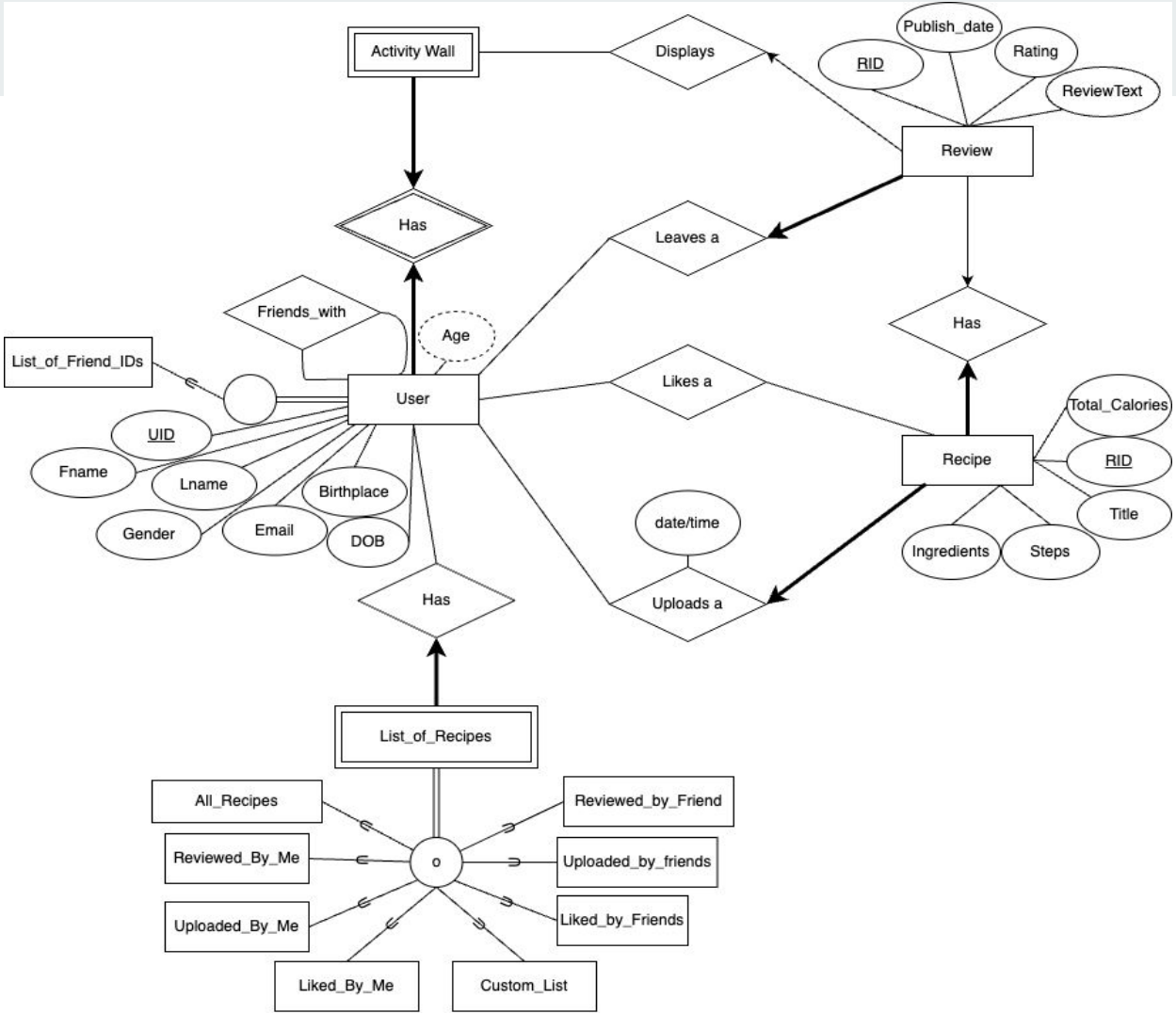
Problem Statement

- Hard to find and share recipes because information is scattered.
- No social platform focused on custom recipes for cooks.
- Cooks lack a place to connect with others who like similar foods.
- Finding recipes for specific diets is difficult.

DishSocial

- Create a platform focused on sharing custom recipes.
- Allow cooks to connect and share with like-minded individuals.
- Provide a way to upload, manage, and organize recipes.
- Include social features like liking, reviewing, and following.
- Add search filters for ingredients, recipes liked by friends, and more.
- Extremely easy to interact with recipes, or post a recipe.

EER Diagram


Activity Wall
Displays
Publish_date
Rating
RID
ReviewText
Review
Has
Leaves a
Has
Friends_with
Age
List_of_Friend_IDs
User
Likes a
Total_Calories
RID
Recipe
Title
UID
Fname
Lname
Birthplace
Gender
Email
DOB
date/time
Ingredients
Steps
Has
Uploads a
List_of_Recipes
All_Recipes
Reviewed_by_Friend
Reviewed_By_Me
o
Uploaded_by_friends
Uploaded_By_Me
Liked_by_Friends
Liked_By_Me
Custom_List

Functionality

User Management:

- Create user profiles with personalized information.
- View, modify, and manage non-key details.

Recipe Management:

- Upload recipes with detailed steps, ingredients, and nutritional info.
- Search for and delete uploaded recipes easily.

Functionality Continued

Recipe Discovery:

- Advanced search by ingredients, calories, steps, and more.
- Create custom lists with recipes liked.
- Filter recipes based on categories like reviewed by friends, liked by friends, etc.

In-App Interaction:

- Like, rate, and review other users' recipes.
- Follow other users to see their activity.

Functionality Continued

Social Wall:

View the reviews on recipes reviewed by followed users.

Scalability & Performance:

Optimized database for quick searches and seamless user experience.

Architecture and Implementation

- 3 Layers
  - Client Layer
    - Includes the front-end
  - Middle Layer
    - Includes Business Logic and our Queries
    - Makes requests to the middle layer,
    - Requests data from the db, sends to client
  - Database Layer
    - Includes all of the tables/our schema

Implementation Dependencies

Libraries Used:

```
"@faker-js/faker": "^8.4.1",
"body-parser": "^1.20.2",
"cookie-parser": "^1.4.6",
"cors": "^2.8.5",
"express": "^4.19.2",
"mysql2": "^3.9.3"
"axios": "^1.6.8",
"html-webpack-plugin": "^5.6.0",
"terser-webpack-plugin": "^5.3.10",
"webpack": "^5.91.0"
```

Development Environment:

- Webstorm IDE for frontend development
- Datagrip IDE for backend frontend
- Used JavaScript, CSS, and JSON
- Deployed data to an online database
- Deployed the application to GitHub Pages

Design Decisions

- Efficient Access:
  - Simple queries retrieve crucial info from relationships.
  - Dual relationships provide distinct functions with additional attributes.

- Core Entities:
  - Recipe, Review, User:
    - Connected, forming a "triangle"
    - Flexible queries: link recipes, reviews, and users.
  - Supplementary Entities:
    - Wall, List_Of_Recipes, List_Of_Friends.
    - Enhance queries: e.g., recipes uploaded by a friend.

- Key Relationships:
  - Core Relationships:
    - User_Leaves_Review
    - User_Likes_Recipe
    - User_Uploads_Recipe
    - Recipe_Has_Review

Design Changes

- Ingredients as TEXT:
  - Simplified by replacing the Ingredients Entity.
- No Review Votes:
  - Removed Vote Entity and sub-entities.
- No Image Support:
  - Omitting images simplified the UI.
- More Recipe Lists:
  - Additional entities for recipe grouping.
- No Dietary Preferences:
  - Too complex and reliant on Ingredients Entity.
- No Recipe Editing:
  - Deletion and recreation replace editing.

Demo

Challenges

- Creating 1000s of data was at first a challenge until we found the faker library
- To make sure the server code does not give any errors once deployed
- Authentication and caching
- Indexing

Future Plans

- Scale this application to have more users
- Improve performance
- Add more features
  - Recommended Recipes Page
  - Allow for image and video reviews/recipes
  - Robust Security