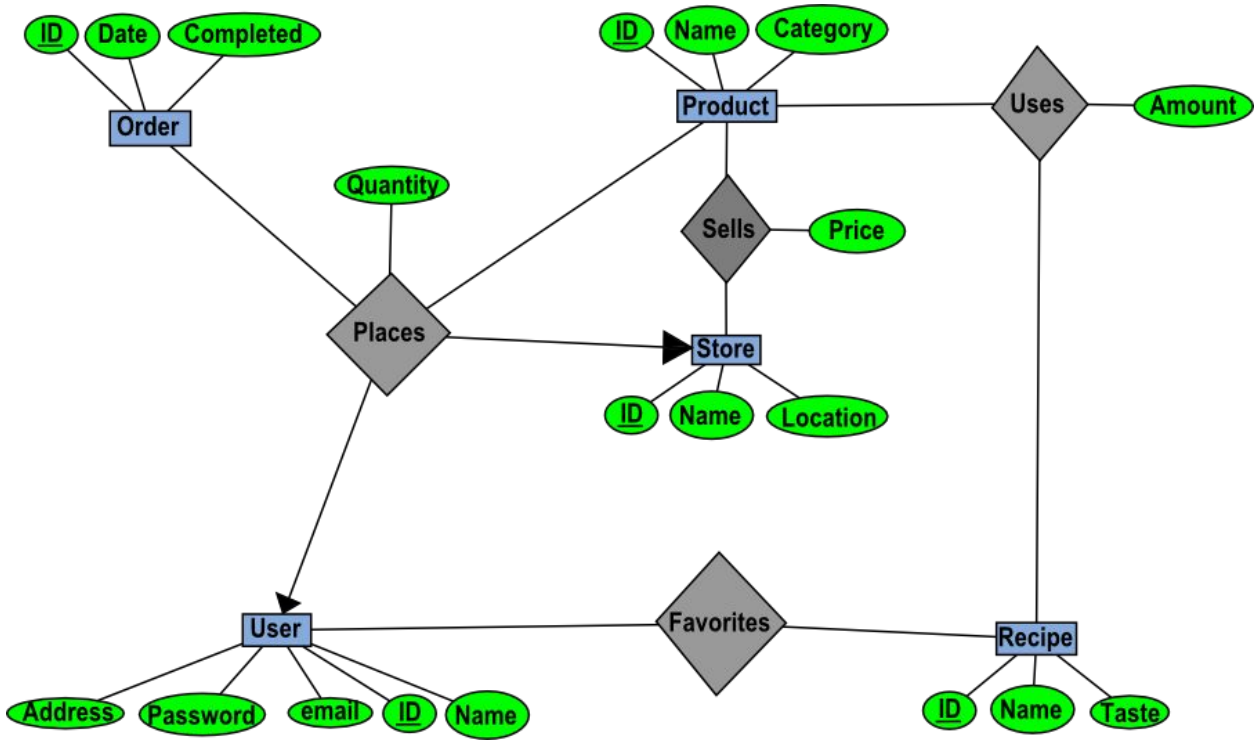
ER Diagram



Relational Schema & Functional Dependencies

All our functional dependencies are in BCNF, because what is on the left of arrow is a superkey, so they are in BCNF and 3NF.

User(<u>UserID</u>, Name, Email, Password, Address)
UserID ➡ Name, Email, Password, Address
UserName ➡ Email, Password, Address, UserID
Email ➡ UserName, Password, Address, UserID
(UserID is the primary key. UserName or Email are alternative keys)

Store(<u>StoreID</u>, Name, Location)
StoreID ➡ Name, Location
Location ➡ StoreID, Name (Non trivial FD)
(StoreID is the primary key. Location is an alternative key)

Product(<u>ProductID</u>, Name, Category)
ProductID ➡ Name, Category
(ProductID is the primary key)

Recipe(RecipeID, Name, Taste)
RecipeID ➡ Name, Taste
(RecipeID is the primary key)

Favourites(UserID, RecipeID)
(UserID and RecipeID is the primary key)

Sells(ProductID, StoreID, Price)
ProductID, StoreID ➡ Price
(ProductID and StoreID is the primary key)

Uses(ProductID, RecipeID, Amount)
ProductID, RecipeID ➡ Amount
(ProductID and RecipeID is the primary key)

Places(OrderID, ProductID, UserID, StoreID, Quantity)
OrderID, ProductID ➡ UserID, StoreID, Quantity
(OrderID and ProductID is the primary key)

Software Platforms/Languages

Framework: Ruby on Rails
RDBMS: PostgreSQL

Labor Division

We will have all group members work on data entry as necessary. For the rest of the work we will divide into two groups of two. One group will work on the back-end and the other will work on the front-end. We will work together using GIT to pull all the work together.

Describe where you will get data for your application. Do you get it from the Web, some other application, or do you make it up?

We will make up the data ourselves basing it somewhat on data we will research to make it as realistic as possible.