

Hacettepe University
Computer Engineering Department

BBM 473 - Database Management Systems Laboratory
Experiments Phase 4



Subject: Develop your desktop database management module

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Project: E-book Subscription Service

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Ebook and Audiobook Service

Project Definition

Our project is a digital book service that gives you access to ebooks and audiobooks. The service is not free. Users get 3 days free. After 3 days they have to upgrade their account to premium and they have to pay subscription price monthly. Premium users get all ebook and audio book which are in the system.

Premium users create their own shelves. The users can give their shelves the names they want. Both ebook and audiobook files of books added to the shelves and library are shown to the user. The user can use any of these two options. The library may contain books that are both shelf and non-shelf. Another difference of the library from the shelves is that the library is not public, unlike the shelves. The user will be able to see the book that the user most recently read or listened to and where it is located.

Users can see the books of the authors they want, the books they want in the category and the books they have selected in a year, and they can read/listen to them.

A category can have more than one subcategory. For example, the "Fiction" category may have two subcategories, "Science Fiction" and "Historical Fiction". Categories are created by admins.

Web Application

In this project we've used PHP for server-side and JavaScript for client-side. Also we've used Semantic-UI¹ for user interface. In this phase we are expected some steps. We explain these steps in below using screenshots from the program.

User login screen

The screenshot shows a login form with the following elements:

- Title:** Login
- Username Field:** A text input field with the placeholder text "Username".
- Password Field:** A text input field with the placeholder text "Password".
- Login Button:** A solid blue button with the text "Login".
- Register Button:** A white button with a blue border and the text "Register".

Figure 1

First screen of the application which is called Login screen(Fig. 1) needs **Username** and **Password**. If the user already has an account, the user just fills up the related areas and clicked the **Login**, otherwise the user must have to create a new account by clicked **Register**. If the user has an account but he/she fills up the related areas wrong, an error message appears(Fig. 1.1).

If the user clicks Register, then the user will see the screen(Fig 1.3)

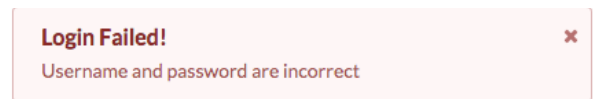


Figure 1.1

As we mentioned above, our project is a subscription service. For this reason the users must have to fill up their credit card information.

User login passwords

When the user creates an account, her/his password are stored after database encryption. We used the **sha1** method to encrypt user passwords. You can see our database table in below(Fig 2). When the user fills up Password field, firstly we convert the password value to sha1 and get a string. Then we get related user's USER_PASSWORD value from our databases and compare these two values. If the values are equal each other then the user login succesfully to the sytem.

Personal Information

Username

Password

First Name

Last Name

Email

Shipping Information

Name
 First Name Last Name

Billing Address
 Street Address Apt #

State
 State Country

Billing Information

Card Type
 Type

Card Number
 Card #

CVC
 CVC

Expiration
 Month Year

Figure 1.3

	USERID	USERNAME	USER_PASSWORD	FIRST_NAME	SURNAME	REGION
1	1	EkremC.	6367c48dd193d56ea7b0baad25b19455e529f5ee	Ekrem	Candemir	middle-east
2	2	Luo	6367c48dd193d56ea7b0baad25b19455e529f5ee	Berk	Özata	middle-east
3	3	anon	cf61cf19cad7c6eb2494748ebc17c1c786cd84b	Loren	Silk	US
4	4	abera	b3807ff0a60ddc13f8d37a27e3768617c399cc24	Anderson	Bera	US
5	5	wweit	1d6b369a422105677deff151a210984cc9b4d655	Willodean	Veit	US
6	6	sjohn	3f1b453405db5dbb940a370cb5882c4e2045fa2a	Shayne	John	US
7	7	deneme	40bd001563085fc35165329ea1ff5c5ecbdbbeef	Ardella	Rotter	US
8	8	efrink	6df23a41b0344950cb436772f5dfd3d04a56a90c	Emmanuel	Frink	US
9	9	mbeachy	e3cae74f9579d1b864f2f402c96cf466d3112b7f	Maia	Beachy	US

Figure 2

Authorization module

We have two different interfaces. One of them is admin interface(Fig. 3) and the other one is user interface(Fig 3.1). In admin main page, admins see the statistics information about the users, authors, categories etc. If admin wants to download these information such as books on the system, authors on the system or system logs etc. Admin should only click on the button in the desired form. Then the file starts downloading.

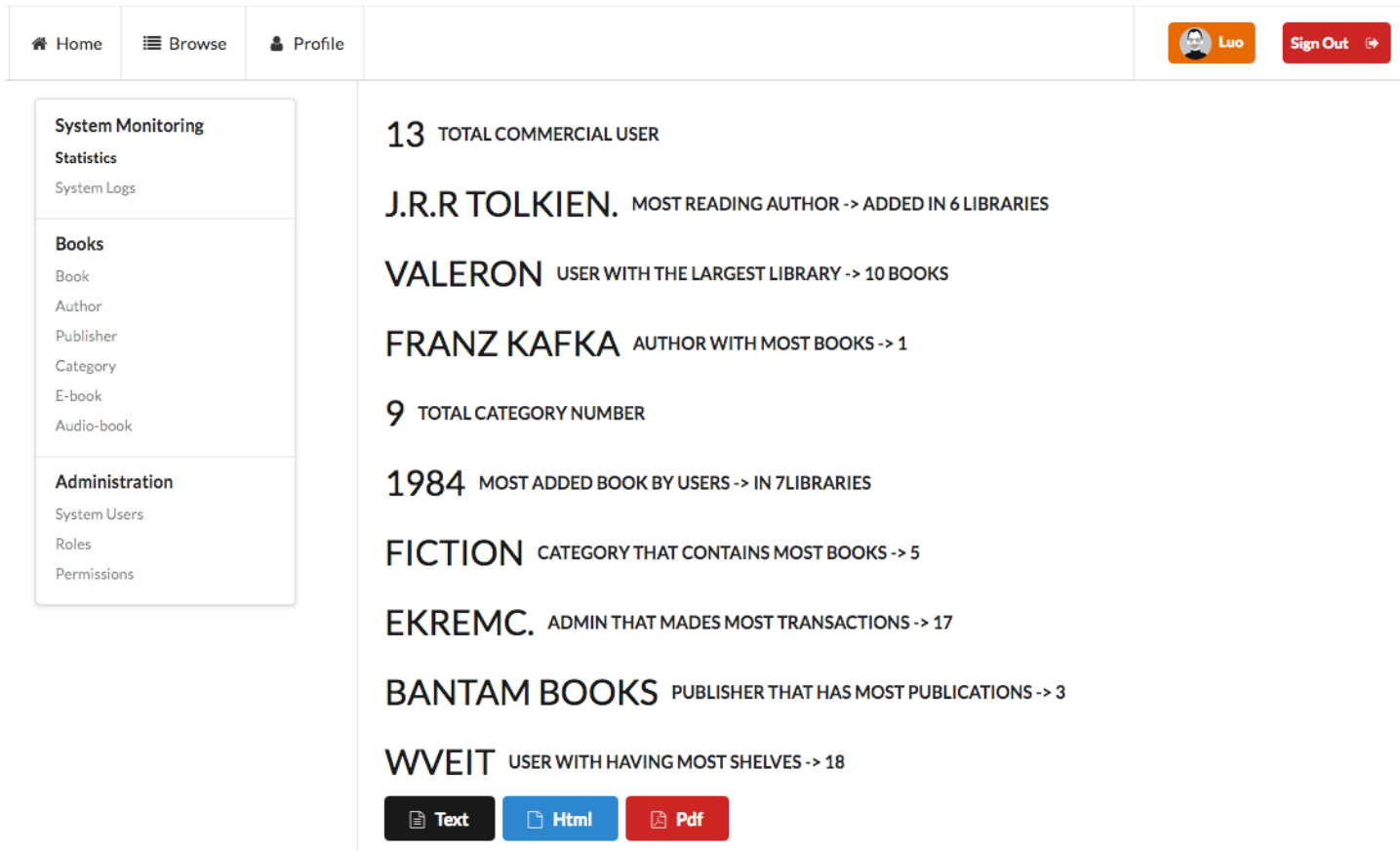


Figure 3

In user main page(Fig 3.1), users see filter section on the left of the screen. Users can choose categories they want, authors they want or publisher or all of them. In a large part of the page, users see slides. First slide is **Most Read** that shows the users most read books name and the number of people reading them. The second one is **Authors** that shows author's name and how many users have them in their library. Also users see their library and shelves by clicking **My Library**.

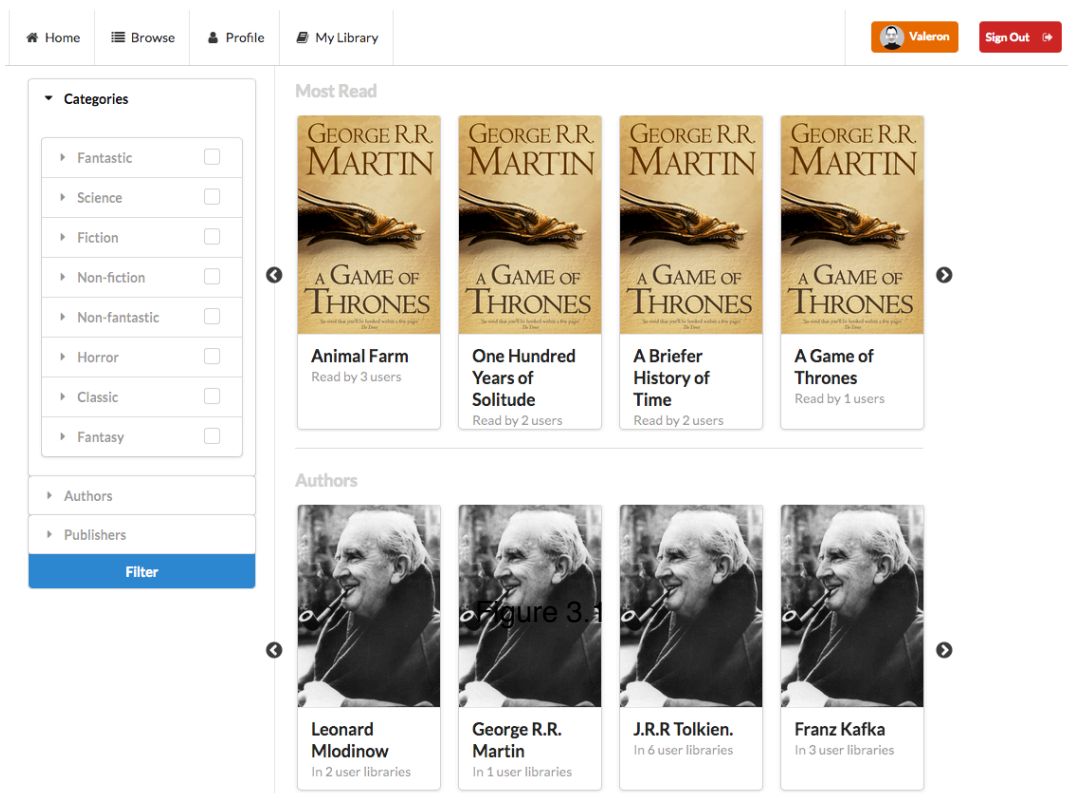


Figure 3.1

Listing Screen

Users see the page (Figure 4) after clicking **My Library**. Users can see the book information such as author of the book, publisher of the book and number of pages of the book in this page. Also if the users want to remove a book from their library, they just click the **Remove** button. Also in this page, users can add new shelves by clicking **Shelves** (Figure 4.1).

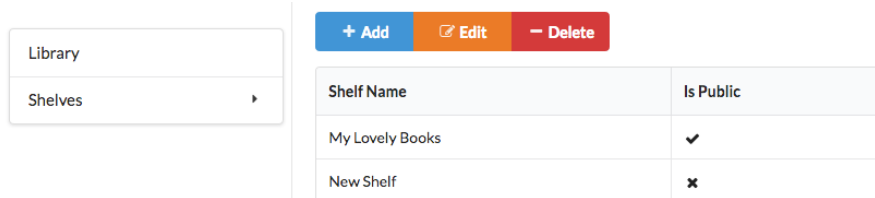


Figure 4.1

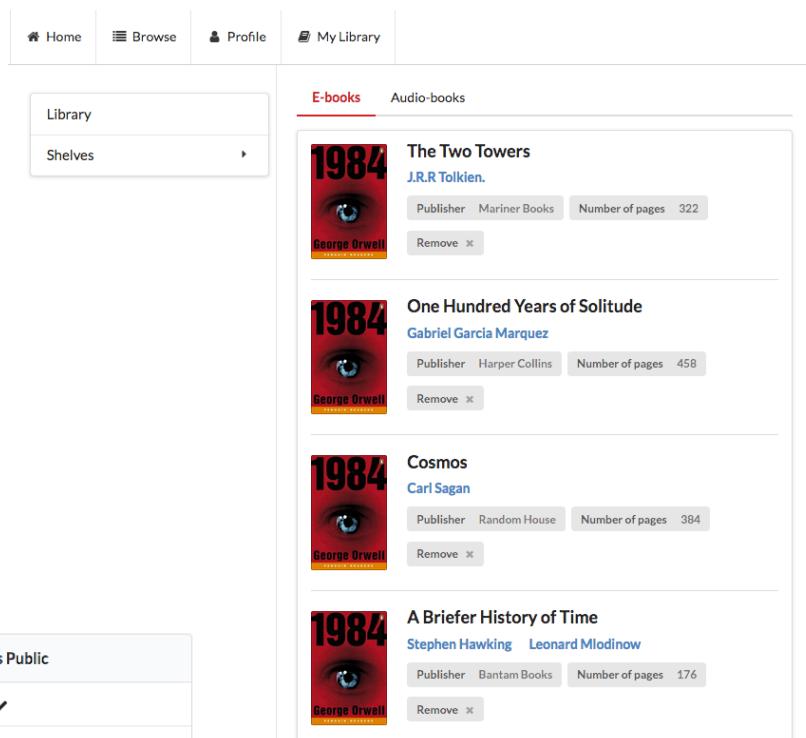


Figure 4

In this user profile page, users can see their profile card, book number in their library and their shelves. If users want to see own shelf, they should use the shelf they want to and click the **Bring My Shelf!**. Then Shelf slide area is activated and shows to user's shelf.(Fig 4.2)

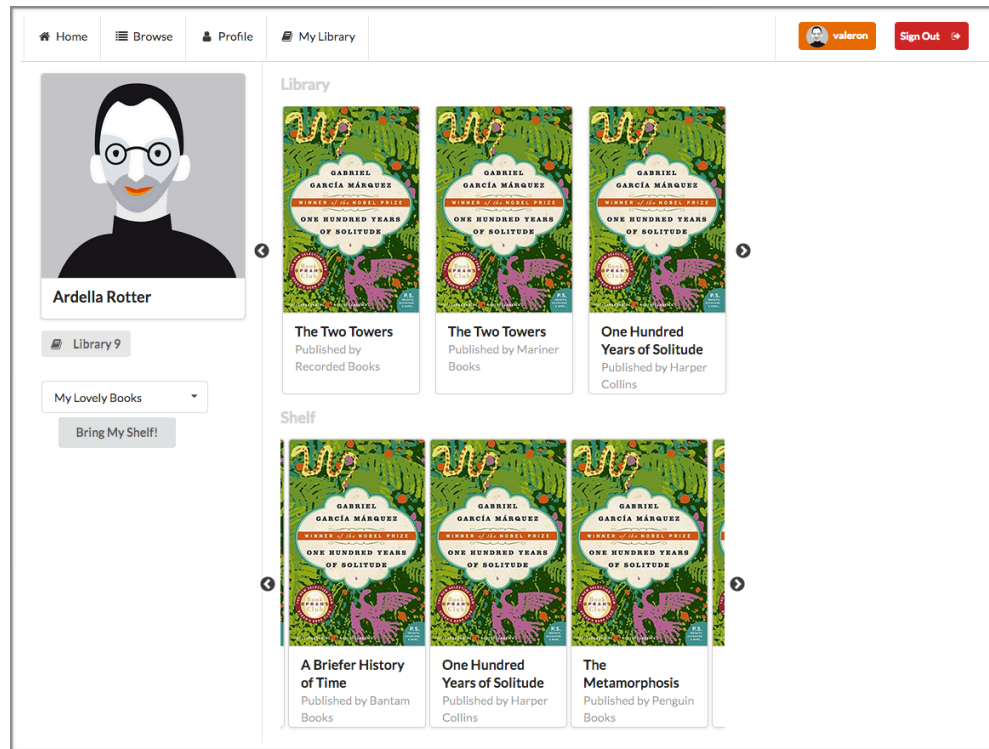


Figure 4.2

Data Entry and Photo Entry Screens

Admins can add, edit, and delete sections under the Books tab on the left side of Picture 3. You can see **Add Book** screen(Fig. 5). Also in this screen, admins can upload book's cover by clicking **Upload**.

Figure 5

Filter screens

Users can filter the books by category, author or publisher with allowing multiple selections. Users can view the book in the category they want or written by author they want or published by publisher they want(Fig. 5). Also users can choose multi filtering. For example, if users want to list a book which whose category is **Fantastic**, author is **J.R.R Tolkien** and publisher is **Mariner Books**, then users get the result which is Two Towers(Fig 6.1)

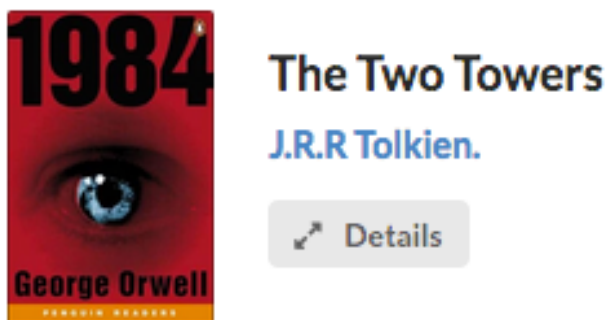


Figure 6.1

P.S : The cover of the book is representative.

▼ Categories

▶ Fantastic☐

▶ Science☐

▶ Fiction☐

▶ Non-fiction☐

▶ Non-fantastic☐

▶ Horror☐

▶ Classic☐

▶ Fantasy☐

▶ Authors

▶ Publishers

Filter

Figure 6

Statistics Screen

The statistics that we kept in our web application (Fig. 7) as follows:

- Total commercial users
- Author whose books are added most in user libraries
- User with largest library
- Author who has the most books registered in our system
- Total category number
- Most added book into user libraries
- Category with most books
- System user who made most transactions
- Publisher that has the most publications registered in our system
- User with most shelves

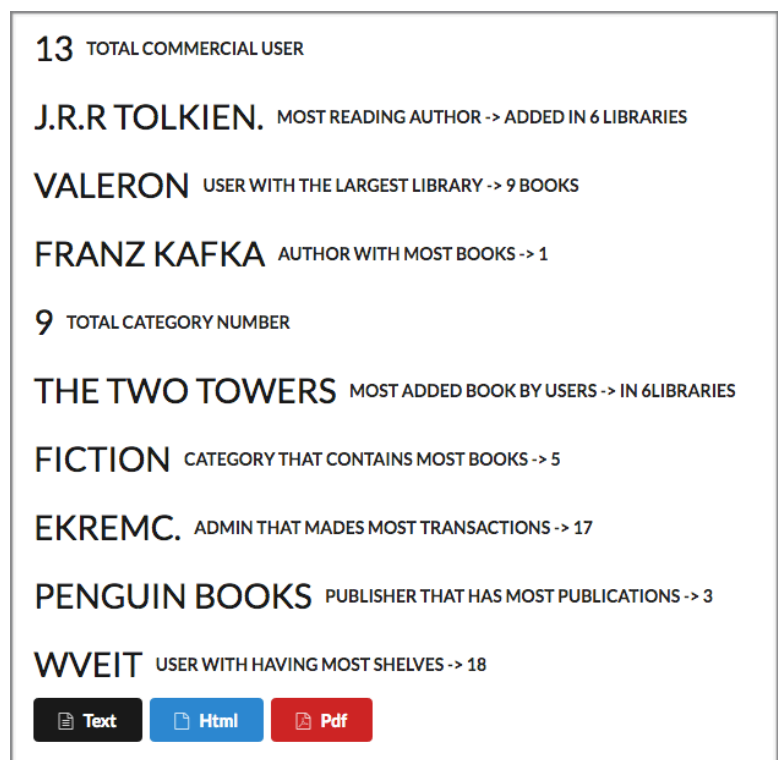


Figure 7

Processing History

We created a table named LOGTBL in database to handle processing history. We use this table to keep track of which user performs an action with its type in which table to which object. We follow the changes on author, book, publisher, category, ebook and audiobook tables after insert, update or delete operation is performed on(Fig. 8).

Username	Tablename	Object ID	Operation	Operation Date
Luo	AUTHOR	43	Delete	24-MAY-17
EkremC.	AUTHOR	43	Update	24-MAY-17
EkremC.	CATEGORY	1	Update	24-MAY-17
EkremC.	CATEGORY	1	Update	24-MAY-17
EkremC.	CATEGORY	1	Update	24-MAY-17
EkremC.	CATEGORY	1	Update	24-MAY-17
EkremC.	CATEGORY	1	Update	24-MAY-17
EkremC.	CATEGORY	1	Update	24-MAY-17
EkremC.	EBOOK	5	Update	24-MAY-17
EkremC.	EBOOK	61	Update	24-MAY-17

Text Html Pdf

Figure 8

References

1. <https://semantic-ui.com/>
2. <http://php.net/manual/en/>