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Incremental and Regression Testing

Classification of Components

Module Description

Login Page

     This component allows user to login into the website using their google accounts or bypass the login and use the website in guest mode. Logging in through google can allow them to share their recipe on social media.

     Inputs: Click on guest login.

     Outputs: Redirects to Ingredients page.

Ingredients Page

     Users can use the two search bars on this page to specify the ingredients they want and don't want. This module delivers these inputs to the machine learning components and passes the received recipe information to the recipe page.

     Inputs: Specify/Add ingredients that user wants and does not want in their recipe.

     Outputs: Redirects to recipe page.

All Recipe Page

     Users can come to this page to look at all the recipes in our database. Interacts with the parsing module to get some x number of recipes to display at a time. Once a recipe is selected, gets more information about the recipe and passes it to the recipe page.

     Input: Select a particular recipe to read detailed description/instruction.

     Outputs: Redirect to the recipe page to display the selected recipe in detail.

Recipe Template

     Displays information received from the ingredients page or the all recipe page and uses the user information received from the login page to facilitate sharing.

     Inputs: Takes information of a particular recipe.

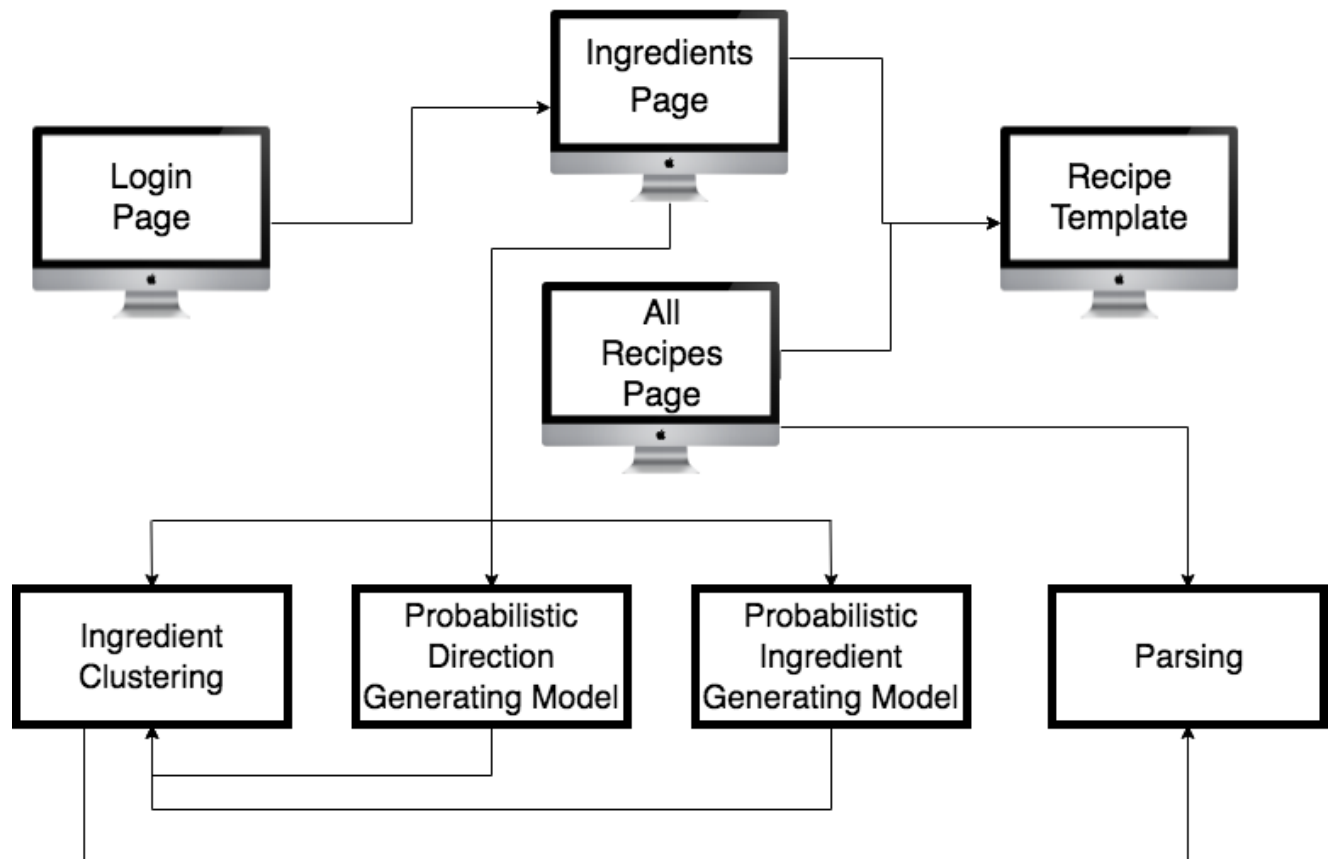   *Outputs:* Displays the recipe in a properly formatted manner.

Parsing
> Parses the dataset to enable the machine learning and clustering components to take full advantage of the data. Also provides information to all recipe page.
>
> *Inputs*: JSON and CSV data. Also, receives calls from all recipe page.
>
> *Outputs*: Produces .txt and .list files for parsed directions, parsed ingredients, etc. Returns recipe information to all recipe page.

Incremental Testing Technique

The testing approach used was top down in which we implemented the modules above and used stubs to simulate the behavior of the lower modules.

The upper level modules were implemented first. Lower ones were simulated by stubs. As in when those lower modules were implemented, the stubs were replaced by the actual modules and testing was performed on them.

Incremental and Regression Testing

Defect Log

Module	Parsing		
Defect No.	Description	Severity	Solution
1	onClickNext method was returning empty list when next was clicked after the last of the recipes have already been displayed	2 (Caused the all recipe page to display empty list)	Check when no next recipes are left, return the same recipes again.
2	onClickPrevious method was returning empty list when previous was clicked after the first of the recipes have already been displayed	2 (Caused the all recipe page to display empty list)	Check when no previous recipes are left, return the same recipes again.
3	getRecipe method was receiving the id from 0 to 9 (which was the index of the recipe in all recipe page list) and not the actual id	1 (Caused the recipe page to display the wrong recipe)	Consider which 10 recipe all recipe page is displaying right now and return the recipe based on that.

Module	Ingredients Page		
Defect No.	Description	Severity	Solution

1	Ingredients search bar was not updating ingredients properly. ajax async was set on true so, statement began its execution and the next statement was called regardless of whether the async statement was completed or not	2 (Caused the recipe page to display the wrong recipe as all ingredients were not updated properly	Set ajax async to false. ajax async: false will hold the execution of rest code. Once we get response of ajax, only then, rest of the code will execute.
2	Autofill feature displayed the last - closest ingredients from the parsed file based on regular expression. (eg: Entering "eg" displayed "eggplant" instead of "eggs")	1 (Caused the Autofill feature to display the last - closest ingredient.)	Change the regular expression to display the closest matched ingredient instead of the last - closest ingredient.

Module	All Recipe Page		
Defect No.	Description	Severity	Solution
1	An empty input returned by the parsing module was not being handled for next and previous buttons	1 (Caused the app to crash)	Display the empty page on All recipe page whenever an empty list was returned by the parser module

Module	Recipe Template		
Defect No.	Description	Severity	Solution

1	Formatting and Indentation errors in Recipe Template as different recipes have different length. Some recipes are long with many instructions while some are short with fewer instructions.	3 (Caused Indentation and Formatting error)	Used dynamical modal property which will resize the modal by overriding its default specs.