

## PM2 design

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Video link:

<https://youtu.be/vzg7xBAPIZc>

Data source link:

[https://drive.google.com/file/d/1iYS0aWIVzlGUmzr5vUAu9O-y\\_Sm07aHu/view?usp=sharing](https://drive.google.com/file/d/1iYS0aWIVzlGUmzr5vUAu9O-y_Sm07aHu/view?usp=sharing)

This time, we have finished designing the main frame of our project. Our web app is a platform of sharing recipes, it will share tons of recipes on our main page, it will also allow users to create their own accounts, and therefore in the future store whatever recipe they like in different categories. Furthermore, we will also implement recommendation system which can recommend recipe by categories to customers. In our designing, the program contains 3 major parts, recipes, users, and recommendations. We'll walk through our UML from recipe table.

Recipe is an entity represents a recipe, which contains information of course name, ingredients, and instructions. It has a unique Recipeld as primary key, also contains attributes of name, ingredients and instructions.

For the purpose of future recommendations, we also implemented categorized recipe entities, VegetableRecipes, SeafoodRecipes, MeatRecipes, DessertRecipes, and DiaryRecipes. These entities all have composition relation with Recipe entity. They will be shown on different categories in recommendations page of our app, categorized by types.

There's another entity, UserTagRecipe, also has a composition relation with Recipe entity. In our design it will represent a recipe which is liked and stored by a user. It is a recipe, and also related to users, we will talk about this later.

User is another major entity in our program, it represents a user who has registered with our system. Currently our user only has a unique UserId as primary key. In the future, we will try to add attributes of username, password, email, and phone number.

We will allow users to store favorite recipes, and they should be able to store their recipes by different categories. So there is another entity, UserFavoriteTag, represents different favorite categories of users. It has a FavoritesId as primary key, and UserId as a foreign key.

Favorite recipes are categorized by UserFavoriteTags. It is a recipe, has a TagId as primary key, and favoritesId, UserId, RecipId as foreign keys.

We will also allow our user to browse their search histories, so an entity SearchHistory is created. We use UserId and RecipId as composite primary key for this entity, also included an attribute of RecipeName.

Users can also rate a recipe, RecipeRates is the entity to employ it. UserId and RecipId are designed as a composite primary key for this entity, then it enables attributes of rating and LastModifiedText.

The last entity is Recommendation. Currently it is designed to show recommendations without categories, so simply has a RecommendId as primary key, RecipId as foreignKey, other attributes of rating and RecipeName. We will try to enable recommendation categories in the future.