Conceptual schema

Open Information Systems Project: The last recipe

Use cases

Case 1: Looking up recipes

The user should be able to look up recipes by their title or category.
Entities used:
- Recipe
- MealCategory

Case 2: Consulting recipe ingredients

The user will receive nutritional information about the recipe as a whole and about each ingredient it contains.
Entities used:
- Recipe
- CookingStep
- Ingredient
- Restriction
- IngredientCategory

Case 3: Consulting recipe steps

The user will be able to see the steps necessary to cook the actual meal.
Entities used:
- Recipe
- CookingStep
- Ingredient
- Tool

Case 4: Filtering by tools and time

The user should be able to filter recipes by the tools (or time) he has available. To achieve this a CookingStep has a timeRequired attribute and a relation to one or more tools.
Entities used:
- Recipe
- Tool
- CookingStep

Case 5: Allergies / dietary restrictions

The user should be able to filter out recipes that contain ingredients the user is allergic to or cannot eat due to dietary restrictions (e.g. vegan).

Entities used:
- Ingredient
- IngredientCategory
- Restriction

Case 6: Looking up similar recipes

The user should be able to search for similar recipes that satisfy different constraints, such as swapping ingredients.
Entities/Relations used:
- Ingredient
- IngredientCategory
- CanBeSubstitutedBy

Misc.

Our only weak entity is the *CookingStep* which justifies the use of an artificial identifier as unique key.
The price, the diet and properties such as the total amount of calories of a recipe can be inferred.
The Restriction Entity corresponds to a Diet or Allergy category an ingredient can be part of.

Attachments

ER Diagram