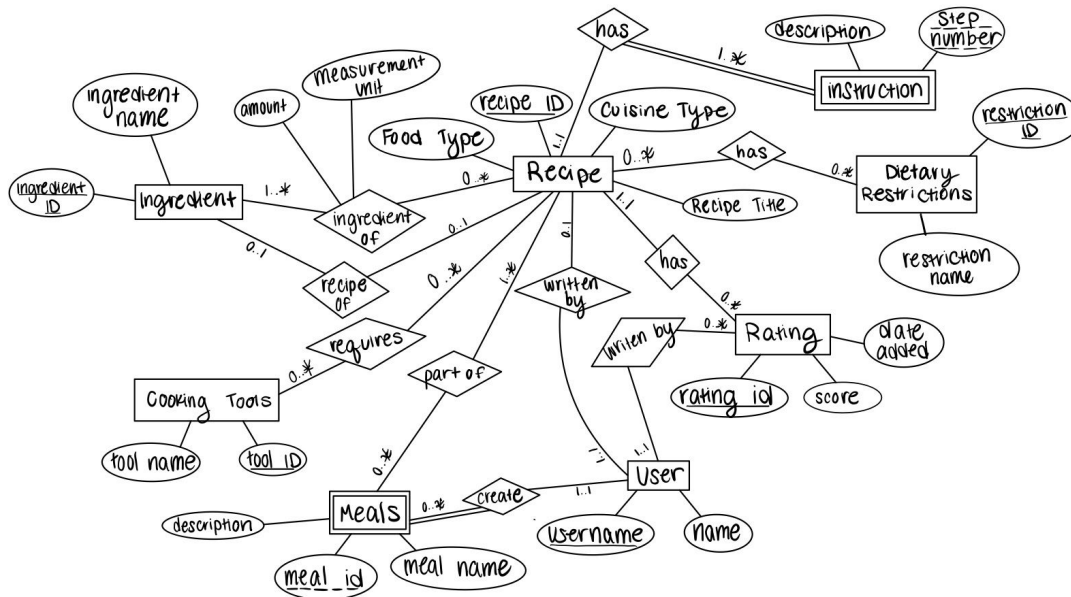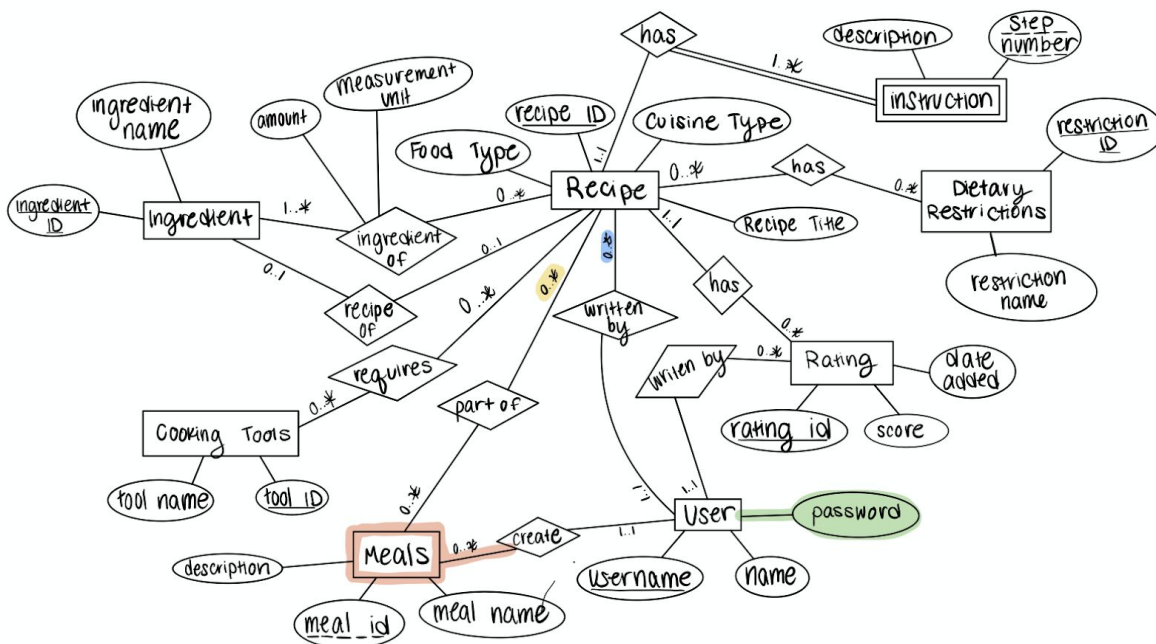Anna Smith
Jalen Tacsiat
CPSC 321 - Databases
Project 3

Original ER Diagram:

Revised ER Diagram plus specifications:

Ingredient
Ingredient name must be unique
Ingredient ID will be auto-incrementing
If recipe is deleted, the ingredient it is a recipe of is not deleted, recipe is set to null (ON DELETE SET NULL constraint on recipe foreign key)

Cooking Tools
Tool name must be unique
Tool ID will be auto-incrementing

Meals
Meal ID is auto incrementing
Description can be NULL
Meal name must not be NULL
Meals are dependent on user (if user is deleted, so is meal)
Removed weak dependence on recipe, will add a deletion constraint instead
If recipe contained in meal is deleted, Meal still exists but without that specific recipe (ON DELETE SET NULL)
Changed cardinality constraint from 1..* to 0..* so that meal still exists if all recipes are deleted

User
Added password attribute
Password must not be NULL
Password must at least 8 characters long
Username must be at least 5 characters long
Name must not be null
Changed cardinality constraint from 0 .. 1 to 0 .. * for recipes (typo from last time)

Rating
If user is deleted, user is set to null (ON DELETE SET NULL)
Rating ID is auto-incremented
Score is not NULL
If corresponding recipe is deleted, rating is also deleted (ON DELETE CASCADE)

Dietary Restrictions
Restriction name must be unique

Instruction
Description is not null

Recipe
Recipe ID is auto increment

2. Translation

Entities:

Recipe(<u>recipe_id,</u> food_type, cuisine_type, recipe_title, username)
- username is a foreign key to User

Dietary Restriction(<u>restriction_id</u>, restriction_name)

Ingredient(<u>ingredient_id</u>, ingredient_name, recipe_id)
- recipe_id is foreign key to Recipe

CookingTool(tool_name,<u>tool_id</u>),

Meal(<u>meal_id</u>, meal_name, description, username)
- username is a foreign key to User

User(<u>username</u>, name, password)

Rating(<u>rating_id,</u> score,date_added, username, recipe_id)
- Username is a foreign key to User
- recipe_id is a foreign key to Recipe

Instruction(<u>recipe_id, step_number</u>, description)
- Recipe_id is a foreign key to Recipe

IngredientOf(<u>recipe_id, ingredient_id,</u> amount, measurement_units)
- Recipe_id is a foreign key to Recipe
- Ingredient_id is a foreign key to Recipe

CookingToolsRequried(<u>tool_id, recipe_id</u>)
- Tool_id is a foreign key to CookingTool
- recipe_id is a foreign key to Recipe

RecipeHasDietaryRestrictions(<u>recipe_id, restriction_id</u>)
- Recipe_id is a foreign key to Recipe
- restriction_id is a foreign key to DietaryRestriction

RecipesInMeals(<u>meal_id, recipe_id</u>)
- Meal_id is a foreign key to Meal
- recipe_id is a foreign key to Recipe