Grade: *

No title page (who wrote this report? :-))
No structure (abstract, introduction, etc.)
There is no introduction of your IS, you only provide use cases. I presume that you also meant “Use Case” instead of “Case”

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:

unit?

- 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.

I argue that the order number is not as artificial as it sounds, as the number and recipe identify a step.

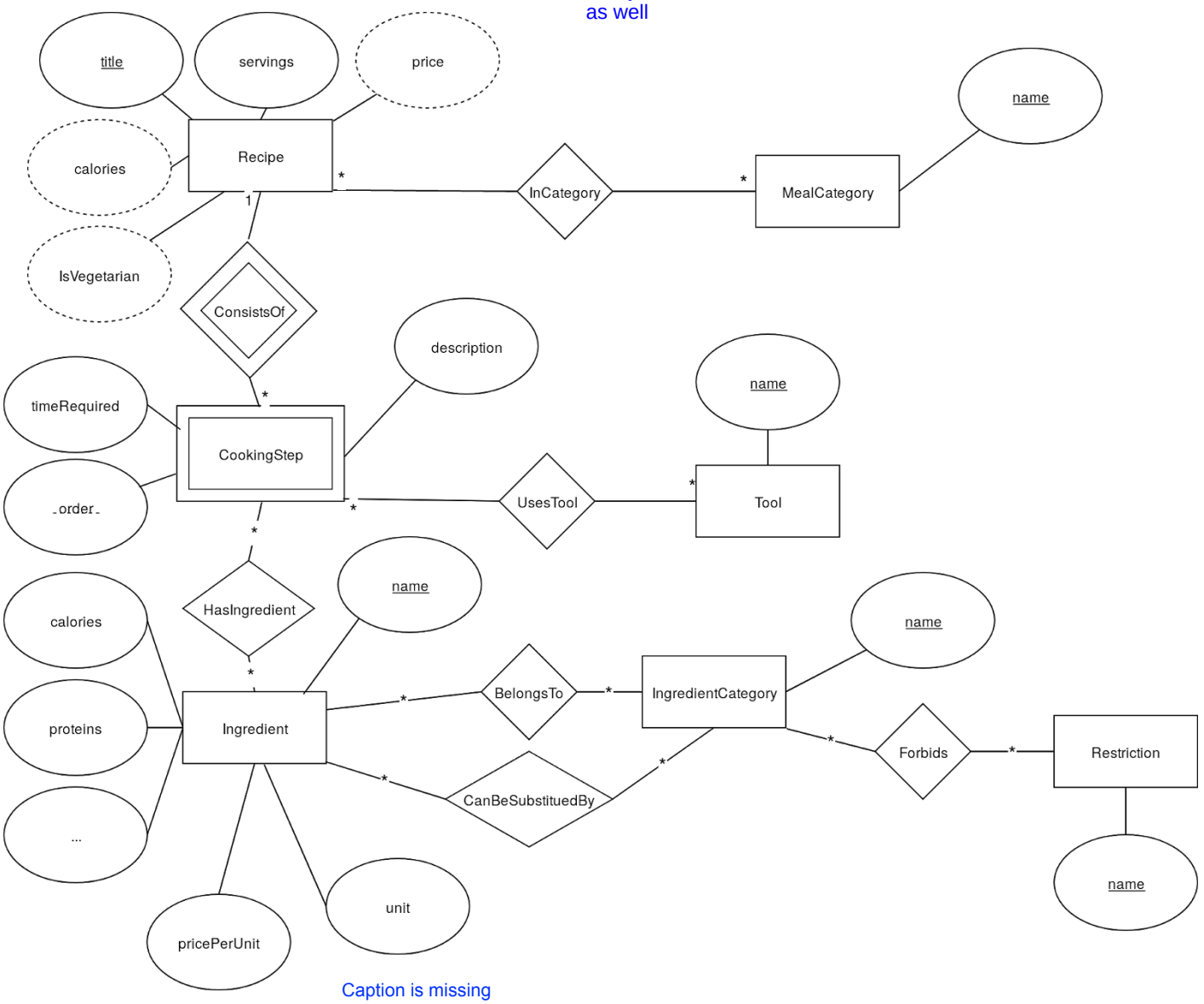
Our only weak entity is the *CookingStep* which justifies the use of an artificial identifier as unique key.
The price, the diet and properties such as the total amount of calories of a recipe can be inferred. But what are the units, currencies, etc.?
The Restriction Entity corresponds to a Diet or Allergy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

In your model, you can “globally” swap an ingredient with another. This might be true for some recipes, but not for all. For instance, you can replace “butter” by “coconut oil” (which isn’t a liquid at room temperature) to grease a pan, but you wouldn’t replace butter by coconut oil in a pound cake.

Attachments

ER Diagram

Cardinality is not entirely correct always indicate the lower bounds as well



Caption is missing