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# Databases Project Assignment 2
# FlavorFinder

## Entities → Tables

- Each entity set → one table (users, recipes, ingredients, cuisines).
- Weak entity recipe_steps → own table with composite PK (recipe_id, step_no).

## Relationships → Tables

- M: N → join tables:
    - recipe_ingredients (with attributes quantity, unit, optional_flag)
    - recipe_dietary
    - saved_recipes
- 1:N → foreign key (e.g., recipe_steps.recipe_id → recipes.recipe_id).

## ISA Hierarchies

- users superclass → chefs subclass (class-table inheritance).
- ingredients superclass → perishable_ingredients subclass (extra attributes).

## Constraints

- Surrogate PKs (AUTO_INCREMENT) for simplicity.
- Unique: users.email, ingredients.name, cuisines.name.

- Checks for ratings, valid ranges.
- FKs with ON DELETE actions:
    - CASCADE for dependent data (steps, ingredients, reviews).
    - SET NULL for chef in recipes (recipe still exists if chef deleted).

### Alternatives

- Could use single-table inheritance (one big users table with NULL columns).
- Could use natural keys (e.g., ingredients.name), but surrogate keys make joins simpler.
- Could denormalize (store ingredient names in recipes), but that risks update anomalies.

Repository:
https://github.com/Kats-19/Database-Project_FlavorFinder/blob/main/flavorfind_schema.sql