

GE2335 Written Report
Mat Kong's Fans Club (852 based)

Book Shop Database System

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Contents:

1. Introduction
2. Sign Up for Member
 - 1.1 Sign Up Procedures
 - 1.2 Work Example
 - 1.3 Data Validation (Message boxes for Error Messages)
3. Login System
 - 3.1. Login as Guest
 - 3.2. Login as Member
 - 3.3. Login as Staff
 - 3.4. Login as Manager
4. Book Searching System
 - 4.1. Default Page
 - 4.2. Book Cover
 - 4.3. Input Box & Bottoms
 - 4.4. Searching & its feature / limitation
5. Ordering System
 - 5.1. Ordering as Member
 - 5.2. Ordering as Staff
6. Manager's Chart
 - 6.1. Navigation of the chart
 - 6.2. Updating of the chart

1. Introduction

To study the real-life application of Business programming with Spreadsheet, our group developed a simple Excel VBA application for a pure online book shop. The application consists of a customer interface and staff interface. The book searching system displays available book information. With the ordering system, customers can further get book details and process orders. There are five systems for customers:

1. The sign-up system
2. The log-in system
3. The book searching system
4. The ordering system
5. Staff can log in to the excel interface.

Our excel spreadsheet consists of 6 sheets: Books, Publishers, Staffs, Members, Orders, SalesTable. The first sheet records a database of books, consisting of book id, title, author, publisher id, date published, category, list price, cost, and stock quantity. The second sheet notes down publisher id and publisher name. As for the sheet named as Staffs, staff id, full name, phone, email, hire date, start salary, password, and username for logging into the system. Similarly, the Member sheet includes member id, full name, phone, email, district, active date, password, and username. Lastly, the Order sheet is a database of orders information. This sheet contains order id, book id, member id, staff id, order date, discount, and order quantity.

2. Sign Up for Member

2.1 Sign Up Procedures

Sign Up ×

Membership Sign Up

First Name:	Last Name:
<input type="text"/>	<input type="text"/>
Contact No.:	Email:
<input type="text"/>	<input type="text"/>
Username:	District:
<input type="text"/>	<input type="text"/>
Password:	
<input type="text"/>	
Confirm your password:	
<input type="text"/>	

(image 1a screenshot of a blank membership sign up form)

When new users want to use the online bookshop database system, they first have to register. Type in the first name, last name, contact number, email, username, password, and confirmed password in the spaces provided. Also, they need to choose the district he is living in by selecting an option from the combo box. After finishing the above steps, click “Sign Up”. The system will automatically create a new row of the database from the new user in the sheet.

If the user wishes to log in as a Guest, they can skip the signup procedures and click the lowest right button, “Cancel and Login As Guest”.

2.2 Work Example

Sign Up ×

Membership Sign Up

First Name: Last Name:

Contact No.: Email:

Username: District:

Confirm your password:

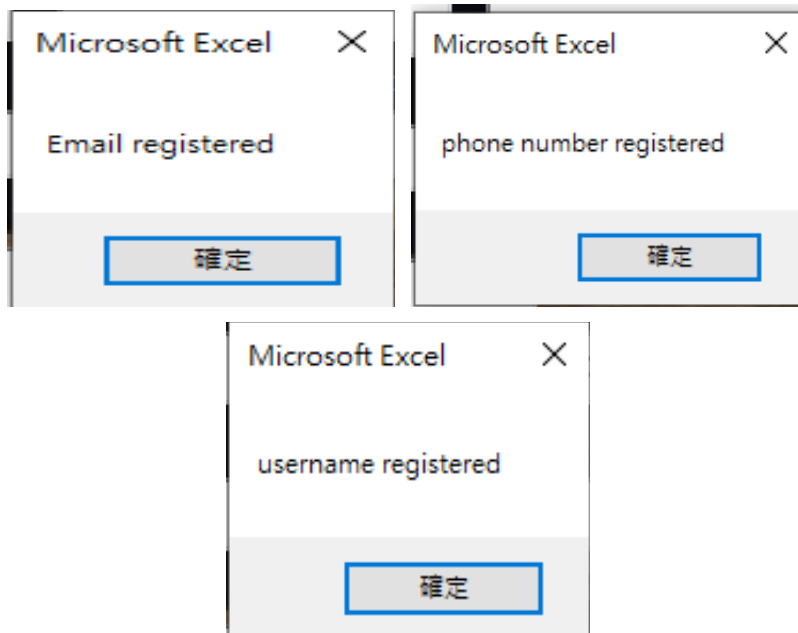
(image 2b screenshot of John Kennedy signing up for membership)

	A	B	C	D	E	F	G	H	I
1	member_id	FirstName	LastName	Phone	E-mail	Districts	ActiveDate	Password	Username
2	M00001	Mary	Fung	90874537	maryfung01@hotmail.com	Sham Shui Po	29/10/2021	pw012f	Fung
3	M00002	Peter	Chan	56730287	petc899@yahoo.com.hk	Central & Western	30/10/2021	123	123
4	M00003	Adeena	Wong	98372940	wongaa@gmail.com	Tsuen Wan	1/11/2021	pw012w	Wong
5	M00004	Oscer	Lee	68920173	oscerleeeee@hotmail.com	Yau Tsim Mong	2/11/2021	pw012l	Lee
6	M00005	Joyce	Wu	56624584	joyceeeee@gmail.com	Yuen Long	2/11/2021	pw012l	Joyce
7	M00006	Colin	Chu	67153184	colincc23476@gmail.com	Yau Tsim Mong	6/11/2021	pw012c	Colin
8	M00007	Helen	Chan	91324242	helency12@gmail.com	Southern	6/11/2021	pw012h	Helen
9	M00008	Bella	Wong	58347252	wongbellaa344@gmail.com	Tuen Mun	6/11/2021	pw012b	Bella
10	M00009	Zara	Lai	98735642	zaralai21@gmail.com	Kwun Tong	7/11/2021	pw012z	Zara
11	M00010	Chad	Tang	65221345	chadtsw1993@hotmail.com	Sai Kong	10/11/2021	pw012c	Chad
12	M00011	Chris	Wong	55113546	chrswong1122@gmail.com	Kowloon City	10/11/2021	pw012c	Chris
13	M00012	John	Kennedy	95673456	John@gmail.com	Eastern	28/11/2021	john	John123
14									

(image 2c screenshot of the database after adding a new member called "John Kennedy")

Using John Kennedy's identity, personal information is filled into the spaces provided according to the guidance above (result shown in image 1b). Click "Sign Up" for further procedures. A new row of data regarding the registration of John Kennedy is then created in row13 afterward (shown in image 1c).

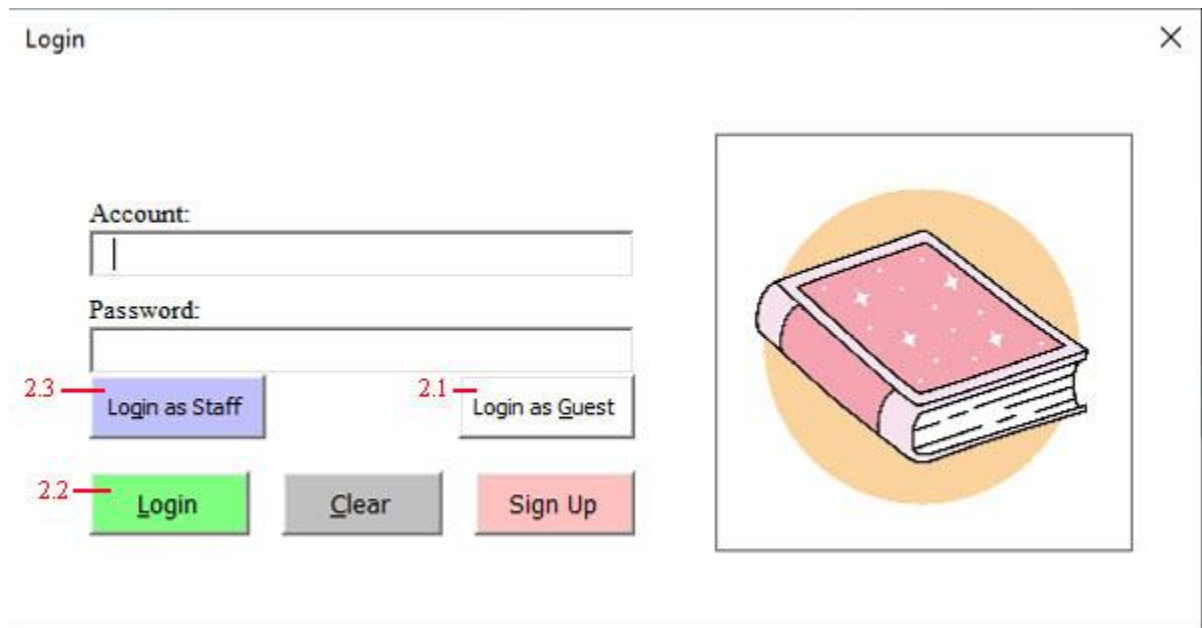
2.3 Data Validation (Message boxes for Error Messages)



(image 2d screenshot of the message boxes pop up regarding different situations)

The system will show the user inputs data (Email, phone number, username), same as one in the database, according to the message box. Users can click “OK” to return to the membership sign-up form.

3. Login System

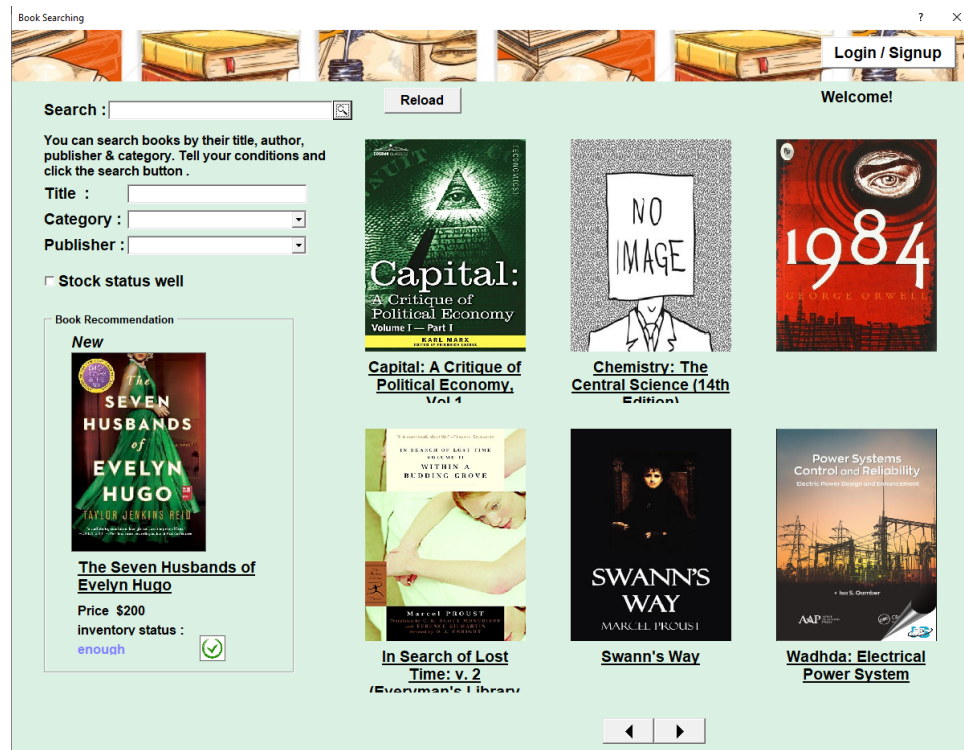


(image 3a. Screenshot of Login interface with notes)

The Login interface is simple with two input boxes for Account and Password; Three Login command buttons including Login as Guest, Login(As member) and Login as Staff are provided as shown; A function button to clear all input boxes is provided as well, and next to it is a button that links to the Sign Up form.

3.1. Login as Guest

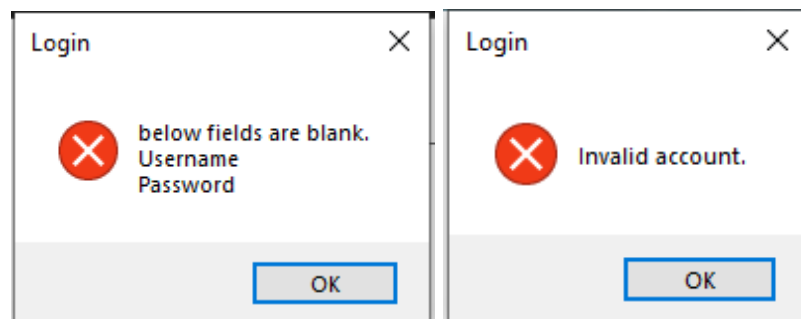
Guests can login by simply clicking the ‘Login as Guest’ button or use the key ‘Alt+G’. It brings users to the Main interface. Users can look at the books and use the search book function. Users can click the ‘Login/ Sign Up’ button on the top right hand corner to get to the Login System interface (image 2a) again.



(image 3a. Screenshot of the Main interface)

3.2. Login as Member

Members can login with their existing accounts and passwords. (Data stored in 'Members' worksheet) Error message box will pop up if the 'Login' button was clicked while any input box is empty or the inputs were invalid/ not inside the database.



	A	B	C	D	E	F	G	H	I
1	member_id	FirstName	LastName	Phone	E-mail	Districts	ActiveDate	Password	Username
2	M00001	Mary	Fung	90874537	maryfung01@hotmail.com	Sham Shui Po	10/29/2021	pw012f	Fung
3	M00002	Peter	Chan	56730287	petc899@yahoo.com.hk	Central& Western	10/30/2021	123	123
4	M00003	Adeena	Wong	98372940	wongaa@gmail.com	Tsuen Wan	11/1/2021	pw012w	Wong
5	M00004	Oscer	Lee	68920173	oscerleeeee@hotmail.com	Yau Tsim Mong	11/2/2021	pw012l	Lee
6	M00005	Joyce	Wu	56624584	joyceeeeeee@gmail.com	Yuen Long	11/2/2021	pw012l	Joyce
7	M00006	Colin	Chu	67153184	colincc23476@gmail.com	Yau Tsim Mong	11/6/2021	pw012c	Colin
8	M00007	Helen	Chan	91324242	helency12@gmail.com	Southern	11/6/2021	pw012h	Helen
9	M00008	Bella	Wong	58347252	wongbellaa344@gmail.com	Tuen Mun	11/6/2021	pw012b	Bella
10	M00009	Zara	Lai	98735642	zaralai21@gmail.com	Kwun Tong	11/7/2021	pw012z	Zara
11	M00010	Chad	Tang	65221345	chadtsw1993@hotmail.com	Sai Kong	11/10/2021	pw012c	Chad
12	M00011	Chris	Wong	55113546	chriswong1122@gmail.com	Kowloon City	11/10/2021	pw012c	Chris

(image 3b. Screenshot of 'Members')

It brings members to the main interface. Members can use the search book function and purchase books with a member discount.

Demo Account: Fung

Demo Password: pw012f

3.3. Login as Staff

Staff can log in with their accounts and passwords. (Data stored in 'Staffs' worksheet) Error message box will pop up if the 'Login' button was clicked while any input box is empty or the inputs were invalid/ not inside the database. It brings staff to the main interface and also shows worksheet 'Books' which stored information of Books including Stock Quantities and Listed Price; worksheet 'Publishers' which stored the information of Publishers and worksheet 'Order' which stored the information of orders.

	A	B	C	D	E	F	G	H	I
1	Book_id	Title	Author	Publisher_id	DatePublished	Category	ListPrice	Cost	StockQty
2	B00001	Capital: A Critique of Political Economy, Vol 1	Karl Marx	P003	7/30/2010	Politics & Social Sciences	HK\$ 320.00	HK\$280.00	3
3	B00002	Chemistry: The Central Science (14th Edition)	Theodore L. Brown	P001	2011	Chemistry	HK\$1,370.00	HK\$980.00	0
4	B00003	Nineteen Eighty-Four	George Orwell	P005	6/8/1949	Fiction	HK\$ 86.00	HK\$55.00	7
5	B00004	In Search of Lost Time: v. 2 (Everyman's Library Classics)	Marcel Proust	P006	2001	Novel	HK\$ 146.00	HK\$89.00	8
6	B00005	Swann's Way	Kindle Edition	P004	2012	Fiction	HK\$ 15.48	HK\$6.00	34
7	B00006	Wadhwa: Electrical Power System	C. L. Wadhwa	P002	11/15/1983	Electrical Engineering	HK\$2,270.00	HK\$2,100.00	20
8	B00007	Ulysses	James Joyce	P007	1920	Novel	HK\$ 54.00	HK\$22.00	2
9	B00008	Don Quixote	Miguel de Cervantes	P007	2003	Novel	HK\$ 69.00	HK\$40.00	1
10	B00009	The Great Gatsby	F. Scott Fitzgerald	P007	2002	Novel	HK\$ 89.00	HK\$65.00	10
11	B00010	Moby Dick	Herman Melville	P007	2013	Novel	HK\$ 55.00	HK\$25.00	30

(image 3c. Screenshot of 'Books')

	A	B
1	Publisher_id ▼	PublisherName ▼
2	P001	Pearson
3	P002	New Academic Science Ltd
4	P003	CreateSpace Independent Publishing Platform
5	P004	Ming Pao Enterprise Corporation Ltd
6	P005	Secker & Warburg
7	P006	City University Of Hong Kong Press
8	P007	South China Morning Post
9	P008	Longman Hong Kong Education
10	P009	Skywalker Press Limited
11	P010	Blacksmith Books
12	P011	Blackwood's Magazine
13	P012	Chapman & Hall
14	P013	Jonathan Cape and Harrison Smith

(image 2d. Screenshot of 'Publishers')

1	Order_id ▼	Book_id ▼	Member_id ▼	Staff_id ▼	OrderDate ▼	discount ▼	OrderQty ▼
2	O00001	B00001	M00001	S001	10/29/2021	0.00%	2
3	O00002	B00002	M00002	S002	10/30/2021	20.00%	5
4	O00003	B00003	M00003	S002	11/1/2021	0.00%	1
5	O00004	B00004	M00004	S001	11/2/2021	5.00%	2
6	O00005	B00010	M00002	S003	11/2/2021	0.00%	1
7	O00006	B00005	M00005	S001	11/2/2021	0.00%	1
8	O00007	B00021	M00006	S002	11/6/2021	10.00%	2
9	O00008	B00032	M00006	S002	11/6/2021	10.00%	1
10	O00009	B00011	M00006	S002	11/6/2021	5.00%	1

(image 3e. Screenshot of 'Orders')

Demo Account: Yeung

Demo Password: pw01234\$

3.4. Login as Manager

Managers can login with their accounts and passwords. They have access to certain worksheets similar to Staff, but managers also have access to 'Staffs' worksheet which stores staffs' accounts and passwords, 'Members' worksheet which stores members' accounts and passwords and 'SalesTable' worksheet which managers can analyze data.



(image 2f. Screenshot of 'SalesTable')

Demo Account: manager

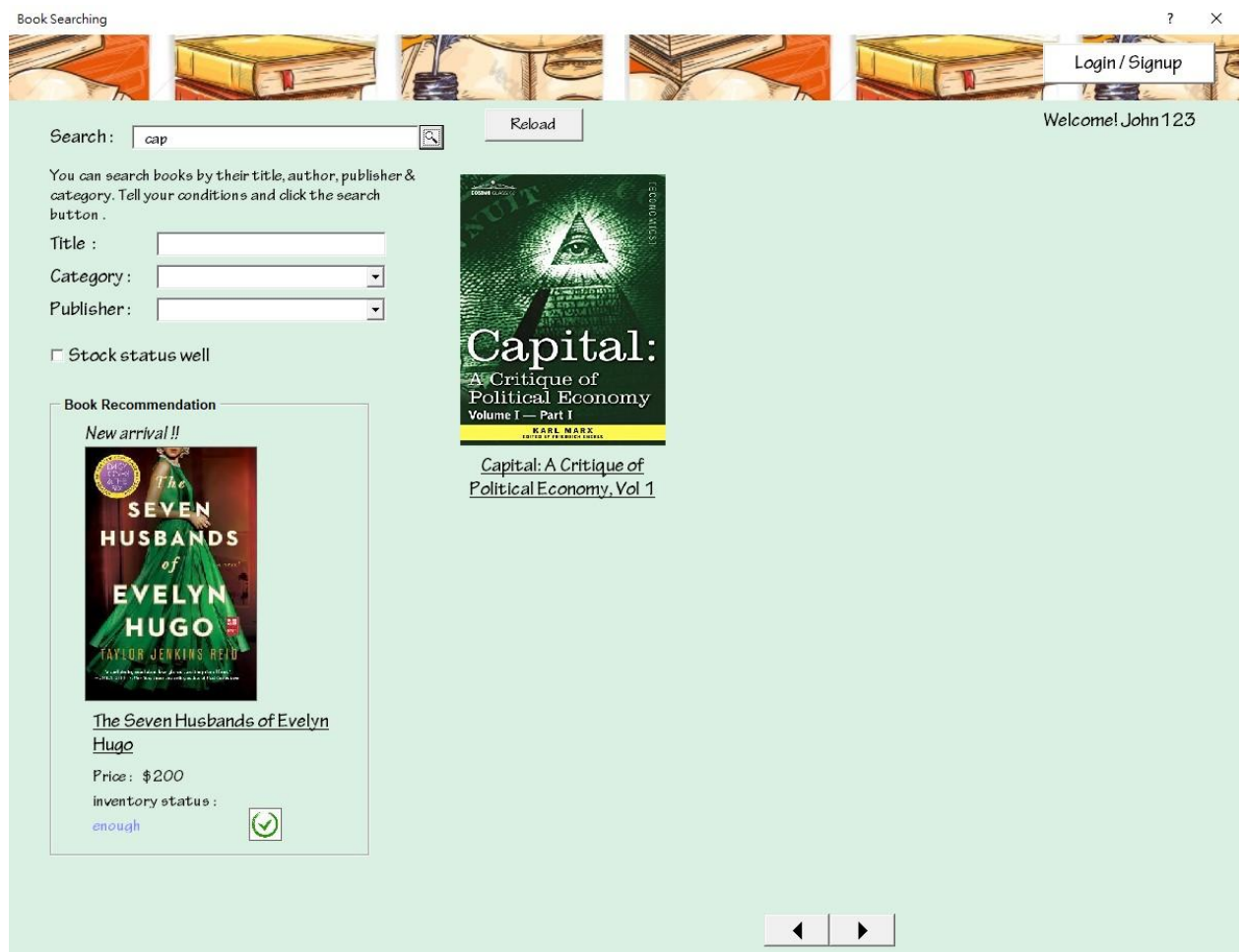
Demo Password: manager

The interface can show seven books' information on one page (one is the new arrival book with price and inventory information). It is possible to adjust the pages by clicking on the spin button located on the page below, the user can get information other than the first seven books. (pages limited in seven pages)

The user can reload the page to the default page by clicking on the reload button.

Although the user is already logged in, they can still log in again with another account by clicking on the "Login/Signup".

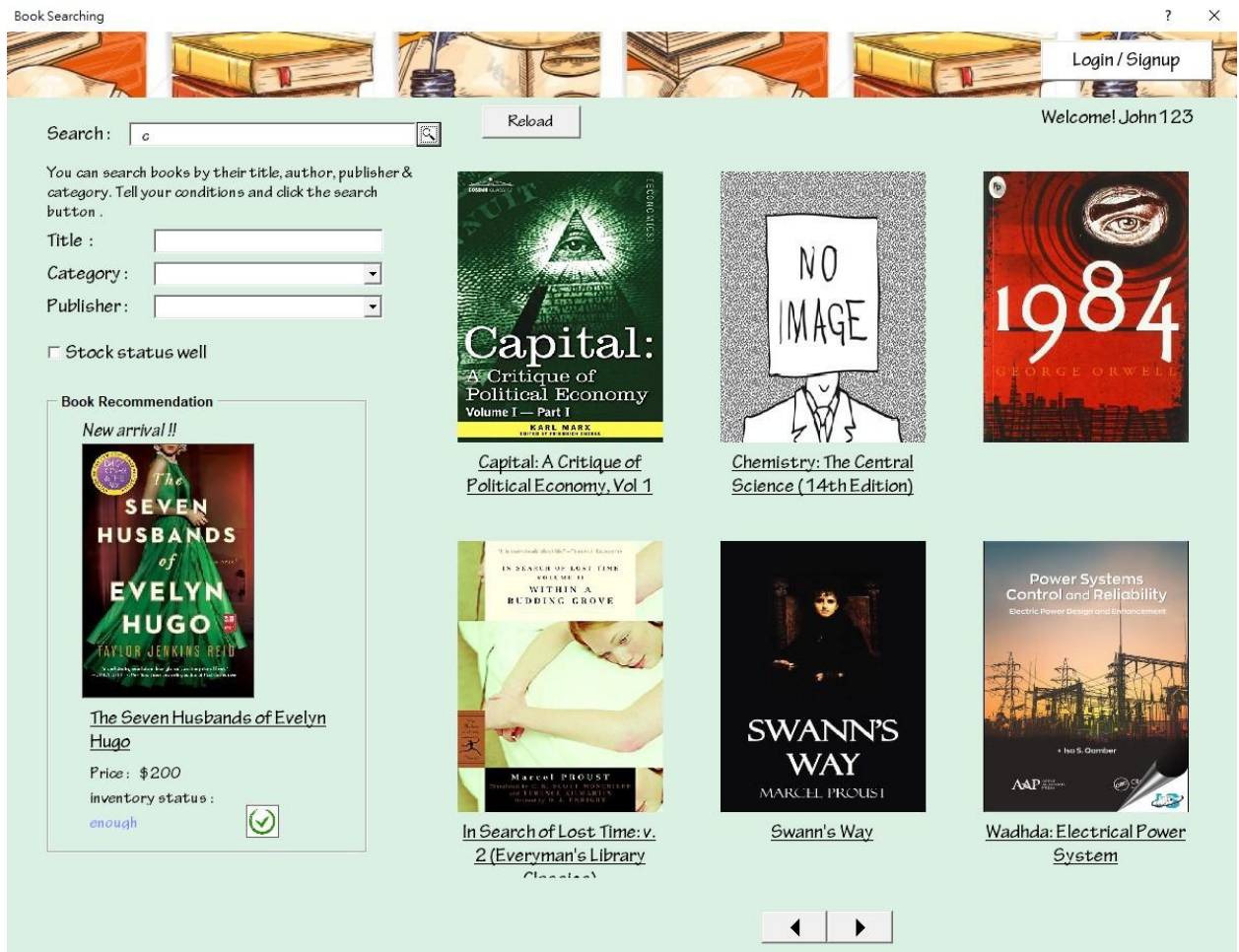
4.4. Searching & its feature / limitation



(image 4.6. General Search: "cap")

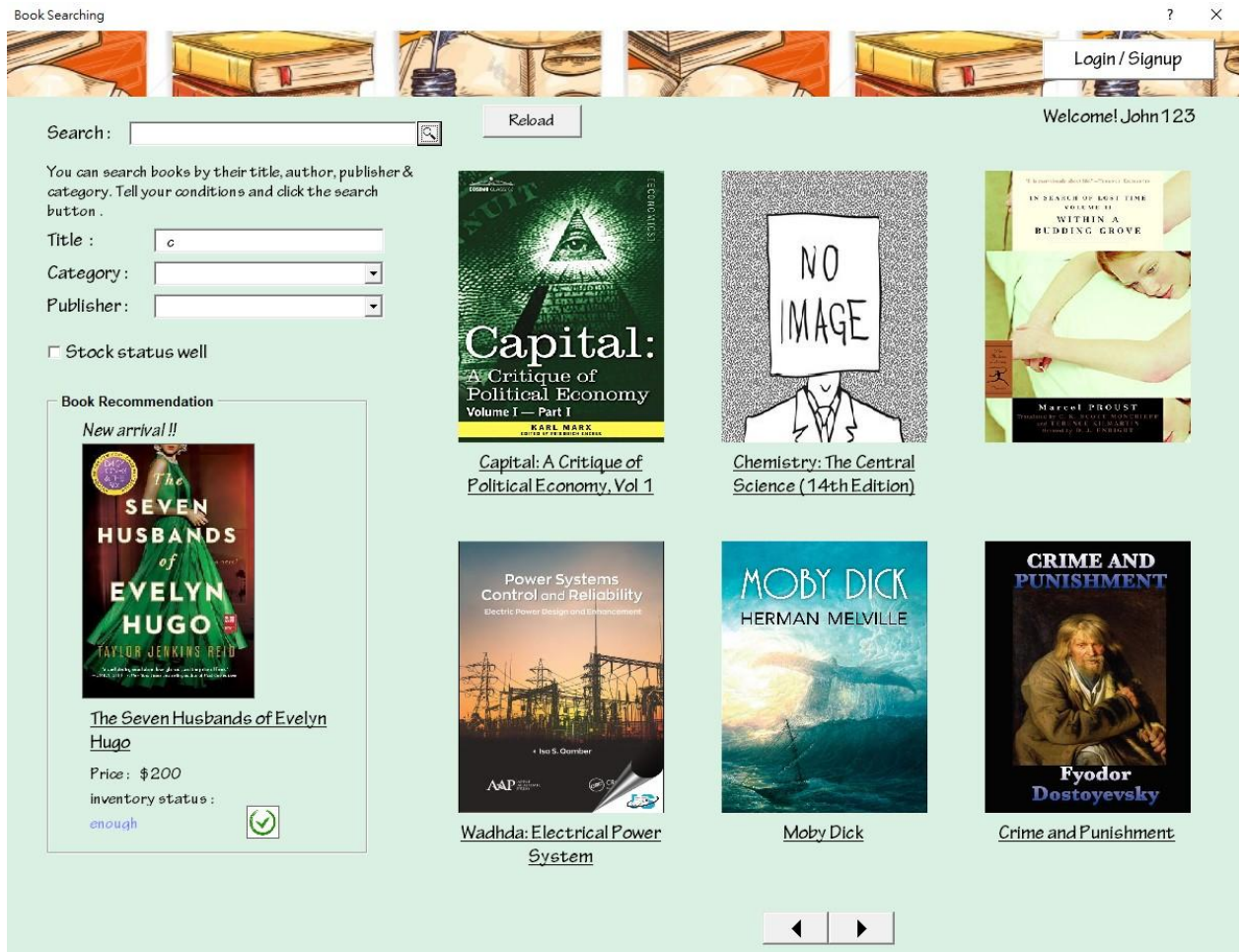
The user can do a general search (search book by title, author, publisher, or category) by typing in the text to the text box located in the top left-hand corner, then clicking the search pattern. Noting that the book searching engine only allows or search, so when the user search "cap" generally, the searching engine searches books with a title containing

“cap” or author name containing “cap” or publisher containing “cap” or category containing “cap”.



(image 4.7. General Search: “c”)

As image 4.7 shown, when the user search “c” generally, the fifth result “Swann’s Way” contain no “c” in the book title, because its author, publisher, or category name may contain “c”.



(image 4.8. Search by title: “c”)

If need only the book information with only its title contains “c”, search in the title text box. With the same principle, the user can search only by title, category, or publisher separately by typing the text conditions only in corresponding text boxes, then clicking the search pattern.