## Final Project Proposal

Base on the requirement of the Final Project, I prefer to design a project which records all of the information of almost of Chinese restaurants in Eugene.

In app, user could find the restaurant in one section based on the category of the restaurants, but it's easier to directly find the restaurant by typing the name in search bar. After the users find and clicked into the restaurant, it basically will show the image of the restaurant and a menu button used to check the cost of different kind of categories of the menu based on food, beverage and dessert options shown in tab bar. The other information like address, phone number of the restaurant will automatedly present above the menu section besides the image of the restaurant. Users can directly call the phone number by pressing the text if there exists such contact information, also they have a permission to comments the restaurant. Moreover, the app will record the location of the restaurant in map which users can clearly check it by pressing the map button in navigation bar.

In order to design an app like above, there must exist a table view which segue to the navigation controller for recording the name of the restaurants in one section firstly. Another view controller not only will be built to check the menu as press the menu button, the address and phone number as shown in a label or text, it also has a comments button for users to read other guys comments or insert a new comment. In the menu section, table view controller will be built to store the food, beverage and dessert name and their cost separately in tab bar controller. In addition, the custom View controller will occur when users select the contact information like the phone number. It used to double check whether users decided to make a phone call. Finally, an image view controller to record the restaurant location should be represented when users press the map.

As the conclusion, it probably will have 5 different non-trivial scenes as

view controllers which called **name of restaurants**, **restaurant information**, **comments**, **dishes information** and **map** and one custom view controller. Also, the three option project criteria I determined are allow the user to interact with the device camera or photos when comments the restaurant; Allow the user to interact with the device address book or calendar events and/or send relevant emails when press the phone number; Present data using an integrated map for location of the restaurant. At last, the core data in app should have eight entities which named as

name, image, map, restaurant\_information, food, beverage, dessert and comments.

The **name** entity should have a required attribute to string to store the name of the restaurants and has optional to-many to **food**, **beverage**, **dessert**, **comments** entities and optional to-one to **restaurant\_information**, **image** and **map** entities.

The **restaurant\_information** entity should have a required attribute to string to store address and interger32 to store phone number. It needs to keep required relationship as to-one to **name** entity

The **food**, **beverage** and **dessert** entities should have a required attribute to integer 32 to store cost and string to store name. It needs to keep required relationship as to-one to **name** entity.

The **image** entity should have a required attribute string to store the image names and has to-one to **name** entity.

The **comments** entity should have a required attribute to string to store the comments users added. It needs to keep updated and required relationship as to-one to **name** entity.

The **map** entity should have a required attribute to string to store the map of the navigations and has to-one to **name** entity.

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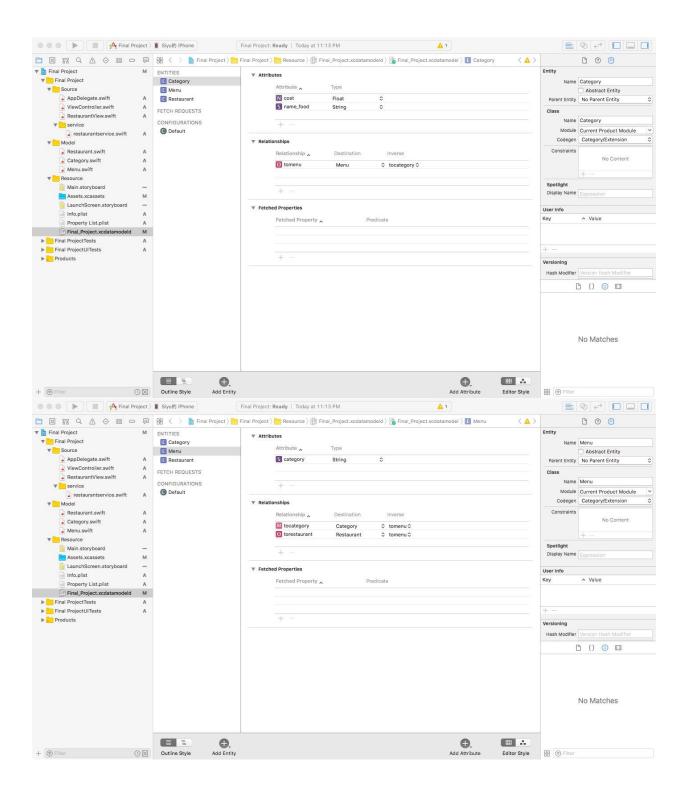
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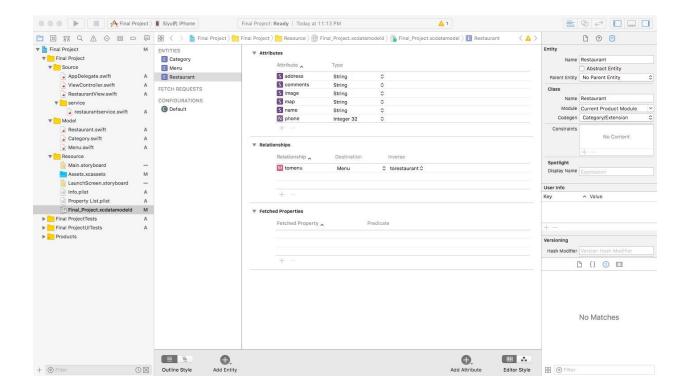
*Update in July 31<sup>st</sup>, after optimized and simplified, the entity should be reduced to 3 as restaurant, menu and category.* 

The **restaurant** should have a required attribute to string to store address, int32 to store phone, string to store image, string to store comments and string to store map. It has relationship as optional to-many to **menu**.

The **menu** should have a required attribute to string to store category name and relationship as optional to-many to category and to-one to **restaurant** inversely.

The category should have required attribute to string to store name of the dishes, float to store cost. It has relationship as to-one to menu inversely





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