



Personal Media Library for iOS devices

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Introduction

People having large collection of media are having difficulties in handling their media. Though existing applications can keep media records, they are not efficient enough in handling media loans and the contacts of borrowers.

Who is keeping my drama CD? Has Mr. B returned the book to me yet? Nice people who always share their collection with friends may have the above questions.

To solve this problem, we developed a personal Media Library application on iOS, which is able to handle all the media that a person possess, and help them with the tracking of the lent items.

Objectives

Our system allow user to perform a series of tasks using the personal media library:

- ✓ handle media loans and returns
- ✓ identify user by a QR code
- ✓ scan ISBN barcodes to obtain book info
- ✓ due date reminding notification via e-mail
- ✓ share info of a media item to social media
- ✓ export media list to JSON for future editing

System Architecture

The application performs its functions mainly in the iPhone application, while the auto-filled book details are fetched from the ISBN database of Goodreads via the Internet.

On the other hand, the exported JSON file using the export function can be processed by computers and related tools. The edited file can be imported back to the application using the import function.



Identification using QR

During the Loan and Return process, users can scan the QR code for contact information instead of typing by themselves.

The QR code is shown in the view “Personal QR Code”, where users can check their contact information and set a phone number.



Scan & Add a Record

Similar to the scanning of QR, users can choose to scan the ISBN-13 on their book to fill in the book info when adding media records, or using the loan media function.



3-Step Loan & Return

The loan and return function is used to update the media record when users lend their media to others or getting back their media.

The process mainly follows 3 steps:

1. Identify borrower: input or scan user info
2. Set loan details: select media and set returning date
3. Confirm: confirm the details filled in step 1 & 2

E-mail Reminder

When users are checking the loan record, they can send an e-mail to their borrowers to remind them for media return.



Share with the world

In the view displaying media details, users can share the displaying media to the Internet by using the “Share” button.

Backup with JSON

To prevent data loss and enhance mass data input, users can export their media library contents to a JSON file for editing and import back later.



Conclusion

Throughout the whole project, we have changed our system design several times to make the system more independent of the Internet.

Finally, we are able to implement most functions that do not require network connection except the sharing of media and fetching of auto-filled book details.

We hope that this project can help people to manage their collection better, and can be integrated with projects developed on Android.