



## **EggMaster Process Report**

*A cake recommender app that aims to create a fun experience of making a cake with friends, enhancing the cake DIY store experiences in Taiwan.*

## Background

Everyone likes to eat sweets, eating sweets make people happy. One of the best experience that one could have is to share this happiness with your friends or someone important, and this could be achieved by making a cake together. EggMaster is a store that provides a platform for you to make cake with your friends and family, tools and ingredients are all provided.



However, everyone has different preference of taste, so when it comes to making a cake together, the decision could be difficult. EggMaster provides a recommender system that can gather all the preferences of the group member and come up with a recommendation of cake that matches with the preferences.

## The Recommender System

To give an overview of how the recommender system works: all ingredients are categorized by their feelings/tastes, because we think that, when we are craving something, we are actually craving that specific “feeling” or “taste”, instead of the “food” itself, it is the taste and feeling of the food that can satisfy our sweet tooth. Therefore, the customer could choose their ingredients based on the feeling/taste of their current mood, some examples of categories are like: Rich & Creamy, Textured Bites. After everyone have selected their preferences, the system will custom the cake using the four components of the cake: Cake batter, filling, dressing, and topping. Further explanation will be given on how each ingredients is classified under certain component. The end result of cake will be a combination of ingredients that are favored by the group members, and omitted the ingredients that the group members do not like.

One concept that is important to keep in mind, the sole purpose of EggMaster is to create a fun experience of making a cake with your friends, to build connection and bond with each other through this cake making experience, more than making a delicious perfect-in-taste cake. It might happened that some combination of ingredients could be weird, but it is all about the experience of the process.

## Card Sorting

Since everyone has different feeling and taste bud toward different ingredient, so I decided to do a card sorting analysis, asking people to categorize the ingredients under different feeling/taste. I asked a total of 5 people to fill out the form below:

<b>CLASSIFY THEM INTO CATEGORIES BELOW (ONE OBJECT CAN BE IN MORE THAN 1 CATEGORIES):</b>		
<b>TEXTURED BITES</b>	<b>SWEET &amp; LOVE</b>	a) Cookies Crunch
		b) Cookies Base
		c) Pudding
		d) Nuts
		e) M&M
		f) Lemon
<b>RICH &amp; CREAMY</b>	<b>LIGHT &amp; SOFT</b>	g) Strawberry
		h) Blueberries
		i) Orange
		j) Banana
		k) Mint
<b>FEELIN' FRESH</b>	-----	l) Chocolate
		m) Matcha
		n) Vanilla
		o) Caramel
		p) Cream Cheese

Below is a screenshot of the results analysis:

	Textured Bite	Rich & Cream	Feelin' Fresh	Sweet & Love	Light & Soft
Cookies Crun	5				
Cookies Base	5	1		1	
Pudding	2	1		3	1
Nuts	4				
M&M	3	1		2	
Lemon			5		
Strawberry			4	3	1
Blueberries			4	1	1
Orange			5		
Banana			3		4
Mint			4		1
Chocolate		1		5	
Matcha		1		3	1
Vanilla		2		4	2
Caramel		3		4	
Cream Cheese		4			1
<b>TOTAL</b>	<b>3.8</b>	<b>1.75</b>	<b>4.1666667</b>	<b>2.8888889</b>	<b>1.5</b>

## Type of System

It is a hybrid recommender system, which means a combination of content-based and collaborative. Because the system first collects every single participant's preferences separately, then come up with one final results that suits with everyone's preferences by compare and contrast with each other's preference. How the system categorize ingredient into four component is by following the list below:

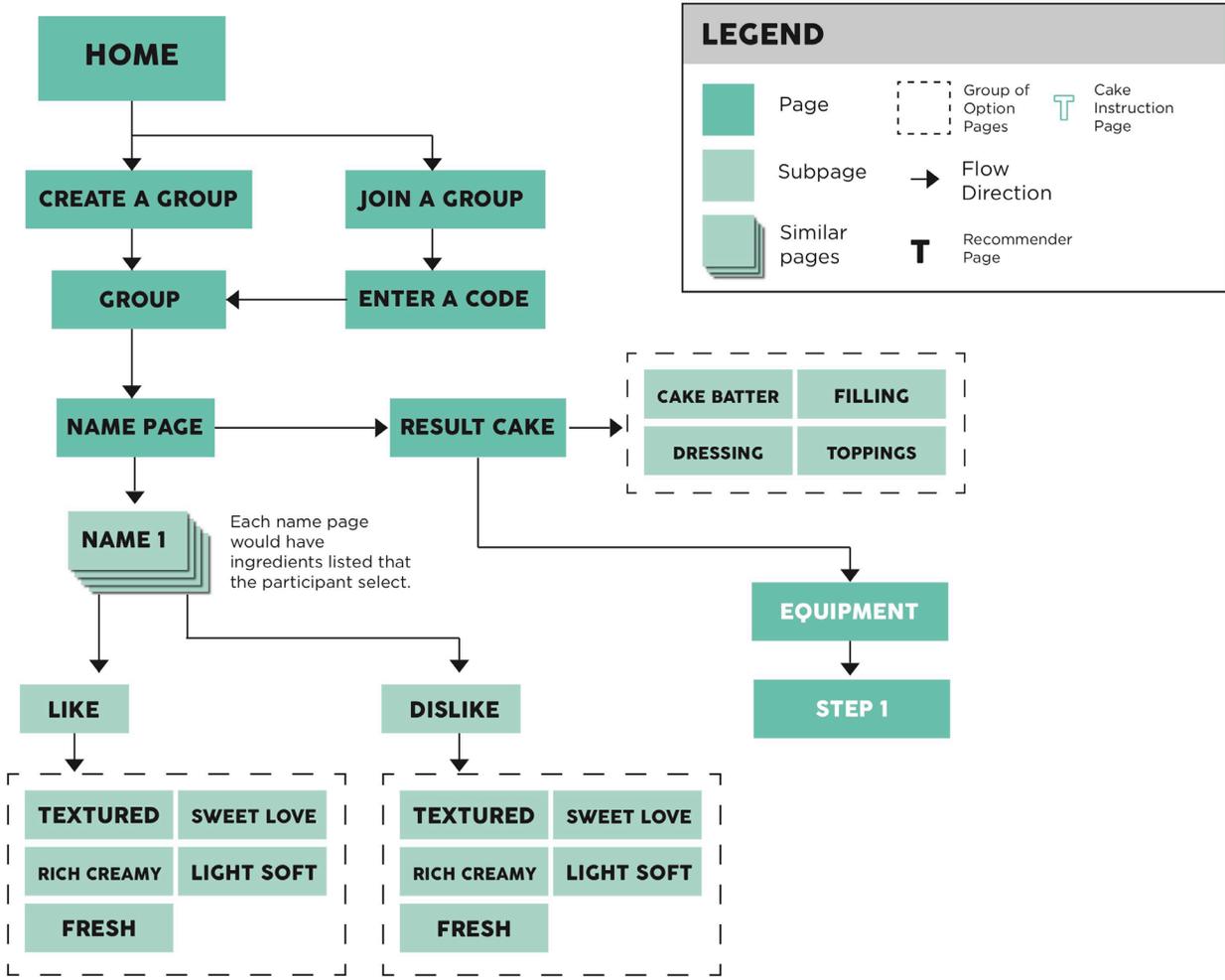
Cake Batter	Filling	Dressing	Topping
<ul style="list-style-type: none"> <li>• Original</li> <li>• Mint</li> <li>• Chocolate</li> <li>• Matcha</li> <li>• Vanilla</li> </ul>	<ul style="list-style-type: none"> <li>• Custard: Chocolate, Caramel, Matcha, Vanilla</li> <li>• Pudding</li> </ul>	<ul style="list-style-type: none"> <li>• Mousse: Chocolate, Caramel, Matcha, Vanilla</li> <li>• Syrup: Chocolate, Caramel, Matcha, Vanilla</li> <li>• Ganache: Chocolate, Carareml, Matcha, Vanilla</li> </ul>	<ul style="list-style-type: none"> <li>• M&amp;M</li> <li>• Nuts</li> <li>• CookiesCrunch</li> <li>• Whipped Cream</li> <li>• Banana</li> <li>• Orange</li> <li>• Blueberries</li> <li>• Strawberry</li> </ul>

However, some ingredients just doesn't belong to certain categories, for example Caramel would never make you feel Fresh, so I've also created a table about the ingredients that cannot be used in certain categories:

Textured Bites	Rich & Creamy	Feelin' Fresh	Sweet & Love	Light & Soft
All	All but fruits, mint, and lemon	All but M&M, whipped cream, caramel	All	All but M&M

Except for being a hybrid recommender system, CakeMaster is also explicit interaction, as it directly collects people's opinion (Like/Don't Like) on the ingredients, instead of going in implicitly to discover people's pattern. Therefore, it is a **hybrid recommender system with an explicit interaction.**

# Site Map



# Interaction Flow

Click [here](#) to zoom in to the Interaction Flow chart.

