

**Test Report**

**for**

**Library Information Application**

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Table of Contents

Index

[[Library information appliciation]](#_Toc480998875)

[Version 1.0](#_Toc480998877)

[June 9, 2018](#_Toc480998878)

[1. Purpose of test report](#_Toc480998879)

[2. test plan](#_Toc480998881)

[3. Unit test](#_Toc480998881)

[3.1 unit test #0](#_Toc480998880)

[3.2 unit test #1](#_Toc480998880)

[3.3 unit test #2](#_Toc480998880)

[4. integration test](#_Toc480998879)

[4.1 integration test #1](#_Toc480998880)

[4.2 integration test #2](#_Toc480998880)

[5. Full test](#_Toc480998879)

[5.1 full test #1](#_Toc480998880)

1. **Purpose of Test Report**

Library management can be a hard task. Management software in library tends to be barely usable with features that seem geared towards tracking that whether user be late on returning book rather than being easy and intuitive to use.

Another problem that tends to plague some library management system is weak or non-existent security.

In many systems, some of the needed functionality is only available to the manager, so administrators are granted to access to the manager-level functions which could potentially spell trouble for the user.

Our goal is to create library management software.

This report will show you which tests have been completed to complete the project.

And we are going to step through a, b, and c and try to achieve a high-quality project. This is a document that tells you what bugs were and how to fix them.  
We start with A test first. This is a test that verifies the functionality of the function.

Next is the B test and tests for problems that may appear when combined.  
The final is a C test and finally identifies all problems. This is the last time you can now pass the project to the client.  
Identifying all the functions is the goal of the test, and we will document all the functions broken down by the larger categories rather than the smaller ones. The version starts from 1.0, the changes of a and b increase by 0.1, and the change of c increases by 1.

All documents are managed through the git Hub.

1. **Test Plan**

The test plan for the library management system can be summed up into our three major goals: reliability, security, and usability.

Reliability is the first of the goals. The software must be able to do the requested functions and perform in a predictable way. The second goals is security. The program must provide the correct functionality to the user and the administrator who authorized to execute those functions. Lastly, the third and most important goal is usability.

We want to make sure our product does more the simply work; we want it to be usable.

Reliability and security testing can be accommodated by merely constructing a few test cases and comparing what the result should be versus what the result is.

Usability testing, however, is completely different. Usability testing would require some domain experts to use the software and perhaps even deploy the software in a library environment.

Due to the time constraints of the project we were unable to perform any formal usability testing.

Test cases were created to test adding, deleting, and editing both late fee information and users’ information that administrator mange. Specifically these test cases make certain that late fee information and users’ information that are stored and retrieved from the database correctly. Test cases were also generated to perform boundary testing on how many entries could be successfully added or updated.

In addition, test cases were created to verify the function of the compare class, which is used to validate input.

The table of test cases listed on the following page shows what kinds of tests were performed on the “add new user” function, the intended results, and the actual results.

1. **Unit Test**
2. **Unit Test #0   
   -Example of optimum situation**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Method | Input | Intend Result | Actual Result | Error test |
| Admin id&pw | Admin, 12345 | If user login  return false  If admin login  return true | True | EMB000019a47330 |
| Updating user info | User Info  Id,  pw,  name  birthday,  phone | If user set information such as 5 types of information should be inserted in user array list | Code,  name,  writer,  publisher,  stare | EMB000019a4732c |
| Loading user info | User Info  Id,  pw,  name  birthday,  phone | If admin add  information such as 5 types of information should be inserted in user array list | Code,  name,  writer,  publisher,  stare |  |
| Updating book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin set information such as 5 types of information should be inserted in book array list | Code,  name,  writer,  publisher,  stare | EMB000019a4732d |
| Loading book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin add information such as 5 types of information should be inserted in book array list | Code,  name,  writer,  publisher,  stare |  |
| Get fee | Delaytime,  user info, book info | If user wants to check the fee, Admin should show it | fee |  |

**2)Unit Test #1(06.04)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Method | Input | Intend Result | Actual Result | Error test |
| Admin id&pw | Admin, 12345 | If user login  return false  If admin login  return true | True | EMB000019a47330 |
| Updating user info | User Info  Id,  pw,  name  birthday,  phone | If user set information such as 5 types of information should be inserted in user array list | Null | When data was updated, the previous data was lost. Because Variables were initialized each time and as a result, information was taken from an array that had nothing. We modified the initialized variables to be stored sequentially in the array |
| Loading user info | User Info  Id,  pw,  name  birthday,  phone | If admin add  information such as 5 types of information should be inserted in user array list | Code,  name,  writer,  publisher,  stare |  |
| Updating book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin set information such as 5 types of information should be inserted in book array list | Overlapping value | We added a book info, but it went wrong with the array index. so we modified array index variable |
| Loading book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin add information such as 5 types of information should be inserted in book array list | Code,  name,  writer,  publisher,  stare |  |
| Get fee | Delaytime,  user info, book info | If user wants to check the fee, Admin should show it | Less computed value of fee | for-loop is wrong and the addition to the variable is wrong. So we modified the structure of for-loop and made it to perform the proper operation |

1. **Unit Test #2(06.05)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Method | Input | Intend Result | Actual Result | Error test |
| Admin id&pw | Admin, 12345 | If user login  return false  If admin login  return true | True but wrong | we added data to admin’s password in addition to password(ex)real pw=12345, input pw=1234567) . we resized the size of string. |
| Updating user info | User Info  Id,  pw,  name  birthday,  phone | If user set information such as 5 types of information should be inserted in user array list | Code,  name,  writer,  publisher,  stare | EMB000019a4732c |
| Loading user info | User Info  Id,  pw,  name  birthday,  phone | If admin add  information such as 5 types of information should be inserted in user array list | Some missing value | User subscribed on the normal path, but the info did not get properly. There was a problem with the array that already existed and we modified the array. |
| Updating book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin set information such as 5 types of information should be inserted in book array list | Code,  name,  writer,  publisher,  stare | EMB000019a4732d |
| Loading book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin add information such as 5 types of information should be inserted in book array list | Code,  name,  writer,  publisher,  stare |  |
| Get fee | Delaytime,  user info, book info | If user wants to check the fee, Admin should show it | fee |  |

1. **Integration Test(06.06)**
2. **Integration Test #1**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Method | Input | Intend Result | Actual Result | Error test |
| Admin id&pw | Admin, 12345 | If user login  return false  If admin login  return true | True | EMB000019a47330 |
| Updating user info | User Info  Id,  pw,  name  birthday,  phone | If user set information such as 5 types of information should be inserted in user array list | Code,  name,  writer,  publisher,  stare | EMB000019a4732c |
| Loading user info | User Info  Id,  pw,  name  birthday,  phone | If admin add  information such as 5 types of information should be inserted in user array list | Code,  name,  writer,  publisher,  stare |  |
| Updating book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin set information such as 5 types of information should be inserted in book array list | Code,  name,  writer,  publisher,  stare | After admin newly entered the book information, user looked at the book but failed. Because we did not get the information of the book again when user entered the information. if |
| Loading book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin add information such as 5 types of information should be inserted in book array list | Code,  name,  writer,  publisher,  stare | User borrowed the book that other user already borrowed.  Because if-statement was incorrectly identified and fixed it. |
| Get fee | Delaytime,  user info, book info | If user wants to check the fee, Admin should show it | fee |  |

1. **Integration Test #2(06.08)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Method | Input | Intend Result | Actual Result | Error test |
| Admin id&pw | Admin, 12345 | If user login  return false  If admin login  return true | True | EMB000019a47330 |
| Updating user info | User Info  Id,  pw,  name  birthday,  phone | If user set information such as 5 types of information should be inserted in user array list | Code,  name,  writer,  publisher,  stare | The user has completed the subscription in the normal way.  However, the information was not retrieved when the admin inquired. This was also a problem because we did not bring back the information and it was revised. |
| Loading user info | User Info  Id,  pw,  name  birthday,  phone | If admin add  information such as 5 types of information should be inserted in user array list | Code,  name,  writer,  publisher,  stare |  |
| Updating book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin set information such as 5 types of information should be inserted in book array list | Code,  name,  writer,  publisher,  stare | EMB000019a4732d |
| Loading book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin add information such as 5 types of information should be inserted in book array list | Code,  name,  writer,  publisher,  stare |  |
| Get fee | Delaytime,  user info, book info | If user wants to check the fee, Admin should show it | fee |  |

1. **Full Test**
2. **Full Test #1(06.09)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Method | Input | Intend Result | Actual Result | Error test |
| Admin id&pw | Admin, 12345 | If user login  return false  If admin login  return true | True | EMB000019a47330 |
| Updating user info | User Info  Id,  pw,  name  birthday,  phone | If user set information such as 5 types of information should be inserted in user array list | Code,  name,  writer,  publisher,  stare | EMB000019a4732c |
| Loading user info | User Info  Id,  pw,  name  birthday,  phone | If admin add  information such as 5 types of information should be inserted in user array list | Code,  name,  writer,  publisher,  stare | We could not find any information that contained part of the title of the book.  we will have to change the way you compare and judge something that is not entirely the same.  This part seems to need consultation with the team. |
| Updating book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin set information such as 5 types of information should be inserted in book array list | Code,  name,  writer,  publisher,  stare | EMB000019a4732d |
| Loading book info | Book Info  Code,  name,  writer,  publisher,  stare | If admin add information such as 5 types of information should be inserted in book array list | Code,  name,  writer,  publisher,  stare |  |
| Get fee | Delaytime,  user info, book info | If user wants to check the fee, Admin should show it | fee |  |