

# Build a website to help customer choose which store to consume

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**Abstract.** Enterprise integration (EI) is a technical field of Enterprise Architecture, which focused on the study of topics such as system interconnection, electronic data interchange, product data exchange and distributed computing environments. It is a concept in Enterprise engineering to provide the right information at the right place and at the right time and thereby enable communication between people, machines and computers and their efficient co-operation and co-ordination. Nowadays, electronic-enterprise integration (EEI) appear and it plays an important role in the company. So this project focuses on enterprise integration issue and use some application program to solve the problem we usually have met, choosing what to eat in the dining time. In this project, first I will quote some cases to briefly describe the problem. Then I will use current software to solve the problem, and finally reach my conclusion.

**Keywords.** Income, SQL, Web, Electronic-enterprise integration (EEI)

## 1. Problem definition:

Because Taiwan is a densely populated place, regardless of diet, clothing, living, transportation, education, entertainment, are in this little place. Especially, the diet is the most important thing in our life. So, most of Taiwanese people also focus on eating, and spend much time to think what to eat. Most of the time, we can see the following situation when we choose what to eat.

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(Figure1- A scene of so many selections in the night market)

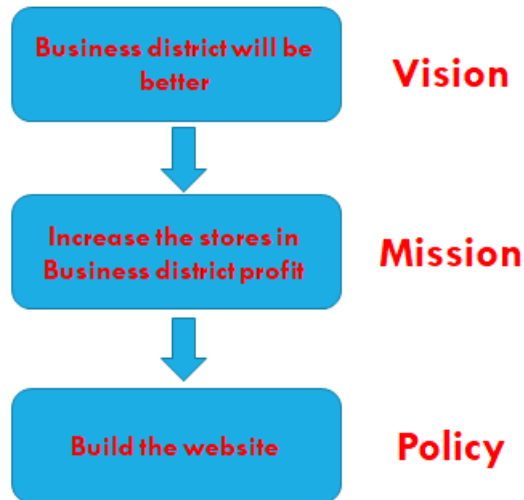
It is very annoying thing when we think what to eat in the dining time. The stores are so numerous. We always take time to think about which store to consume, leading to waste of time unconsciously. If you decide what to eat with a group of people, you can't even confirm what to eat quickly.

In recent process, it is inevitable because there are two main problems. One is there are too many stores, the customer have too many choices. This problem is very hard to solve because we can't determine whether the store is open. And the other problem is selective disorders. The customer take more time to think what to eat. It will increase the total time of eating process and let the process slow down. In this project, I will focus on the second problem by using electronic-enterprise integration concept.

## 2. How to solve problem

### 2-1 Research Motivation

In order to make business district be better. And decrease the time of choosing which stores to eat. I construct a website to offer customer to decide what to eat in the dining time. When they are annoyed about choosing which store to consume, they can use my website instead of thinking what to eat by themselves. The store managers can apply to join member of the website, the store will become an option in the website. If the customer use the website, these store may be selected. And then increase rate of being patronized. The customer also decrease the time of thinking which stores to eat.



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1. Who: With the website, customers and stores can increase the interaction. Thereby increasing the probability of customer consuming in the store.
2. What: Due to the variety of shops now selling food, whenever you want to eat something, customer always hesitated for a long time to choose which store to eat for lunch and dinner, especially those with selective barriers. With this website, customers can choose the options of stores on the site, customers can save the time of thinking which store to eat.
3. Where: Website design for the regional business district, providing office workers around the circle of services, students to enhance consumer opportunities in this area, and finally to promote the prosperity of the ultimate goal.
4. When: Choosing what to eat before eating is always one of the most difficult problems most people face each day, especially when eating together with a group of people, but hesitant to use this site to quickly choose what to eat.
5. Why: Why consumers will choose to use this website? Because the store has not only given more favorable feedback to consumers who use the website, all the stores that join the website must provide more discounts to consumers who use the website, but also attracted consumers who have not used the website to use the website. And then achieve the effect we want.
6. How: Website has randomly selected store information features, so that consumers can use random properties to choose their favorite store. If you don't like the option of store, you can continue to use the random function to choose another store.

## 2-2 Research method:

In this project, I will use three application program to build models and construct a website:

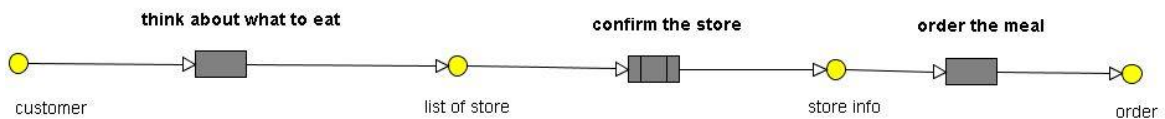
- Income : build As-is model, To-be model, Organization model, Object model
- mySQL : build ER model and Database
- PHP programming language : construct a website

Last I will compared with As-is model and To-be model, and make a conclusion for my project.

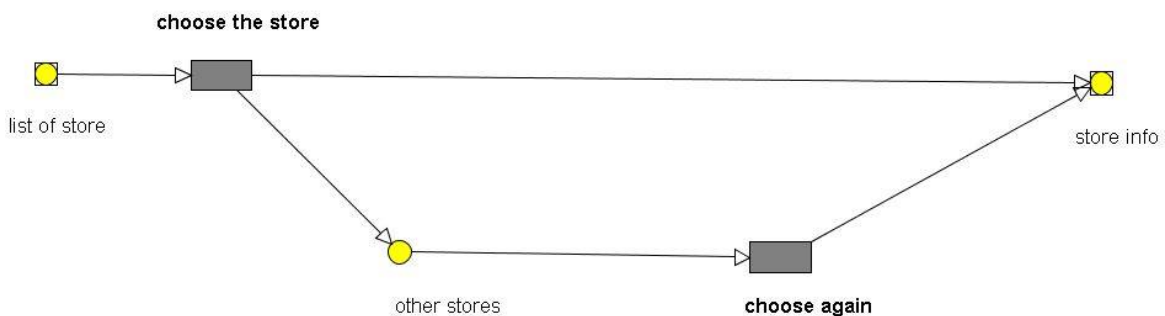
## 3. Modeling

### 3-1 As-is model:

In as-is model, you can see the whole process that choosing which stores to consume. First, customers think which stores to consume. This process may be a group of people to discuss, leading to take much time. And then, customer decide a store. Sometimes some people may be choose again. Finally, they go to the store to consume.



(Figure2- As-is model)



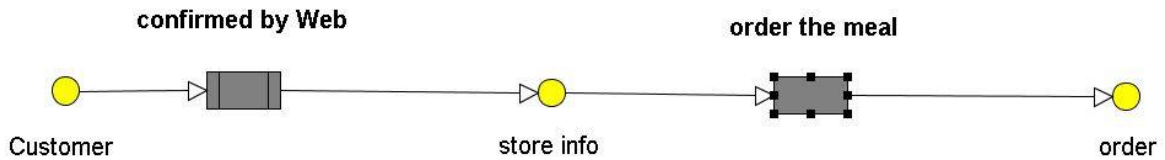
(Figure3- Drill down "confirm the store")

### 3-2 To-be model:

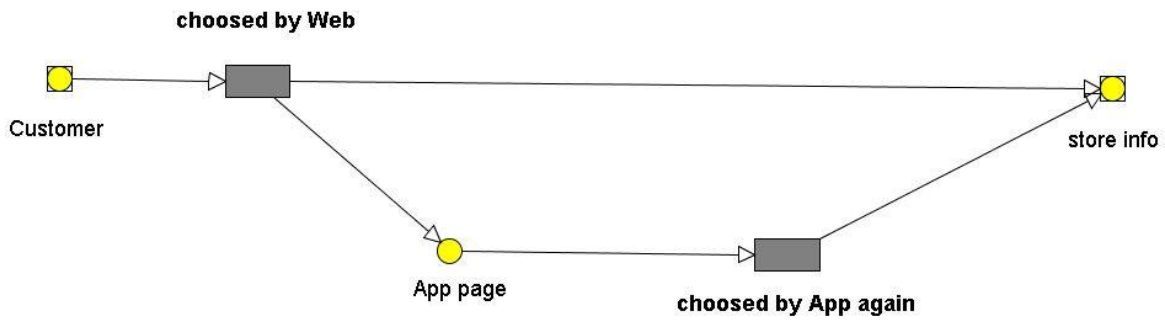
Because of the problem, I build a website to solve the annoying thinking process. Customers can confirm what to eat on the Internet. So in to-be model, we just need to use the website and website will help customer to confirm which stores to consume.

In this website, we confirm which stores to consume by website, so I drill down this process to show the procedure. First we need to go to website, and start up the

function in the main page. The website will choose one store for the customer. After choosing by website, part of customers may be unsatisfied. So, they can use this function again. Finally, customer will gain the store information and store coupon in the website. But before using the website, we need to find the store want to join this website. Otherwise, website will not offer the store information for customers.



(Figure4- To-be model)



(Figure5- Drill down "confirm by web")

### 3-3 Organization model

In Organization model, this figure shows a simple relationship about the departments. We are manager and have management department at the top. Manager also have to make decisions and take responsibility.

The maintenance department have to develop more useful functions and protect this website form crashing. It also have to keep improving the current application and fix problems in the website.



(Figure6- Organization model)

### 3-3 DataBase

The database is constructed by MySQL software.

(Table1-Database)

Table	Description
Store	id, account, password
Store information	id, phone, address, menu, coupon
Store detail	id, detail information

### 4. Website Demo:

Now I will demo the website to show advantages in to-be model. And take the Tsing Hua night market as an example.

This is start page. When the customer can't decide which stores to consume, they can use this website to help them find a store. First, we can press the button. And website show the store information on the screen. The store information have store name, store address, store phone number, store menu and store coupon. The customer can choose the best store immediately, and also find the coupon they want.



(Figure7- Start page-1)



(Figure8- Start page-2)

The store managers need to login first. If the store managers don't have account, they

need to register.



商店登入

店家名稱：

店家密碼：

[商家註冊](#) [回首頁](#)

(Figure9- Login page)

And this page is register function. If the store managers want to be chosen by website users, they must register the member of the website. And the store managers offer the coupon for the customer. The stores can increase the rate of being patronized.





(Figure10- Register page)

This is the update page. The store managers can usually update their coupon information. Make more customers go to their store.



(Figure11-Update page)

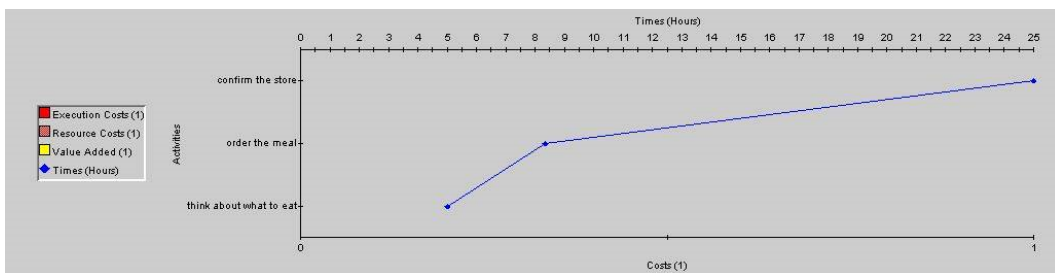
## 5. Improvement

According to the data from running Income software. We can understand if we

think which stores to consume by themselves, the average time is 3 minutes ( $5 \times 60 / 100$ ). But if we use the website to help us to decide which stores to consume, the average time is 1 minute ( $3.333 \times 60 / 200$ ). Unless the reduction of the average time, more importantly, the mood is getting better. We don't need to bother which store to choose, everything to the website.

As-Is: Overview	As-Is: Chart	confirm the store: Overview	confirm the store: Chart	Resources	Resources Chart
Activities	Count	Execution Costs (t)	Resource Costs (t)	Value Added (t)	Times (Hours)
think about what to eat	100	0	0	0	5
order the meal	100	0	0	0	8.333
confirm the store	200	0	0	0	25
<b>Sum</b>	<b>400</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>38.333</b>

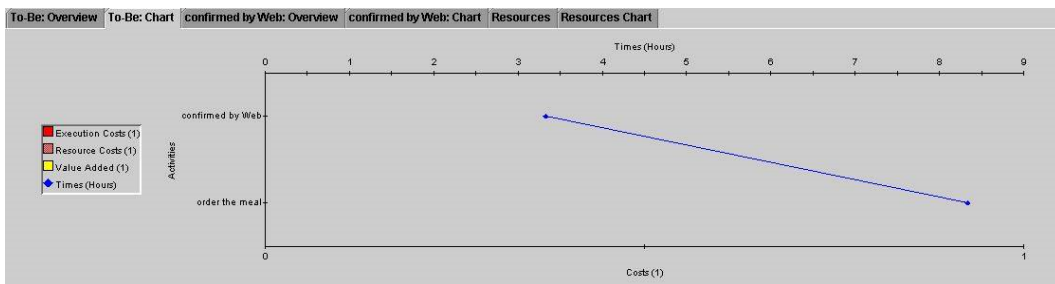
(Figure12-As-is simulation)



(Figure13-As-is simulation chart)

To-Be: Overview	To-Be: Chart	confirmed by Web: Overview	confirmed by Web: Chart	Resources	Resources Chart
Activities	Count	Execution Costs (t)	Resource Costs (t)	Value Added (t)	Times (Hours)
order the meal	100	0	0	0	8.333
confirmed by Web	200	0	0	0	3.333
<b>Sum</b>	<b>300</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11.667</b>

(Figure14-To-be simulation)



(Figure15-To-be simulation chart)

(Table2- Improvement of this project)

Model	As-is model	To-be model
Way to choose	customers themselves	Confirm by website function
Average Time	3 minutes	1 minute
Mood	Annoying	Convenient

## 6. Conclusion

In this project, helping customer choose which stores to consume, I analyze two process of choosing the stores. First I construct as-is model and to-be model to overview the whole process. By using Income to construct the model, we can clearly see the global view of this process. For achieving solving this problem, I need to build a website to improve the process. I use mySQL to build the ER model and database. I also use PHP to really construct a website. The website need the store managers to join the member of website, and they can become the one of the selections in the website. But the store managers offer their store's coupon for the customers. And then, increase the rate of being patronized. It's a win-win situation.

## **7. Future Perspectives**

I think by means of it, my website can help people achieve the desired effect. If I want to develop this project bigger. First, I need to do something to attract more store managers join the member of website. And add more kinds like drinks, dessert, supper and so on. To attract more customers to use this website. Finally, we can compound different store's coupon. To reach the best profit. So, I believe the electronic-enterprise integration is the trend of future.

### **Reference:**

1. Wiki. [Online]. Available: [https://en.wikipedia.org/wiki/Enterprise\\_integration](https://en.wikipedia.org/wiki/Enterprise_integration)
2. Wiki. [Online]. Available: <https://zh.wikipedia.org/wiki/%E6%95%B4%E5%90%88%E8%90%A5%E9%94%80>