**High Level Architecture**



**Description:** We used the model called Model-View-Controller. Essentially our model is composed of two files acting as primary resources; one will containing categorized lists of the ingredients and the other will contain the recipes. The controllers will essentially be acting within a windows form class which will activate the necessary subroutines specified. Finally the view will be managed by delegate methods that act as medium between the display methods in the controller and what is displayed.

**Design Issues**

## Reusability

- The proposed system will use a text file to load its recipes and ingredients. If at any time a recipe needs to be added or a recipe removed this file may be altered to provide for those needs.

- The proposed system will implement flexible methods that may be used in a varying context. For example the resource file containing the ingredients and recipes might be modified to be drink instead of food recipes and ingredients.

## Maintainability

The system will use two resource files to load the recipe and ingredient information. This file might contain artificial semantic errors. The information of this file will be setup in a delimited text file for easy modification.

The systems methods will be flexible enough that if the application were piped with different input; the program would handle such input.

## Testability

**See Test Plan**

## Performance

## Portability

The proposed system will only be supported on Windows Systems. Two versions of the program will be made: one for 64-bit systems and another for 32-bit systems.

## Safety

The proposed system will filter out recipes containing ingredients that the user has specified to have an allergy for. For all recipes if the recipe has a known common allergen then it will be clearly labeled in a red box.