

1. Introduction – Scenario and Motivation

Everybody needs to eat, to fuel the body with the necessary nutrition to make it work. There is no doubt about it and everyone will agree. But probably not when it comes to cooking. Some people love it, some people hate it. Some people do it every day, some from time to time and some don't do it at all.

The question is: What is the reason that people don't cook? Because cooking your own food has a lot of benefits.

We found that serious reasons are time and effort. Especially if people are inexperienced cooks it will take them forever to find a recipe that they like and that is not too complicated, to find the needed ingredients in the store and to prepare everything before the actual cooking starts.

So, a lot of people will most likely choose a food option that is not providing a good nutrition to their bodies..

But eating healthy and taking care of your body and well-being is trending right now.

That's when our idea of "Hello Yummy" comes into place, because it will help people to be healthier and feel better with less effort and time. And of course, not to forget about the great social benefits of cooking together.

2. Introduction and comparison of the two processes via INCOME

2.1 Supermarket (As-Is Model)

The As-Is Model (Figure 1) shows the current process of buying groceries for a certain recipe in a supermarket. The process starts with making a shopping list, which is shown by the drill down in Figure 2. Then the customer drives to the supermarket and tries to buy all the ingredients, if some of the ingredients are not available in this store he needs to drive to another store. After that the customer drives back home.

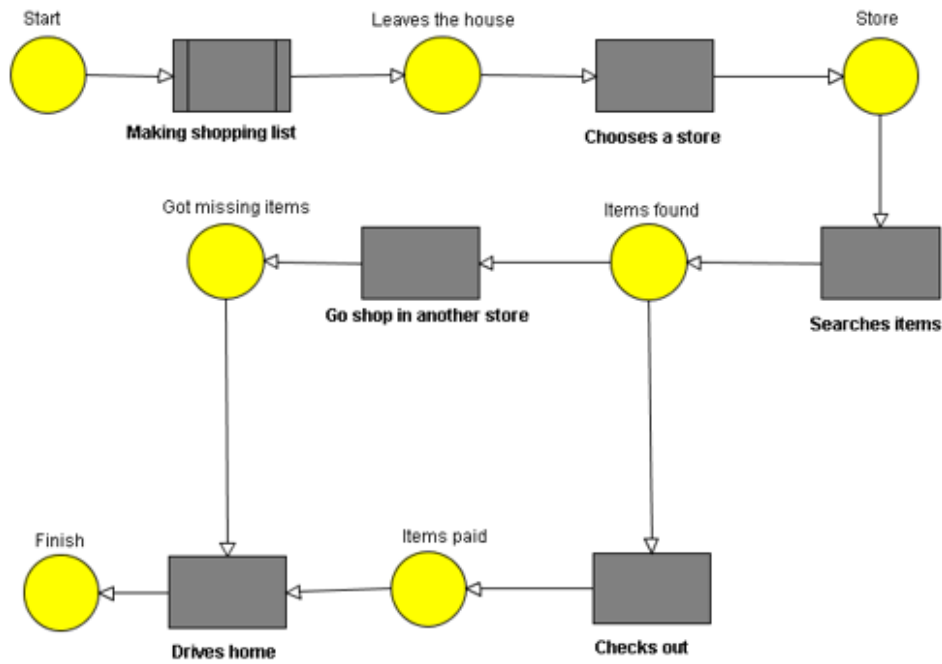


Figure 1: As-Is Model Overview

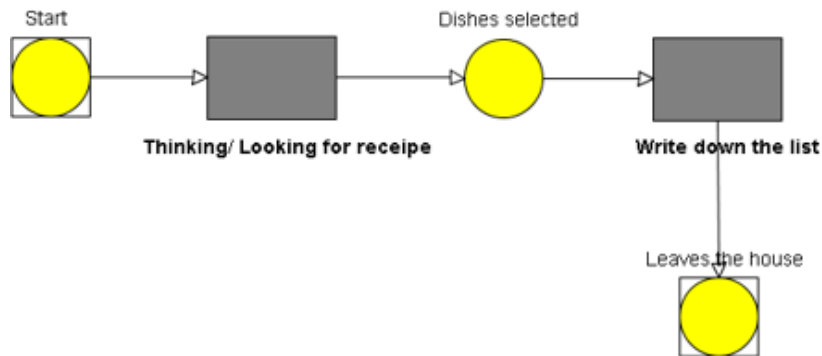


Figure 2: As-Is Model Drill-Down: Making shopping list

2.2 "Hello Yummy" (To-Be Model)

Instead of developing just an online supermarket, which also could be a To-Be Model of the described process of buying groceries, we decided to implement a new concept.

The idea of this new concept is to provide weekly changing recipes online, which the customer can find on our web page. After picking the recipe(s) he likes, he orders a box. This box contains all the needed ingredients in the exact required measurements and a step-by-step recipe guide in a printed form as well as a QR code for a digital version with explanation videos. This process is shown in the INCOME Model in Figure 3. The drill down in the model is focused on the select recipes and quantities process represented in Figure 4 where the customer decides on the recipes he wants to cook and how many portions of the dish he needs and order it.

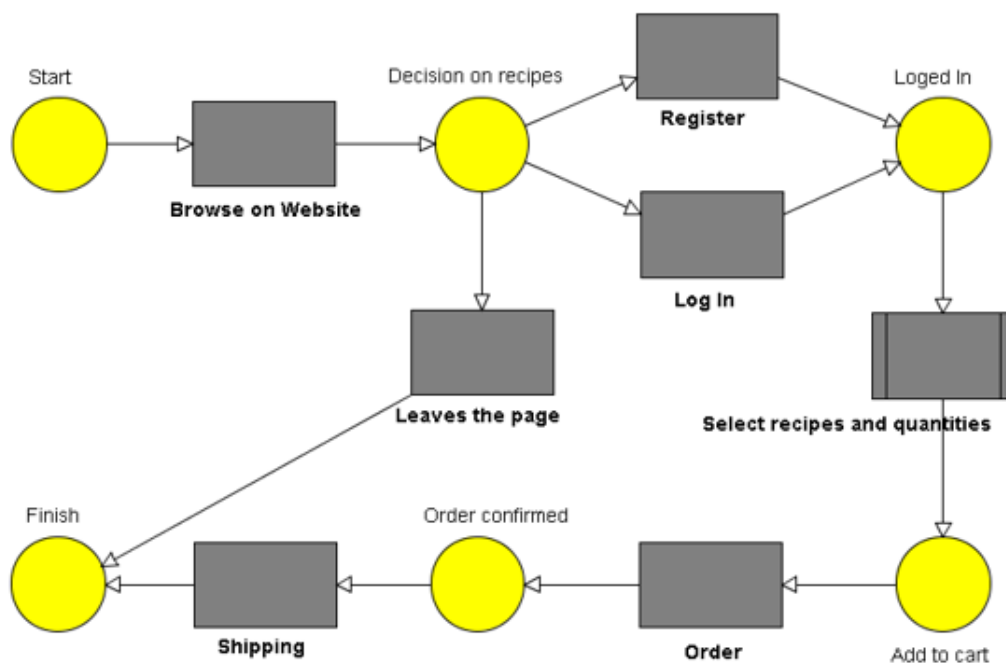


Figure 3: To-Be Model Overview

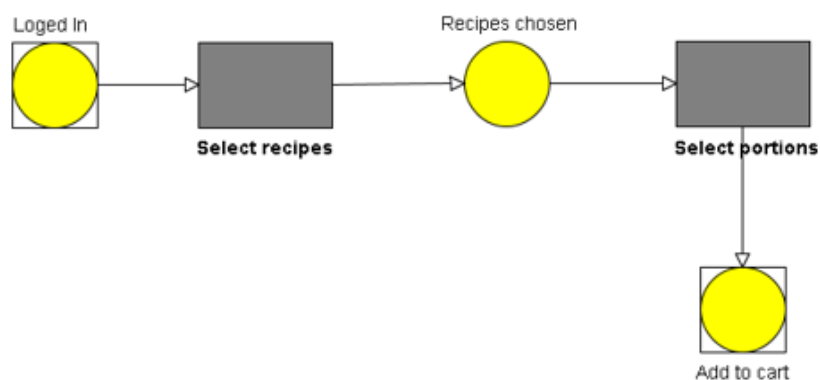


Figure 4: To-Be Model Drill-Down: Select recipes and quantities

2.3 Evaluation of simulation results

The relevant data to evaluate the performance of the improved process in this simulation is the time the customer saves in total from entering the webpage to buy the groceries (they do not need to waste time to go to the supermarket) as well as the yield the selling company makes. This performance measures allow us to evaluate the customers as well as the companies benefit. The results are shown in *Table 1* and *2* as well as in *Diagram 1* and *2*.

Activities	C...	Execution...	Resource...	Value Add...	Times (Hour...
Chooses a store	100	0	0	0	33
Searches items	100	5,000	0	0	100
Checks out	75	0	0	37,500	18.75
Go shop in another store	25	0	0	0	25
Drives home	25	0	0	12,500	8.25
Making shopping list	200	0	0	0	66
Sum	525	5,000	0	50,000	251

Table 1: As-Is Model: Results

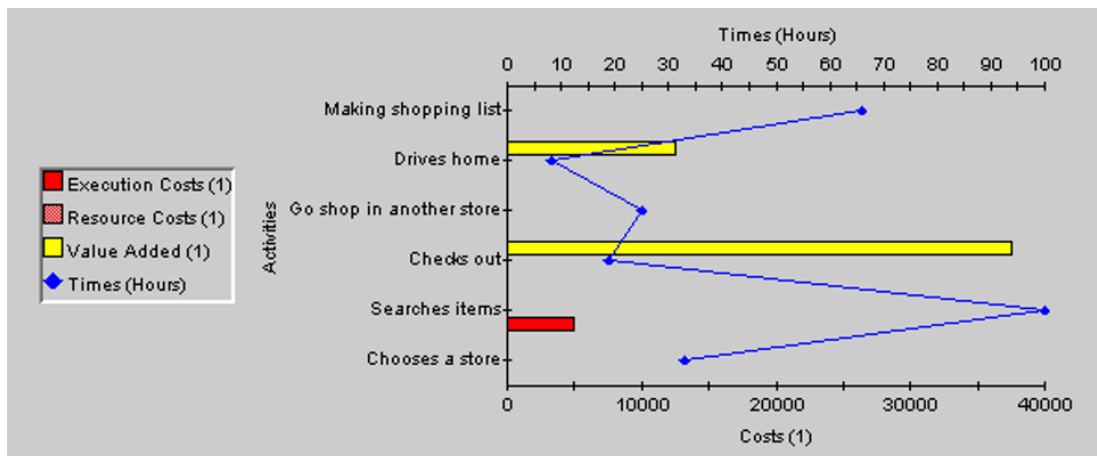


Diagram 1: As-Is Model Graphic Results

Activities	C...	Execution...	Resource...	Value Add...	Times (Hour...
Browse on Website	100	0	0	0	20
Register	33	0	0	0	2.97
Shipping	45	4,500	0	0	135
Order	45	0	0	22,500	3.6
Log In	12	0	0	0	0.24
Leaves the page	55	0	0	0	55
Select recipes and quantities	90	0	0	0	1.8
Sum	380	4,500	0	22,500	218.61

Table 2: To-Be Model: Results

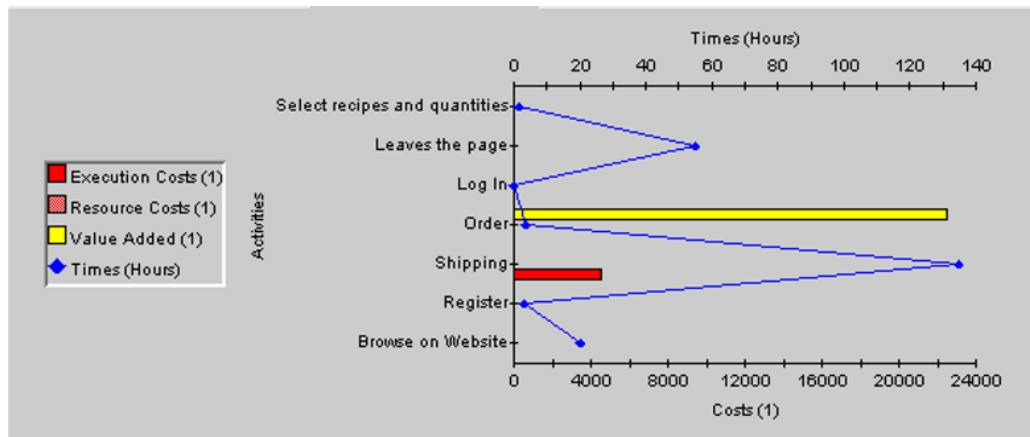


Diagram 2: To-Be Model Graphic Results

The average process time for each customer in the As-Is Model is 2.61 h. In the To-Be Model it is 3,4 h when only considering the customers staying on the page and ordering the product. The longer process time in the new process is due to the time for the delivery process. The difference is that in the As-Is process the customer is active for 2.61 h. In the To-Be process the customers is waiting for the delivery and can accomplish other things in the meantime. Also, the yield for the new process is lower. That is because we were trying to simulate the initialization phase of this new concept. Especially in this phase it is realistic to consider that a significant percentage of the people visiting the webpage will leave it again and stick to the old service, thus the yield is lower.

The focus of this new grocery and recipe service is to make the process of shopping, preparing and cooking as easy and convenient as possible. It is not possible to consider the convenience in an INCOME Model.

3. Hello Yummy – Webpage

3.1 Provided Services – Customer function

The “Hello Yummy” homepage allows the customer to get to know the services provided by “Hello Yummy” and how everything works. The customer can browse through the recipes for the current and the next week. The recipes are categorized in healthy, vegetarian and fast recipes. Depending on the customer’s preferences he can decide which recipes he likes and how often and for how many people he wants to cook a certain recipe. The customer can order the desired recipes online and will receive a comprehensive instruction with the exactly measured amount of the necessary ingrediencies within 4 hours. There is a promotion integrated that if the customer purchases over 599 NTD the delivery is for free.

To use the above described order services the customer needs to be registered. This is directly possible on the webpage. After the customer registered once his data will be saved in the connected database and the next time he just needs to log-in with his personal ID and password.

[The customers has the possibility to change the customer data anytime.](#)

An impression of the website can be found in the appendix.

3.2 Data model (SQL schema)

The data model shown in *Figure 5* introduces all the relevant data and represents the foundation of the website. Via the database connection the displayed data on the website can be changed but also the other way around the database saves data created on the website like the customer data the customer provides in the registration process.

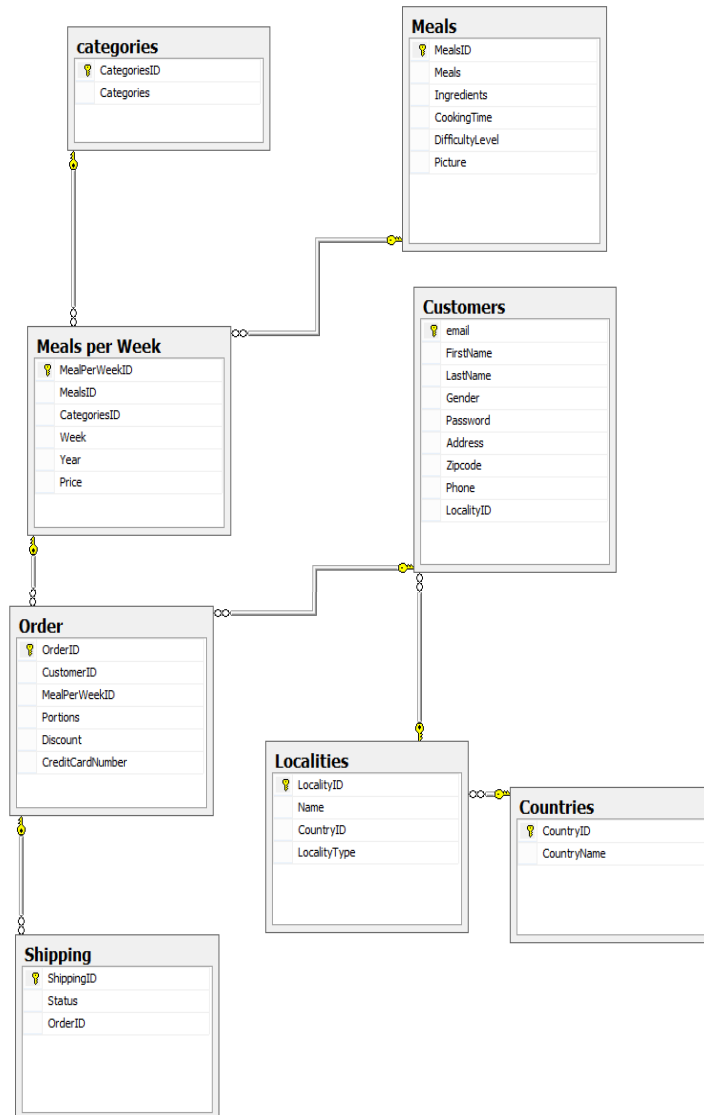


Figure 5: Database Model (SQL schema)

3.3 Manager function

With a special manager ID the manager can log-in into the manager page of the website. The manager page provides two main functions: it shows the current orders and the manager can update product or rather recipe information.

Based on the most popular recipes the manager can develop the next week's recipes. The manager can view and edit customer data in the SQL database. The manager also holds the authority to change the view of the webpage and implement different promotions. An impression of the manager page and its functions can be found in Figure 14 to Figure 17 in the appendix.

4. Conclusion

All in all, "Hello Yummy" seems to be a promising concept although the simulation results do not show a time saving aspect at first sight, but in fact the customer is spending less time being active in the process. It is already mentioned that the main emphasis of this concept is convenience and animation for people to cook for their own health and well-being. The concept therefore will be applicable with a good response because healthy eating is trending.

Of course, the "Hello Yummy" concept will be a little more expensive than getting the same ingredients in the supermarket, but without the recipe and exact measurement service. Especially the exact measurements provide some great advantages. Firstly, it is really easy for the customer and secondly it helps to prevent wasting groceries.

With the "Hello Yummy" website we hope to create a possibility for people to fuel their body fast and easy with the right food and nutrition, so they will feel better in the future. We hope to motivate people to cook and share this experience with family and friends to become healthier.

For the future, we hope to expand the service to a large region, because at the moment a 4-hour delivery only seems reasonable within big cities. We also want to keep the ingredients local and seasonal to benefit the environment.

Concerning the webpage, we want to integrate a promotion that benefits the loyal customers. The more frequently they order the more promotion they will get. Also, the ordering process will be improved to be more convenient. And we want to provide an assistance tool on the page that supports the customers while browsing on the webpage.

References:

INCOME Simulation Software

<https://fonts.googleapis.com/icon?family=Material+Icons>

<https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css>

5. Appendix

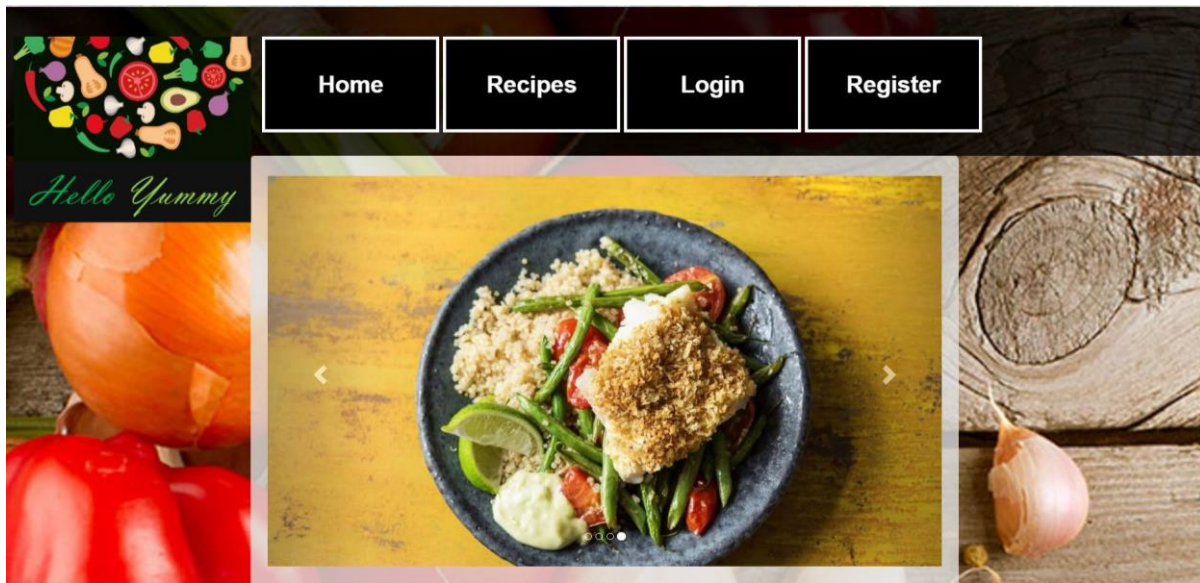


Figure 6: Home screen of the website

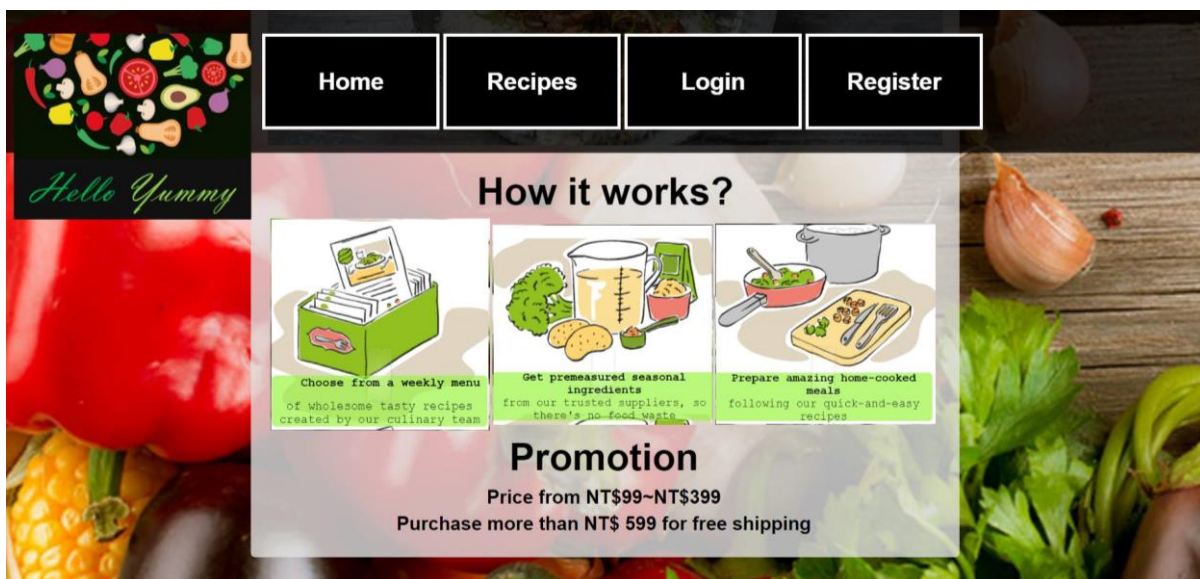


Figure 7: Description of how the service works and current promotion

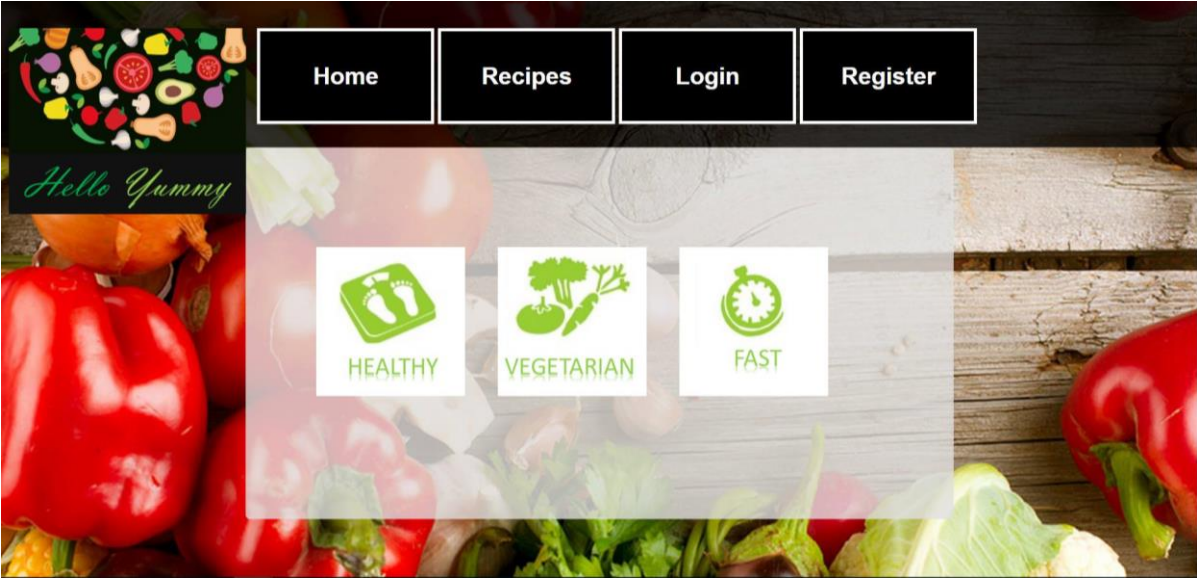


Figure 8: Under recipes the desired category can be chosen

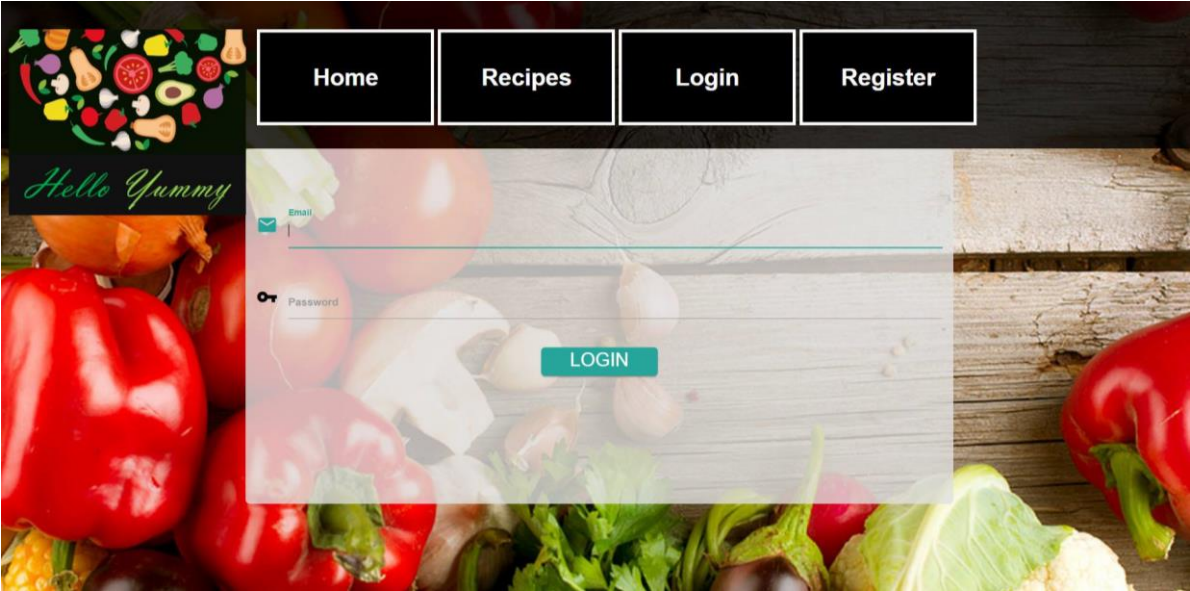


Figure 9: Log-in screen

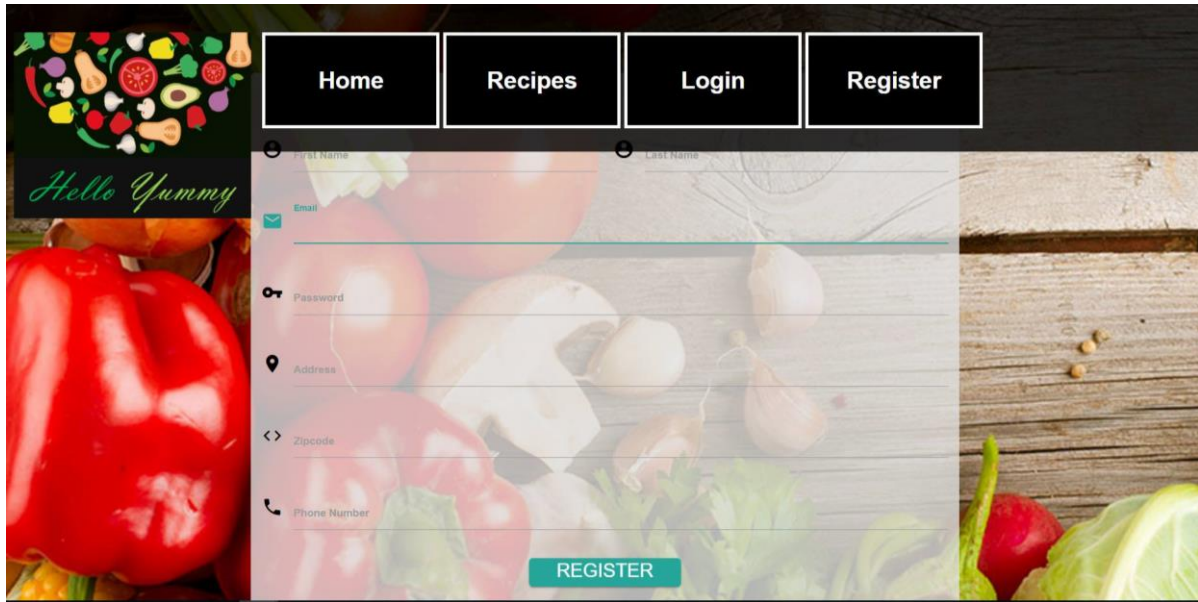


Figure 10: Registration screen

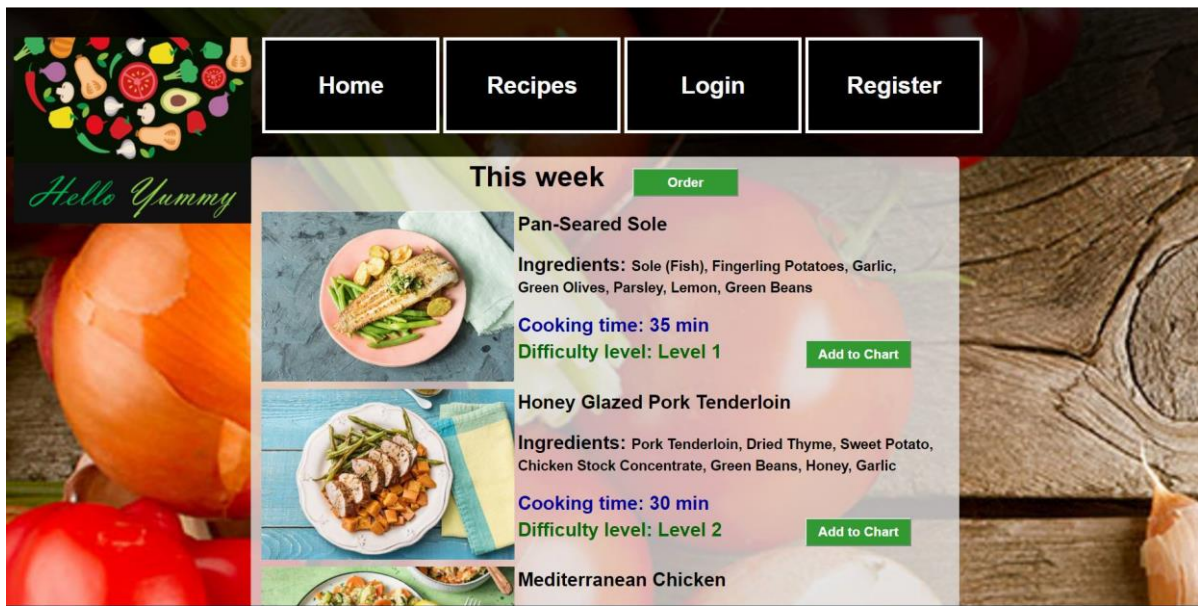


Figure 11: Recipe selection and order page

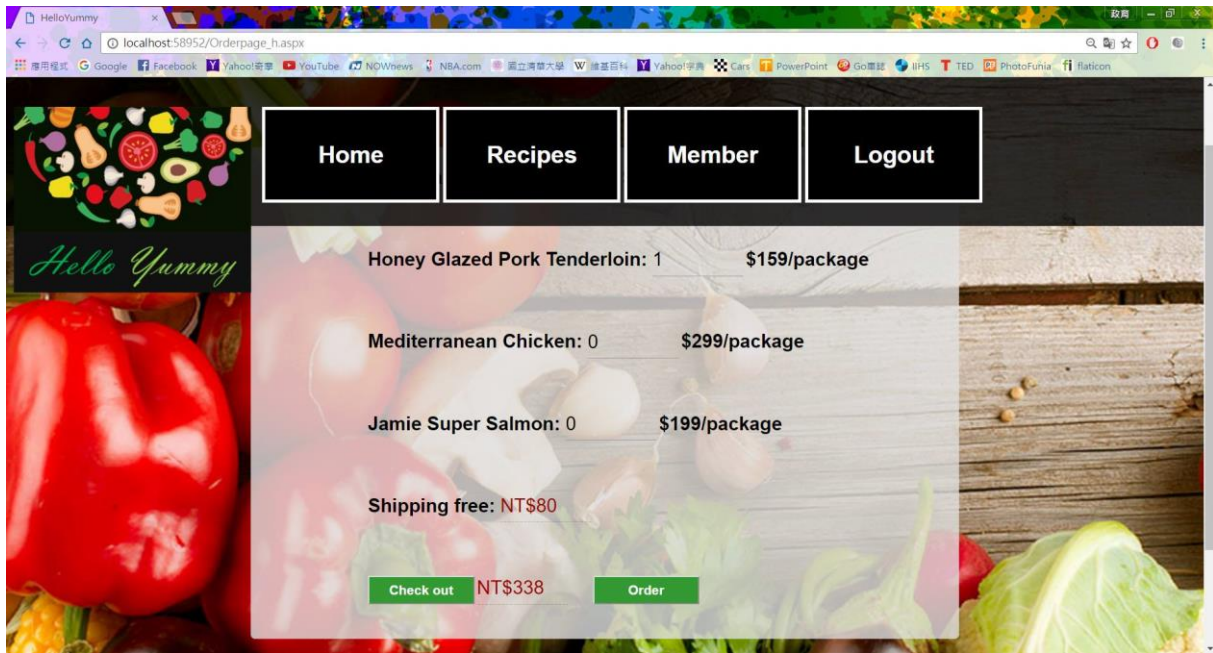


Figure 12: View of the order/check out page (1/2)

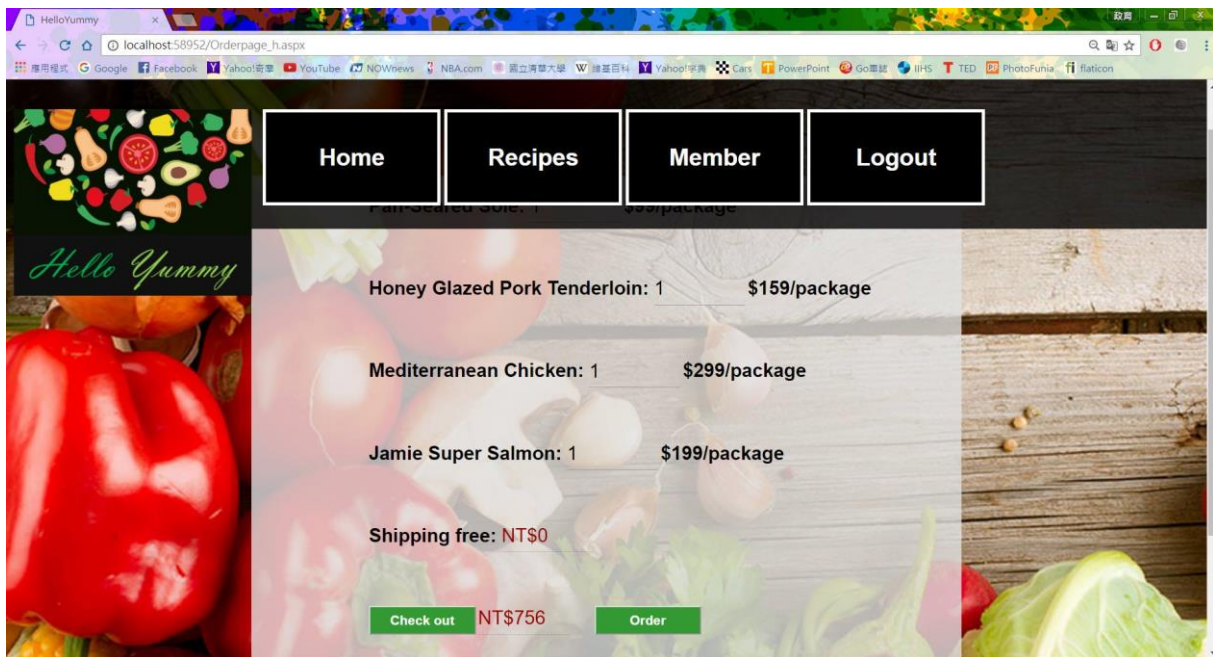


Figure 13: View of the order/check out page (2/2)

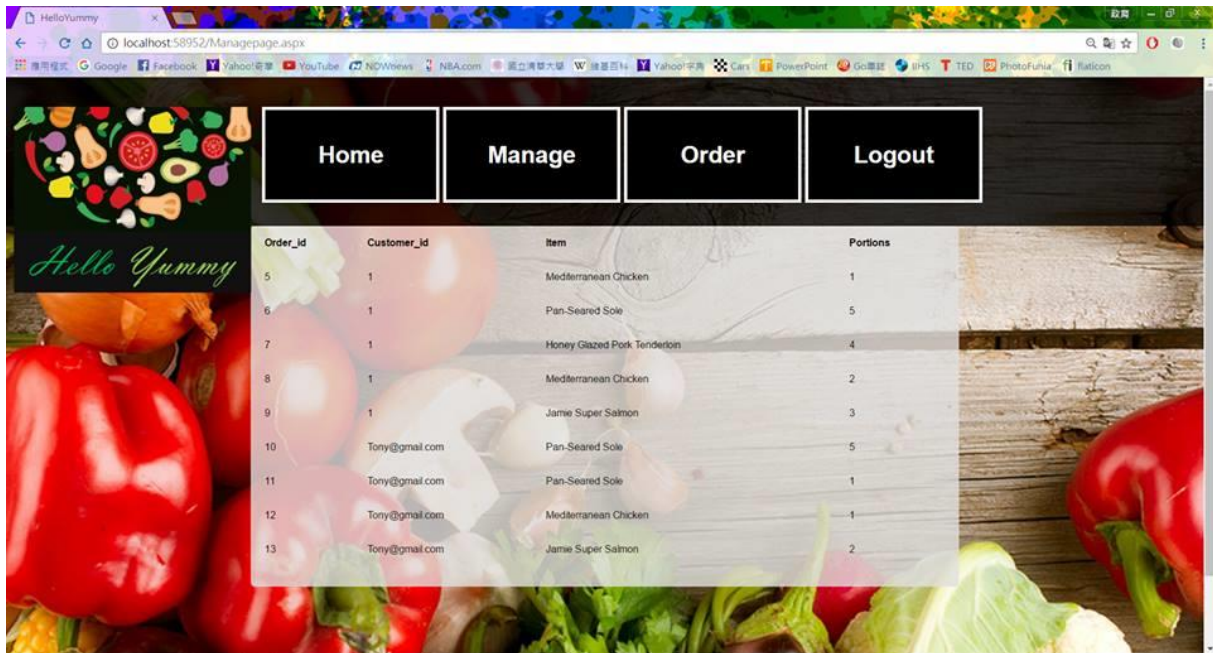


Figure 14: Order summary in the manager view

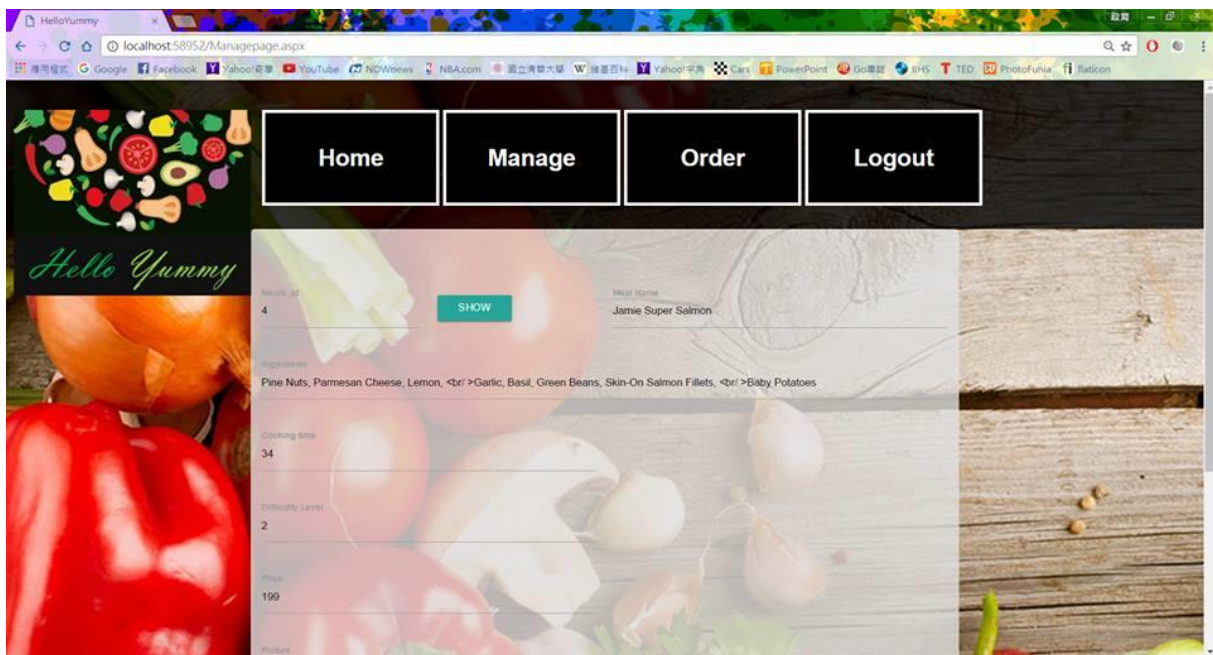


Figure 15: View of the screen where the manager can update the recipes (1/3)

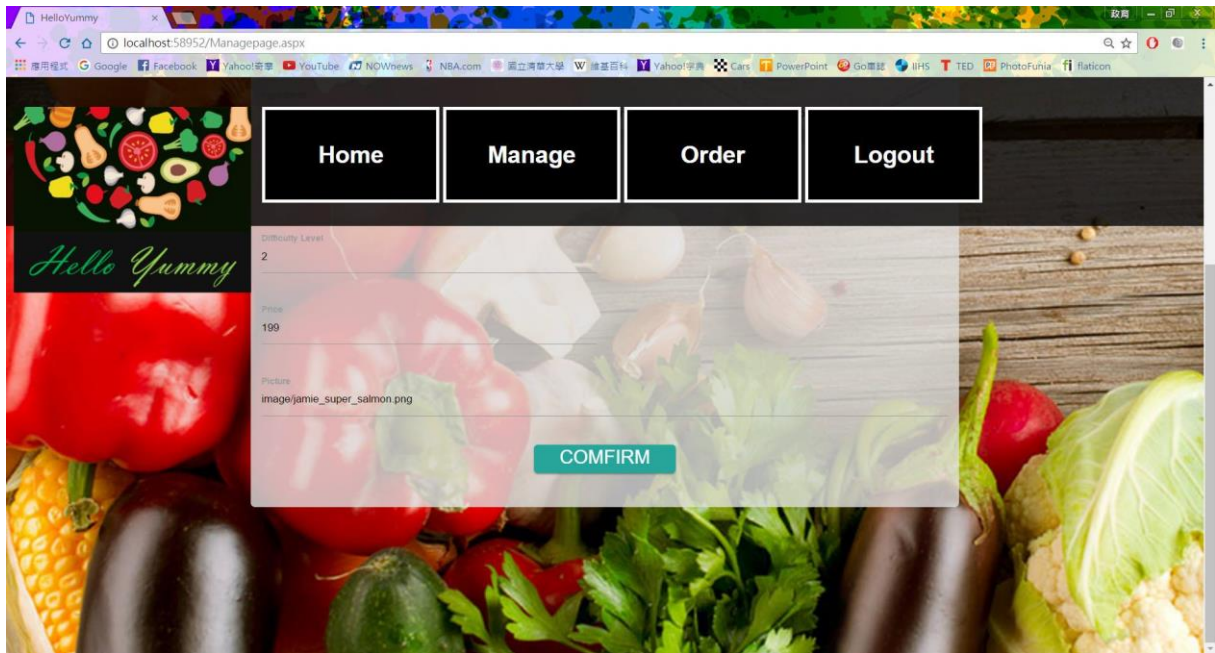


Figure 16:View of the screen where the manager can update the recipes (2/3)

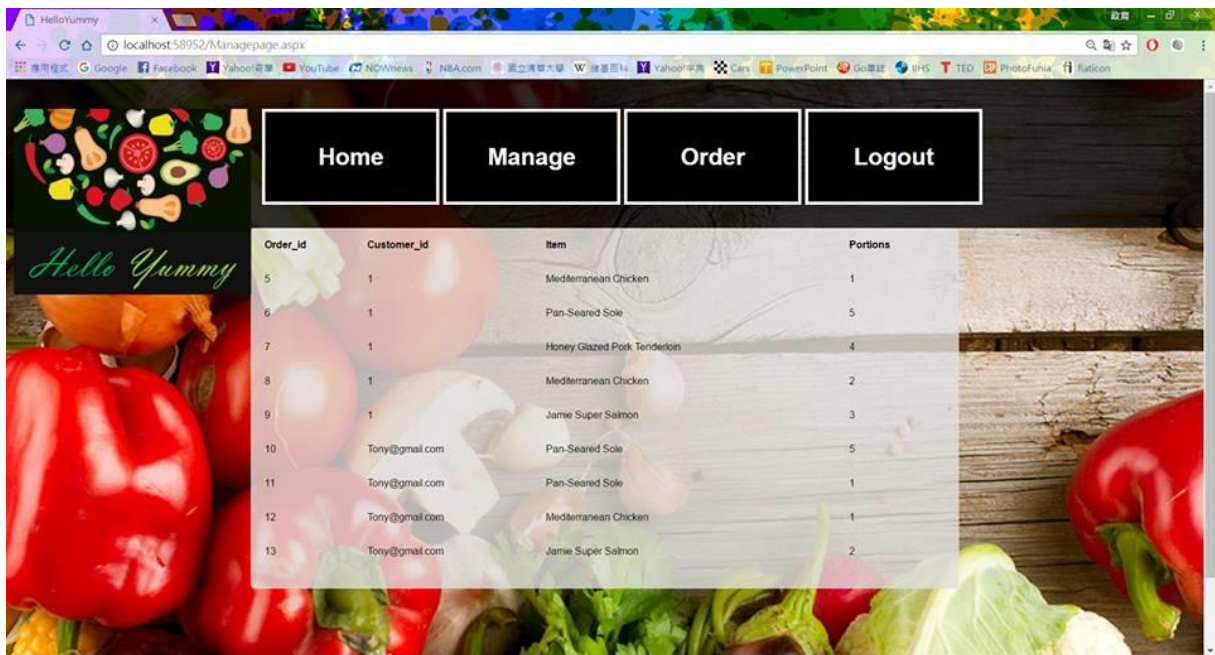


Figure 17:View of the screen where the manager can update the recipes (3/3)