

CravesByIb

Ai-powered Meal Recommendation & Automation Platform

1. Proposed Database schema (BEFORE FEATURE ENGINEERING)

1. Ingredient (Atomic, Stable)

Ingredient

```
ingredient_id (INT, PK)
name (STRING)
category (protein, carb, fat, vegetable, spice)
unit (g, ml, piece)
avg_cost_per_unit (FLOAT)
calories_per_unit (FLOAT)
protein_g_per_unit (FLOAT)
carbs_g_per_unit (FLOAT)
fat_g_per_unit (FLOAT)
```

2. Recipe (Behavioral Anchor)

Recipe

```
recipe_id (INT, PK)
name (STRING)
meal_type (breakfast, lunch, dinner)
difficulty (easy, medium, hard)
prep_time_minutes (INT)
```

3. Recipe_Ingredient (Structural Glue)

Recipe_Ingredient

```
recipe_id (FK)
```

ingredient_id (FK)
quantity_required (FLOAT)

4. User (Lean, Extensible)

User

user_id (INT, PK)
diet_type (none, vegetarian, vegan, keto)
daily_calorie_target (INT, nullable)

5. User_Pantry (Decision Surface)

User_Pantry

user_id (FK)
ingredient_id (FK)
quantity_available (FLOAT)

6. User_Budget (Scalar Constraint)

User_Budget

user_id (FK)
max_budget (FLOAT)
currency (STRING)
