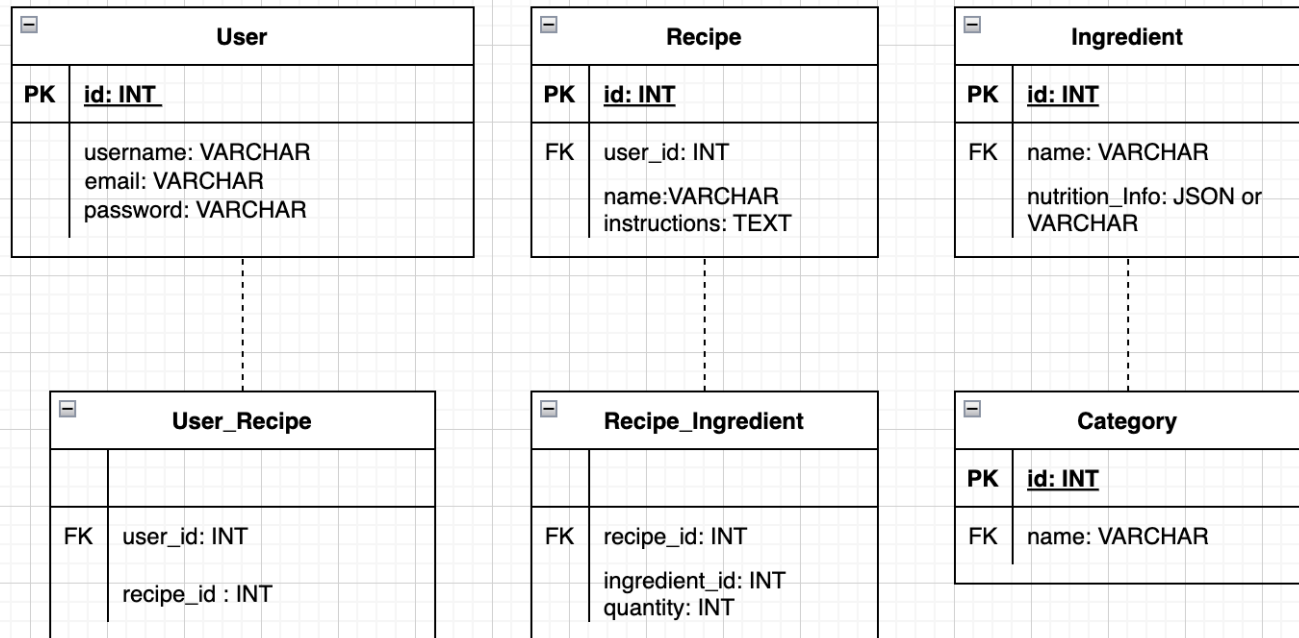


Data Management Strategy



PK - Primary Key

FK- Foreign Key

Database Type:

- This database will use an SQL database. This database will sort structured data and will help with complex queries as opposed to NoSQL databases.

Database Design:

- We chose to use 6 different database tables because it will make it more efficient and organized to have multiple tables for different purposes. These tables are linked together via foreign keys and can help minimize data redundancy and maintain data integrity.
- The data is split up using 6 tables named User, User_Recipe, Recipe, Recipe_Ingredient, Ingredient, and Category. A User can correspond to a User_Recipe, a Recipe can correspond to a Recipe_Ingredient, and an Ingredient corresponds to a Category. A User has a one to many relationship with the User_Recipe table. The Recipe to Recipe_Ingredient ensures a many to many relationship while the same goes for Ingredient to Category.
- Possible alternatives we could have used include (both in technology and organization of data) are NoSQL and a single-table design, this would, however, be more inefficient as this wouldn't support complex queries that are needed for the software design.
 - The development time for the structured multiple-table database design might be greater, but it could lead to easier maintenance and scalability as development goes on.