

# **CN Lab Final Project Report:**

## **MedSupplies**

汪廷妍 B04902062

曾彬輝 B05902099

柯燕玲 B06902086

李恩慈 B06902098

林貞 B06902099

劉益瑋 B06902100

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# **1. Background**

## a. What is MedSupplies?

MedSupplies is a platform for donating and exchanging medical supplies, such as masks and hand sanitizers according to the user's needs. The target users for the MedSupplies website are ordinary people who are in need of medical supplies.

## b. Why do we want to build MedSupplies?

During this current global pandemic, medical supplies are one of the most sought items. MedSupplies can help people who have extra medical supplies to send their medical supplies directly to other people who need them - without needing to leave their house. Their lives (and our lives) depend on it. Many people are forced to go without wearing masks due to the lack of supply. Each day, the headlines remind us of the desperate shortage of medical supplies to fight the pandemic. While healthcare, policy, and business leaders race to address these urgent needs, at the same time, supply chains throughout the world have been disrupted as factories remain shuttered or shift their production to coronavirus supplies. We must act now to head off a healthcare supply shortage that could be even broader and deeper than the one that we are currently facing.

## c. What are the uses of MedSupplies in real-life?

In real life, MedSupplies help people who are in emergency needs for medical supplies to help other people. You can choose to donate or to exchange if you have some spare items that you want to change with another item that you urgently need. By providing easy-to-use user interface and the necessary system notification, MedSupplies acts as an intermediary bridge to facilitate this event. Moreover, all of the users can access the platform for free. In conclusion, we hope that by creating MedSupplies, the platform could provide help to people who are in need of medical supplies during this pandemic.

## **2. Project**

### **a. Tools Used**

- i. HTML
- ii. MYSQL
- iii. PHP
- iv. Appserv

### **b. Features**

#### **i. Login/Register**

Required information when registering:

- ✓ Full name
- ✓ Identification (ID) number
- ✓ Phone number
- ✓ E-mail
- ✓ Address

Information that will be shown (public):

- ✓ Name
- ✓ Current city
- ✓ Deal (Donate/Exchange) records

#### **ii. Donate function**

##### **✓ Donatable items:**

- Normal medical mask
- N95 mask
- Sanitizers
- Chloride
- Digital Infrared Thermometer

- ✓ Donors/Recipients can log on to the website and register/find the materials and amount they want to donate/receive.

- ✓ Donors/Recipients can find suitable recipients/donors on their website and apply to contact the person.

The website will send a letter to notify, and if the other party agrees, it will send their contact information (Name / Mobile Phone / Email)

**Example:** A (recipient) finds on the website that B(donor) has supplies that meet his/her needs, then A applies for receiving B's supplies (similar to store order function)

### iii. Exchange function

- ✓ Exchangeable materials:

1. Normal medical masks
2. N95 masks
3. Sanitizers
4. Chloride
5. Digital Infrared Thermometer

Amount of masks that could be exchanged: 5~25 (in multiple of 5, ex: 5, 10, 15, ..., 25)

Other than masks, the maximum amount that could be exchanged: 10

- ✓ Registered users can fill in items that they want and that they could provide on the site.
- ✓ The search engine comes with drop-down options utility.

**Options priority:** Amount -> City -> Items similarity

**Example scenario:** A provides 5 sanitizers, A needs 10 masks. B provides 15 masks, B needs 5 sanitizers. C provides 10 masks, C needs 5 sanitizers. D provides 10 masks, D needs 5 sanitizers. E provides 5 masks, E needs 3 sanitizers. Result: D -> C -> B -> E

- ✓ Users are able to search for another user that they want to exchange goods with.
- ✓ Users are able to tick the option box "exchangeable amount of items have to be the same as what user can provide/ need"

**Example scenario:** A provides 10 masks, A needs 5 sanitizers. A tick in the options box of an exchangeable amount has to be the same as the amount of what she needs, which is 5 sanitizers. The system will then prioritize users that have 5 bottles of sanitizers first, then masks  $\leq 10$  later.

iv. Rating function

- ✓ After any transaction of exchange/donation, the transaction record will appear in the personal account page.
- ✓ The user will be able to do the rating function in the transaction record.
- ✓ The exchange can be rated by both parties, and the recipient can be rated by the donor.

c. Implementation and Results

Differences from the original model

The functions that actually were implemented

Login/register:

加入會員	
身分證字號(帳號)	<input type="text"/>
密碼	<input type="password"/>
姓名	<input type="text"/>
住址	臺北市 ▼ <input type="text"/>
手機	<input type="text"/>
E-MAIL	<input type="text"/>
<input type="button" value="送出"/>	

By registering in the user area, the user will be able to see transaction records, modify member information, adding new items to be exchanged or donated, manage items record, and retrieve or exchange transaction records

### Transaction records:

The transaction record page will display the personal data of the user who apply to exchange or to receive (donor). If the user agrees for this transaction, the user can click the “I agree” button and the item records will be removed from the website.

[會員資料&交易記錄]				
帳號	姓名	住址	電話	E-MAIL
R223456789	林貞	壽豐鄉189號	0912345678	q2@gmail.com

交易者: R223456789
交易時間: 2020-06-16
物品名稱
N95口罩
處理情況
<input type="radio"/> 同意 領用 <input type="button" value="送出"/>

給 領用 會員評價	
備註	(壽豐鄉189號 林貞 0912345678)
<a href="#">回首頁</a>	




### Adding new items to be exchanged or donated

The user will be required to choose the options to either exchange or donate. After clicking the options, the user would then be able to enter the medical supplies item name, select the category of the item, enter the number of the item available and upload the item's picture.

會員	R123456789
上架類型	交換 <input checked="" type="radio"/> 捐贈 <input type="radio"/>
品名	<input type="text"/>
類別	額溫槍 <input type="button" value="v"/>
物品資訊	我要捐贈: 我想交換:
插入圖檔	<input type="button" value="選擇檔案"/> 未選擇任何檔案
<input type="button" value="送出"/>	

### Manage items record

The user will be able to see which items they have put in the websites and item's detailed information

備註	品名	類別	物品型態	物品資訊	圖	
	N95口罩	N95口罩	捐贈	我要捐贈:N95口罩5個		<a href="#">結收 / 刪除</a>
上票中	口罩/漂白水	口罩	交換	我要捐贈: 口罩 10x 我想交換: 漂白水 2x		<a href="#">結收 / 刪除</a>
上票中	額溫槍	額溫槍	捐贈	我要捐贈: 額溫槍 1x 我想交換:		<a href="#">結收 / 刪除</a>

### Retrieve or exchange transaction records

This page will show the status of the transaction, the date, and whether the other party agrees to exchange or collect. If the other party agrees, it will be displayed

領用/交易紀錄				
類型	日期	編號	處理情況	
交換	2020-06-16	f6fee0d75		<a href="#">詳細資料</a>
交換	2020-06-16	3f7873f0a	結案	<a href="#">詳細資料</a>
交換	2020-06-16	7a4aa679e		<a href="#">詳細資料</a>

### The website's left side navigation bar

The users are able to choose to donate or exchange, or simply just navigate and browse through the listed products by their categories. The below picture example is what will be displayed when the user clicks “Browse for donated items”

[捐贈物品瀏覽]

[交換物品瀏覽]

[註冊會員]

[會員專區]

[系統管理]

[類別瀏覽]

[N95口罩]

[口罩]

[漂白水]

[酒精]

[額溫槍]

酒精類(捐贈)-



產品名稱:酒精

刊登者:b06902099

物品資訊:  
我要捐贈: 酒精 5x  
我想交換:...

[我想領用]

漂白水類(捐贈)-



產品名稱:漂白水

刊登者:R323456789

物品資訊:  
我要捐贈: 漂白水 2x  
我想交換:...

[我想領用]

N95口罩類(捐贈)-



產品名稱:N95口罩

刊登者:test99

物品資訊:  
我要捐贈:N95口罩x10  
我想交換:...

[我想領用]

口罩類(捐贈)-



產品名稱:口罩

刊登者:R423456789

物品資訊:  
我要捐贈: 口罩 10x  
我想交換:...

[我想領用]

額溫槍類(捐贈)-



產品名稱:額溫槍

刊登者:R123456789

物品資訊:  
我要捐贈: 額溫槍 1x  
我想交換:...

[我想領用]



Users can choose the items they want to retrieve/exchange

After clicking the [I want to exchange] or [I want to use] option, the detailed information of the item will appear. User will be required to re-confirm their preset personal data (personal data of the original registration), which the user could also modify some parts if they wanted to

上架帳號:R323456789		
	詳細資訊	
	額溫槍 額溫槍/N95口罩	
	物品資訊	我要捐贈: 額溫槍 1x 我想交換: N95口罩 5x
	物品型態	交換
	上傳時間	2020-06-16 20:38:03
<input type="button" value="我要交換"/>		

2020-06-18 物品收件人			
姓名	<input type="text" value="汪廷妍"/>	電話	<input type="text" value="0912345678"/>
地址	<input type="text" value="中正區重慶南路一段122號"/>		
<input type="button" value="結帳"/>			
<input type="button" value="[清空商品]"/>			

交易編號: 9ab98721b  
會員: R123456789  
物品名稱  
額溫槍/N95口罩

### Search function

Originally, we planned to implement a search function based on the number and location matching. However, as we did not have enough time left, in the end we only implemented search

by keywords function. The picture below shows the results after searching the keyword for [Alcohol], the products with [Alcohol] words will be displayed on the page

<p>漂白水類(交換)-</p> 	<p>漂白水類(交換)-</p> 	<p>口罩類(交換)-</p> 
<p>產品名稱:漂白水/酒精</p>	<p>產品名稱:漂白水/酒精</p>	<p>產品名稱:口罩/酒精</p>
<p>刊登者:test123</p>	<p>刊登者:R223456789</p>	<p>刊登者:R223456789</p>
<p>物品資訊: 我要捐贈:漂白水x1 我想交換:酒精x1...</p>	<p>物品資訊: 我要捐贈:漂白水x1 我想交換:酒精x1...</p>	<p>物品資訊: 我要捐贈:口罩x10 我想交換:酒精x1...</p>
<p><a href="#">[我要交換]</a></p>	<p><a href="#">[我要交換]</a></p>	<p><a href="#">[我要交換]</a></p>
<p>酒精類(捐贈)-</p> 	<p>酒精類(交換)-</p> 	
<p>產品名稱:酒精</p>	<p>產品名稱:酒精/漂白水</p>	
<p>刊登者:b06902099</p>	<p>刊登者:R423456789</p>	
<p>物品資訊: 我要捐贈:酒精 5x 我想交換:...</p>	<p>物品資訊: 我要捐贈:酒精 1x 我想交換:漂白水 1x...</p>	
<p><a href="#">[我想領用]</a></p>	<p><a href="#">[我要交換]</a></p>	

## System management

New items categories can be added into the system and member information can be managed

### 類別管理

NEW MEDIC

新增

類別名稱	
N95口罩	<a href="#">刪除</a>
口罩	<a href="#">刪除</a>
漂白水	<a href="#">刪除</a>
酒精	<a href="#">刪除</a>
額溫槍	<a href="#">刪除</a>

d. Difficulties we faced while working on the project

One of the biggest challenges that we encountered was the time constraints. Initially, we planned to implement more sophisticated several functions, such as: search function based on the number and location matching and search engine for multiple queries. However, due to limitations in time that we encountered, in the end we decided to keep it simple as long as it works. Other than that, most of the problems are trivial and we were able to solve it via team discussion and reached this outcome in the end.

e. Future possibilities for MedSupplies

For the future of MedSupplies, our team does hope that we can create a more sophisticated and well-equipped function platform. We hope that we can release better and new upgrade that includes more additional features such as:

- ✓ Security-related function
- ✓ Authentication user function
- ✓ Better search engine

We hope that by creating this and implement these additional features, MedSupplies will be able to help those people who are in needs

### **3. Conclusion**

This is the end of our final project report for the MedSupplies website that we created. We built MedSupplies, a platform that acts as an intermediary between people who are in emergency needs for medical supplies in the hope that it could at least act as a resource and reliever during this hard COVID-19 pandemic time. We implemented several important features in the website platform, such as login or register, donate, exchange, and rating functions. For the final implementation, we successfully created a full version of the original plan but due to time constraints, we have to adjust some functions, such as the search engine to a simpler version. Moreover, we also hope that new version upgrades and additional features could be built into the website for better user experience. In conclusion, MedSupplies still have plenty of room for

improvement but we do hope that it could be useful and valuable for the people who need it in the middle of this COVID-19 outbreak.

## **4. References**

HTML講義: <http://web.cjcu.edu.tw/~jchen/course/introcomputer/lecture/html.htm>

CSS講義: <http://web.cjcu.edu.tw/~jchen/course/introcomputer/lecture/css.htm>

PHP講義(含架站資源): <http://web.cjcu.edu.tw/~jchen/course/phpMysql/phpMysql.htm>  
<https://www.w3schools.com>

## **5. Work Distribution**

汪廷妍 B04902062 - 1/6

曾彬輝 B05902099 - 1/6

劉益瑋 B06902100 - 1/6

林貞 B06902099 - 1/6

李恩慈 B06902098 - 1/6

柯燕玲 B06902086 - 1/6