

1. Scenario

Online shopping is being popular now a days. It's a convenient way to get what we need without going outside. However, one of the shortcomings is we usually have to spend long time to find out what we need especially in an integrated shop (it means we can find products belong to different brands there) because of lots of different products there.

As a result, we create an online cosmetic shop called "Light up your face". It's an online shop includes different brands' products. To shorten the searching time, we set a filter. Customers could use it to search the product they really interesting.

This function would help customers find their product and increase the satisfaction.

Furthermore, we set three types of promotion which could also increase the satisfaction. They're "up to 1500 get 100 discount", "20% off with coupon code", "up to 1000 shipping free".

Due to these improvement, we can both increase customers' satisfaction and sales volume.

2. Income

- Model

We use income model to simulate the time that customers spend on the online shop without filter and this redesigned online shopping store.

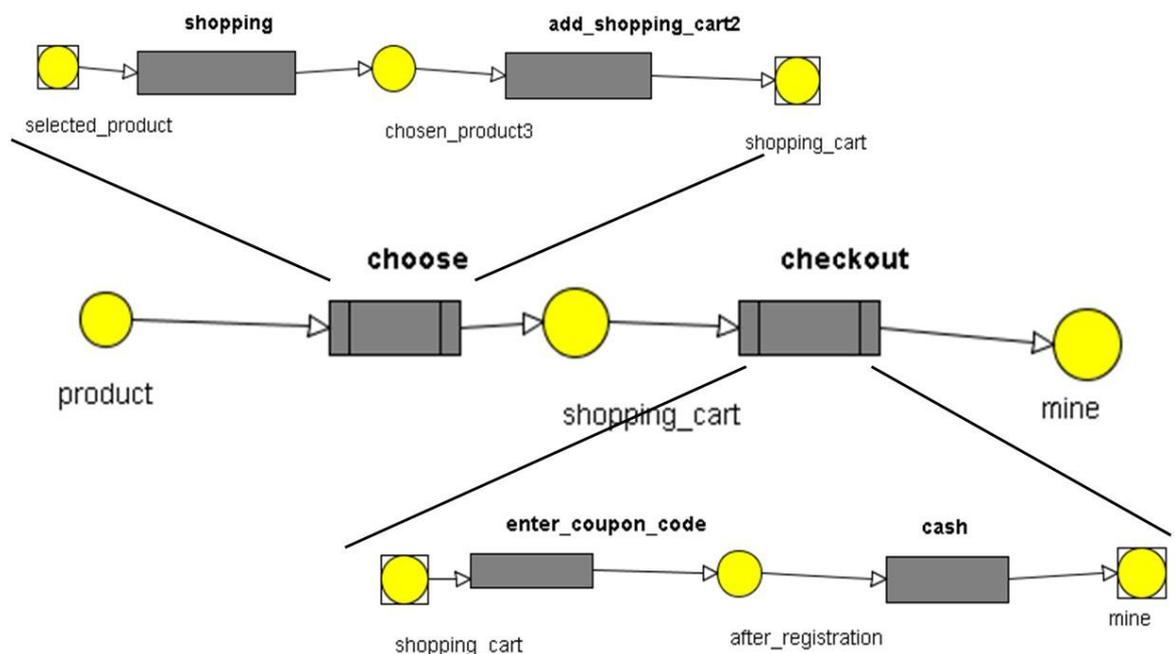


Figure.1

As the Figure.1, Customers would spend lots of time on "shopping". After selecting the products they are interested, they will enter to checkout procedure.

Then they could enter the coupon code to get some discount.

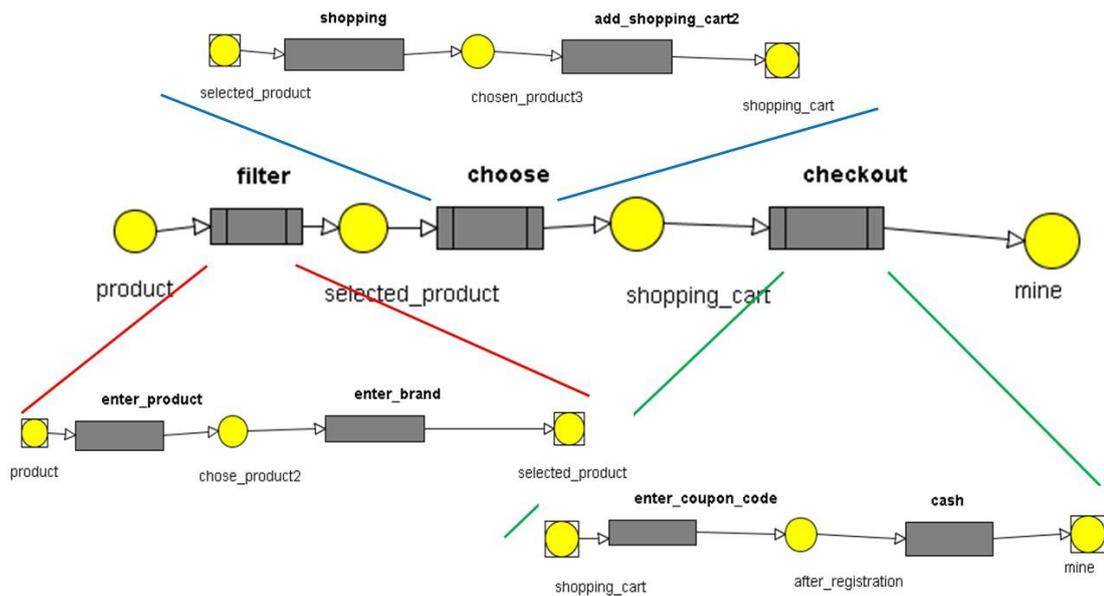


Figure.2

As the figure.2, in this online shop, the customers would enter the condition first. (The product and brand they prefer) Then they could spend less time on “shopping”. Then in the checkout status, they would do the same process as ASIS model.

● Parameters (Time)

As the table one, we assume the customers would spend 20 mins to select the product they want as usual. On the other hand, we assume customers would spend 20 secs on enter the filter, then they just need 15 mins to find the product.

	ASIS	TOBE
Shopping	1200s	900s
Filter	0s	20s
Checkout	70s	70s

Table.1

● Results

<u>ASIS</u>	Count	Times(Hours)
Choose	40	13.444
Checkout	40	1.444
Sum	80	14.889

<u>TOBE</u>	Count	Times(Hours)
filter	40	0.222
Choose	40	10.111
Checkout	40	0.778
Sum	120	11.111

As the tables above, due to apply the filter procedure, we could reduce more than 3.5hours that customers spend on searching their products on this online shop.

3. ER-model

Our database schema contains 6 tables, including Customer, Product, Employee, Department, orderlist and orderitem as the following figure .

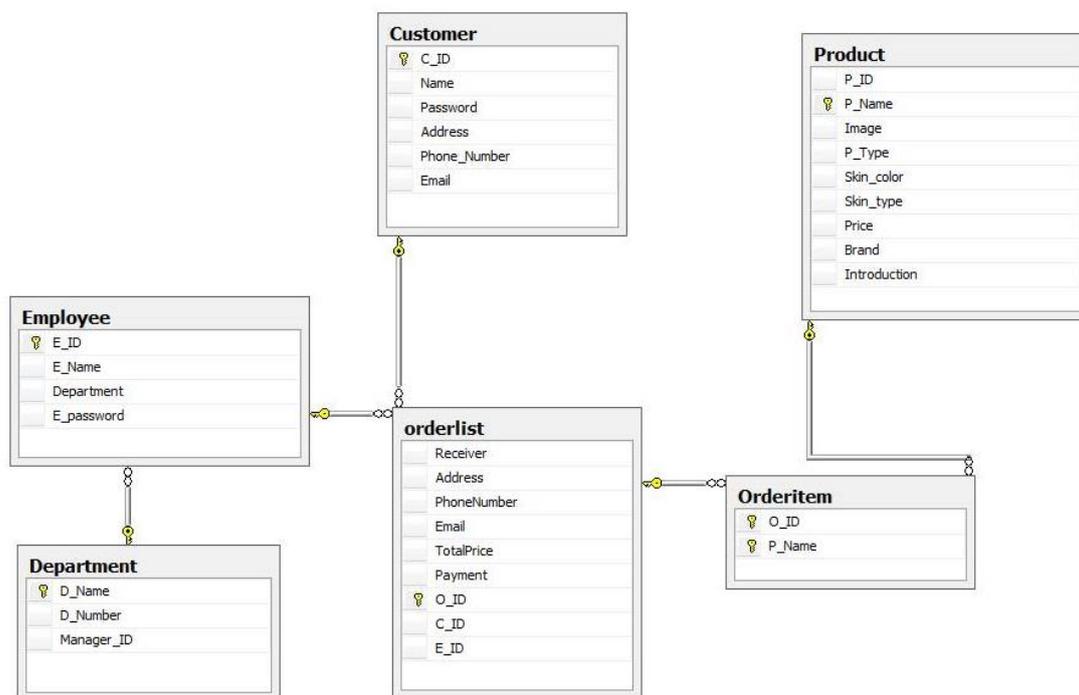


Figure 3

Product table consists every necessary product information. Customer table contains customer information that they give when they registered. Orderlist table link to Customer by C_ID and link to Employee by E_ID. Orderitem table link to orderlist table by O_ID and link to Product table by P_Name. By the Orderitem table, we can help the database to improve the efficiency. In Employee table, Department connect to Department table by D_name.

Besides, in our database, we can simply distinguish internal and external data. Internal data include Employee, Department, Product and Orderitem tables; External data include Customer, and orderlist tables. Moreover, we use orderlist tables to integrate the internal and external data. By these tables' linkage between one another, we can management the system more easily.

4. Web

(1) Home page

First, entering the website, we can see our online shopping store logo “Light Up Your Face” as the figure 4. When customers click the logo, they will transfer to product list page. Moreover, customers and manager both can click the login button to connect to login page.

Home

Register

Login

Logout



Figure 4. Home Page

(2) Login page

In login page as the figure 5, customers and manager (including staff) can login, but customers will transfer to product list page which they can begin shopping, and manager will transfer to manage product page.

For customers, if they visit this website at the first time, they can click the register button to access a new account.

[Home](#) [Register](#) [Login](#) [Logout](#)



Login

Account

Password

Figure 5. Login Page

For Customers:

(3) Register page

In this Page as the figure 6, customers can fill in their personal information, and they can click the check button to check if the account they create is available. After they submit their information, all data will insert to the database.

[Home](#) [Register](#) [Login](#) [Logout](#)



Member Registration

Account

Name

Password

Address

Phone Number

E-mail

Figure 6. Register Page

(4) Product List page

In product list page as the figure 7, customer can select the items according their preference. For example, product type, skin color, skin type, and brand. Also, when they click the add to cart button, these items will add to shopping cart and show at the bottom as the figure 8. In addition, customers can delete these items from shopping cart if they don't want to buy.

If they decide to buy those items, they can click the checkout button, they will transfer to the checkout page.

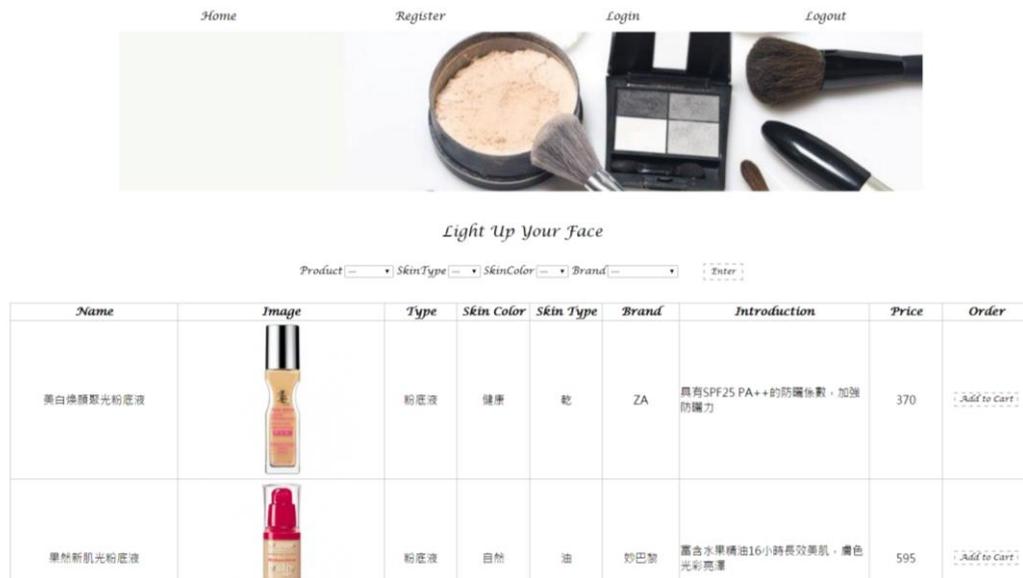


Figure 7. Product List Page

時尚3D立體雙眉彩盤		眉彩	健康	混合	maybelline	質地一「雙」能針對眉毛毛流做專業造型，質地二「粉」則能同時存到眉彩上色與自然髮影，讓妳一盪輕點打掃宛若混血般的3D立體深邃輪廓！	320	Add to Cart
造型眉彩餅		眉彩	自然	混合	kate	濃~淡3色配合的眉彩餅，在眉毛、鼻樑處能創造出自然的陰影，立體雙眸立即展現。	330	Add to Cart
旋轉眉筆		眉彩	白皙	混合	za	暢銷多年的Za超人氣明星商品旋轉眉筆進化，解決一般眉筆筆芯較硬，難以上色的缺點，以獨特配方將色彩及油質均勻包裹，觸感更柔軟，不需任何技巧，就能輕鬆描繪自然出色眉型。	180	Add to Cart

My Shopping Cart

Name	Brand	Skin Type	Skin Color	Price	Delete
含水防曬保湿水凝乳SPF50+/PA+++	Biore 蜜妮	乾	自然	290	Delete

Figure 8. Shopping Cart

(5) Checkout page

In checkout page as figure 9, customers will fill in the receiver's information and choose the payment. Furthermore, customers can click the show price button, it will show the order's total price. After they submit the order, all data will insert to the database.



Light Up Your Face

Receiver

Address

PhoneNumber

Email

Payment

Name	Brand	SkinType	SkinColor	Price	Delete
旋轉眉筆	za	混合	白膏	180	<input type="button" value="Delete"/>

Coupon Code:

Shipping Fee: 60 (Up to \$1000, Shippment for Free!)

Up to \$1500, Get \$100 discount!

TotalPrice:

Figure 9. Checkout page

On the other hand, we provide three promotion programs.

(a) Coupon code

If customers enter the coupon code: 2016EEI and click the show price button, then they will get 20% off which means total price will multiply 0.8.

(b) Shipping fee

First, every order's shipping fee is \$60, and if customers buy these items up to \$1000, they don't need to pay the shipping fee.

(c) Discount

If customers buy these items up to \$1500, then they can get the \$100 discount.

For Manager:

(6) Manage Product page

In this page, as Figure 10, manager through the staff login page can transfer to the product page directly. Manager can delete the items and if they want to add new item or edit item, they can click the add item or the edit item button. At the same time, all information will update to the database.

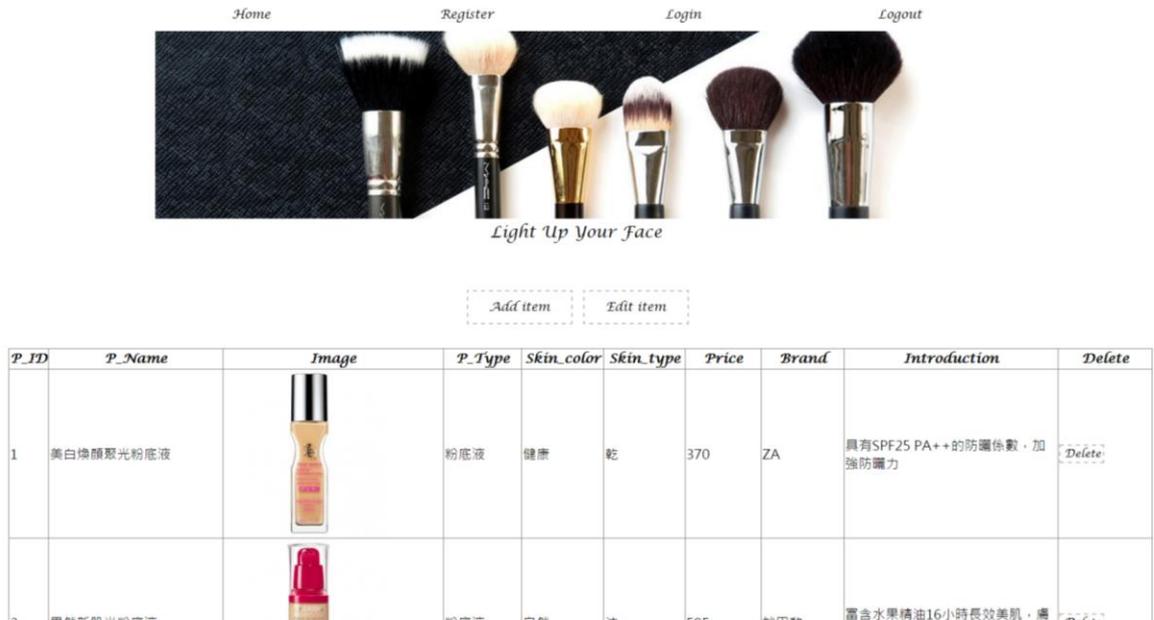


Figure 10. Manager Product page

(7) Add Product page

In add product page, manager can add new items and fill in the information. After they submit, a new product will insert to the database.

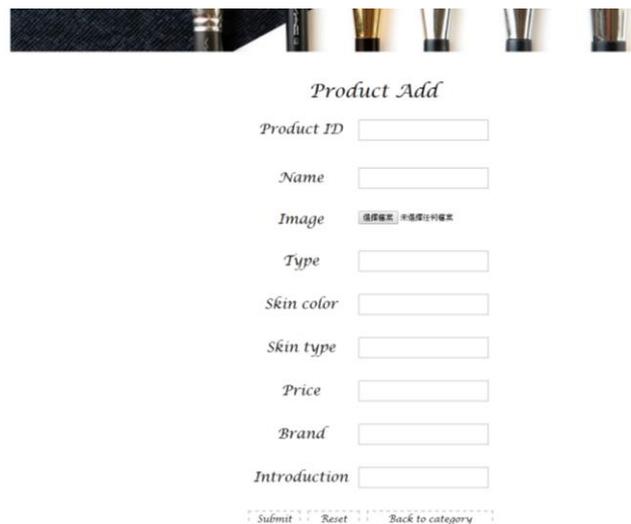
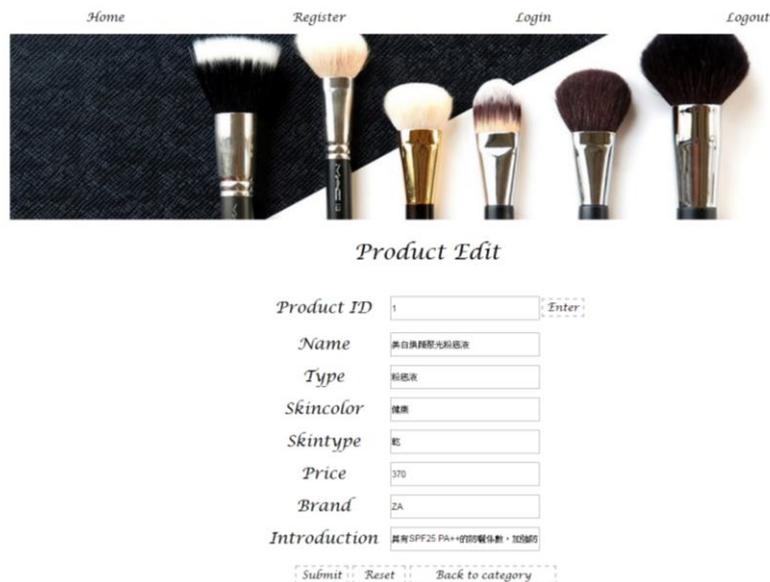


Figure 11. Add Product page

(8) Edit Product page

In this page, manager can edit the product which they want to. When manager input the Product ID and click the enter button, all information will fill in the textbox automatically. As a result, manager can update any information, and after submitting, all data will update to the database.



Home Register Login Logout

Product Edit

Product ID

Name

Type

Skin color

Skin type

Price

Brand

Introduction

Figure 12. Edit Product page

5. Further Improvement

According to our online shopping Website, we can add more function in the future. For examples, we can “tailor-made” more pages for our VIP member. They can show special price in their pages. Also, we can filter more information that we can help customer to find the product they want more quickly. Also, we can classify our products into more category, for example: sweet, cool, city woman styles, so that the customer can find the style they like quickly. Furthermore, we can track the customer’s browsing record that have been recorded in database and recommend the product that they may like, so that we can have better promotion by link this information together in database.