

Assignment 1 (Group Project):  
A Library System

(ALS)

# (ALS)



Membership



Books



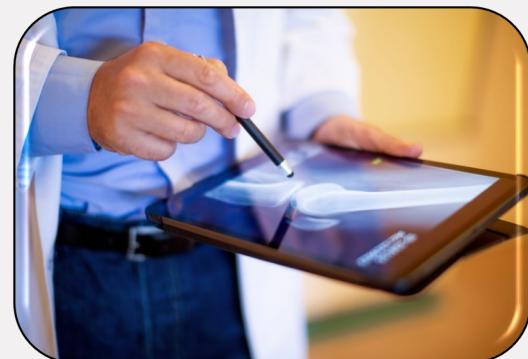
Loans



Reservations



Fines



Reports

# (ALS)

- Membership
  - 1. Creation
  - 2. Deletion
  - 3. Update
- Books
  - 4. Acquisition
  - 5. Withdrawal
- Loans
  - 6. Book Borrowing
  - 7. Book Return
- Reservations
  - 8. Make a Reservation
  - 9. Cancel a Reservation
- Fines
  - 10. Fine Payment
- Reports
  - 11. Search
  - 12. Books on Loan
  - 13. Books on Reservation
  - 14. Outstanding Fines
  - 15. Books on Loan to Member

Select one of the Options below:



**1. Creation**

Membership creation

**2. Deletion**

Membership deletion

**3. Update**

Membership update

**Back To Main Menu**

## To Create Member, Please Enter Requested Information Below:

Membership ID

A unique alphanumeric id that distinguishes every member

Name

Enter member's name

Faculty

e.g., Computing, Engineering, Science, etc.

Phone Number

e.g., 91234567, 81093487, 92054981, etc

Email Address

e.g., ALSUser@als.edu

Create Member

Back to Main Menu



To Create M

on Below:

Membership ID

a un

Name

enter

Faculty

e.g.,

Phone Number

e.g.,

Email Address

e.g., ALSuser@als.edu

Success!

ALS Membership created.

Back to  
Create  
Function



Create Member

Back to Main Menu

To Create M

on Below:

Membership ID

a un

Name

enter

Faculty

e.g.,

Phone Number

e.g.,

Email Address

e.g., ALSUser@als.edu

# Error!

Member already exist; Missing or  
Incomplete fields.

Back to  
Create  
Function

Create Member

Back to Main Menu

To Delete Member, Please Enter Membership ID:

Membership ID

A unique alphanumeric id that distinguishes every member

Delete Member

Back to  
Membership Menu

## Please Confirm Details to Be Correct

Member ID

Name

Faculty

Phone Number

Email address

Confirm  
Deletion

Back to  
Delete Function

Delete Member

Back to  
Membership Menu

Membership ID

Member has loans,  
reservations or outstanding fines.

Back to  
Delete  
Function

Delete Member

Back to  
Membership Menu

To Update a Member, Please Enter Membership ID:

Membership ID

A unique alphanumeric id that distinguishes every member

Update Member

Back to  
Membership Menu

## Please Enter Requested Information Below:

**Membership ID**

A unique alphanumeric id that distinguishes every member

**Name**

Update member's name

**Faculty**

Update Faculty.. Computing, Engineering, Science, etc.

**Phone Number**

Update Phone number

**Email Address**

Update email address

**Update Member**

**Back to  
Membership Menu**



## Please Confirm Updated Details to Be Correct

Member ID

Name

Faculty

Phone number

Email address

Confirm  
Update

Back to  
Update  
Function

Update Member

Membership Menu

PI

Membership ID  
Name  
Faculty  
Phone Number  
Email Address

Update  
Update  
Update  
Update  
Update email address

**Success!**

ALS Membership Updated.

[Create Another Member](#)   [Back to Update Function](#)

[Update Member](#)

[Back to Membership Menu](#)

Pl

ishes every member

Missing or  
Incomplete fields.

Back to  
Update  
Function

Update Member

Back to  
Membership Menu

Membership ID

Name

Faculty

Phone Number

Email Address

Update email address

Upd

Upd

Upd

Upd

Upd

# Error!

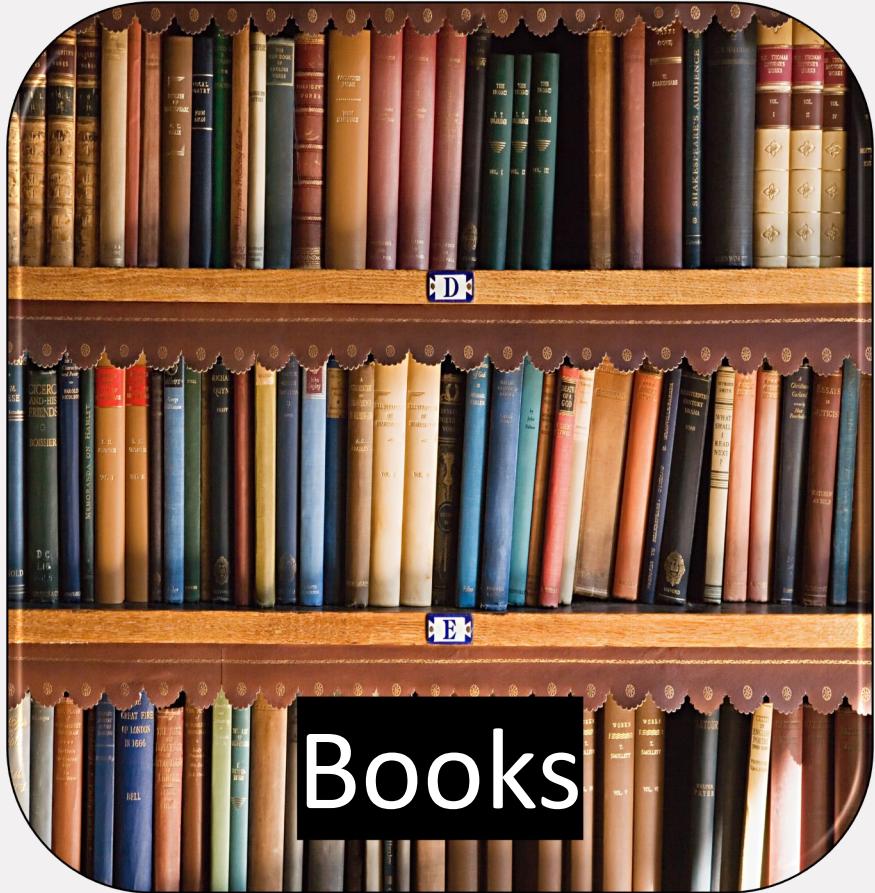
Missing or  
Incomplete fields.

Back to  
Update  
Function

Update Member

Back to  
Membership Menu

Select one of the Options below:



**4. Acquisition**

Book Acquisition

**5. Withdrawal**

Book Withdrawal

**Back To Main Menu**

## For New Book Acquisition, Please Enter Required Information Below:

|                  |  |
|------------------|--|
| Accession Number | Used to identify an instance of book           |
| Title            | Book Title                                     |
| Authors          | There can be multiple authors for a book       |
| ISBN             | ISBN Number                                    |
| Publisher        | Random House, Penguin, Cengage, Springer, etc. |
| Publication Year | Edition year                                   |

Add New Book



Back to Books Menu

## For New Book Acquisition, Please Enter Required Information Below:

Accession Number

Title

Authors

ISBN

Publisher

Publication Year

Success!

New Book added in Library.

Back to  
Acquisition  
Function

Add New Book

Back to Books Menu

**For New Book Acquisitions, Please Enter Required Information Below:**

|                  |         |
|------------------|---------|
| Accession Number | Used    |
| Title            | Book    |
| Authors          | There   |
| ISBN             | ISBN    |
| Publisher        | Rand    |
| Publication Year | Edition |

**Error!**

Book already added;  
Duplicate, Missing or  
Incomplete fields.

**Back to  
Acquisition  
Function**

**Add New Book**

**Back to Books Menu**

**To Remove Outdated Books From System, Please Enter Required Information Below:**

Accession Number

Used to identify an instance of book

Withdraw Book

Back to Books Menu

To Remove Outdated Books

Accession Number

Used

Withdraw Book

Information Below:

## Please Confirm Details to Be Correct

Accession Number

Title

Authors

ISBN

Publisher

Year

Confirm  
Withdrawal

Back to  
Withdrawal  
Function

Back to Books Menu

To Remove Outdated Books From System, Please Enter Required Information Below:

Accession Number

Used  
Books

Error!

Book is currently on Loan.

Return to  
Withdrawal  
Function

Withdraw Book

Back to Books Menu

To Remove Outdated Books From System, Please Enter Required Information Below:

Accession Number

Used  
Books

Error!

Book is currently Reserved.

Return to  
Withdrawal  
Function

Withdraw Book

Back to Books Menu

Select one of the Options below:



**6. Borrow**

Book Borrowing

**7. Return**

Book Returning

**Back To Main Menu**

## To Borrow a Book, Please Enter Information Below:

Accession Number

Used to identify an instance of book

---

Membership ID

A unique alphanumeric id that distinguishes every member

---

Borrow Book



Back to Loans Menu

To Borrow Books

Accession Number

Membership ID

Borrow Book

## Confirm Loan Details To Be Correct

Accession Number

Book Title

Borrow Date

Membership ID

Member Name

Due Date

Confirm  
Loan

Back to  
Borrow Function

Back to Loans Menu

To Borrow a Book, Please Enter Information Below:

Error!

Book currently on Loan until:

DD/MM/YYYY

[Back to  
Borrow Function](#)

Accession Number

Used

Membership ID

A uni

[Borrow Book](#)

[Back to Loans Menu](#)

To Borrow a Book, Please Enter Information Below:

Accession Number

Membership ID

Error!

Member loan quota exceeded.

Back to  
Borrow Function

every member

Borrow Book

Back to Loans Menu

To Borrow a Book, Please Enter Information Below:

Accession Number

Membership ID

Error!

Member has outstanding fines.

Back to  
Borrow Function

every member

Borrow Book

Back to Loans Menu

## To Return a Book, Please Enter Information Below:

Accession Number

Used to identify an instance of book

Return date

Date of book return

Return Book

Back to Loans Menu



## Confirm Return Details To Be Correct

Accession Number

Book Title

Membership ID

Member Name

Return Date

Fine: \$X

Confirm  
Return

Back to  
Return Function

Return Book

Back to Loans Menu

To Return a Book, Please Enter Information Below:

Accession Number

Return date

Return Book

Back to Loans Menu

Error!

Book returned successfully  
but has fines.

Back to  
Return Function

Select one of the Options below:



**8. Reserve a Book**

Book Reservation

**9. Cancel Reservation**

Reservation Cancellation

**Back To Main Menu**

## To Reserve a Book, Please Enter Information Below:

Accession Number

Used to identify an instance of book

Membership ID

A unique alphanumeric id that distinguishes every member

Reserve date

Date of book reservation

**Reserve Book**

**Back to  
Reservations Menu**



To Reserve a Book Please Enter Information Below:

## Confirm Reservation Details To Be Correct

Accession Number

Book Title

Membership ID

Member Name

Reserve Date

Confirm  
Reservation

Back to  
Reserve  
Function

Accession Number

Membership ID

Reserve date

Reserve

every member

Back to  
Options Menu

## To Reserve a Book, Please Enter Information Below:

Accession Number

Used

Membership ID

A un

Reserve date

Date

**Reserve Book**

# Error!

Member currently has  
2 Books on Reservation.

every member

**Back to  
Reserve Function**

**Back to  
Reservations Menu**

## To Reserve a Book, Please Enter Information Below:

Accession Number

Used  
by

Membership ID

A un  
der

Reserve date

Date

**Reserve Book**

# Error!

Member has Outstanding Fine of:  
\$X

**Back to  
Reserve Function**

**Back to  
Reservations Menu**

## To Cancel a Reservation, Please Enter Information Below:

Accession Number

Used to identify an instance of book

---

Membership ID

A unique alphanumeric id that distinguishes every member

---

Cancel Date

Date of Reservation Cancellation

---

**Cancel Reservation**



**Back to  
Reservations Menu**

To Cancel A Reservation Please Enter Information Below:

Accession Number

Membership ID

Cancel Date

Cancel Rese

## Confirm Cancellation Details To Be Correct

Accession Number

Book Title

Membership ID

Member Name

Cancellation Date

Confirm  
Cancellation

Back to  
Cancellation  
Function

every member

Back to  
Reservations Menu

To Cancel a Reservation, Please Enter Information Below:

Accession Number

Used  
by

Membership ID

A un  
der

Cancel Date

Date  
of

**Cancel Reservation**

**Error!**

Member has no such reservation.

every member

**Back to  
Cancellation  
Function**

**Back to  
Reservations Menu**

Select one of the Options below:



Fines

10. Payment

Fine Payment

Back To Main Menu

## To Pay a Fine, Please Enter Information Below:

Membership ID

A unique alphanumeric id that distinguishes every member

Payment Date

Date Payment Received

Payment Amount

Total fine amount

Pay Fine

Back to  
Fines Menu

## Please Confirm Details to Be Correct

Payment Due: Member  
\$X ID

Exact Fee Only

Payment Date

Confirm Payment

Back to Payment Function

Pay Fine

## To Pay a Fine, Please Enter Information Below:

Membership ID

A ur

Payment Date

Date

Payment Amount

Total

**Pay Fine**

# Error!

Member has no fine.

**Back to  
Payment  
Function**

**Back to  
Fines Menu**

## To Pay a Fine, Please Enter Information Below:

Membership ID

A ur

Payment Date

Date

Payment Amount

Total

**Pay Fine**

# Error!

Incorrect fine payment amount.

**Back to  
Payment  
Function**

**Back to  
Fines Menu**

## Select one of the Options below:



### 11. Book Search

A member can perform a search on the collection of books.

### 12. Books on Loan

This function displays all the books currently on loan to members.

### 13. Books on Reservation

This function displays all the books that members have reserved.

### 14. Outstanding Fines

This function displays all the books that members have reserved.

### 15. Books on Loan to Member

This function displays all the books a member identified by the membership id has borrowed.

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**Search based on one of the categories below:**

Title

Book Name

Authors

There can be multiple authors for a book

ISBN

ISBN Number

Publisher

Random House, Penguin, Cengage, Springer, etc.

Publication Year

Edition year

Search Book

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Reports Menu



Search based on one of the categories below:

## Book Search Results

| Accession Number | Title | Authors | ISBN | Publisher | Year |
|------------------|-------|---------|------|-----------|------|
|                  |       |         |      |           |      |
|                  |       |         |      |           |      |
|                  |       |         |      |           |      |
|                  |       |         |      |           |      |

Back To  
Search Function

Search Book

Reports Menu

## Books on Loan Report

| Accession Number | Title | Authors | ISBN | Publisher | Year |
|------------------|-------|---------|------|-----------|------|
|                  |       |         |      |           |      |
|                  |       |         |      |           |      |
|                  |       |         |      |           |      |
|                  |       |         |      |           |      |

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# Books on Reservation Report

| Accession Number | Title | Membership ID | Name |
|------------------|-------|---------------|------|
|                  |       |               |      |
|                  |       |               |      |
|                  |       |               |      |
|                  |       |               |      |

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## Members With Outstanding Fines

| Membership ID | Name | Faculty | Phone Number | Email Address |
|---------------|------|---------|--------------|---------------|
|               |      |         |              |               |
|               |      |         |              |               |
|               |      |         |              |               |
|               |      |         |              |               |

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## Books on Loan to Member

Membership ID

A unique alphanumeric id that distinguishes every member

Search Member

Back to  
Reports Menu

## Books on Loan to Member

| Accession Number | Title | Authors | ISBN | Publisher | Year |
|------------------|-------|---------|------|-----------|------|
|                  |       |         |      |           |      |
|                  |       |         |      |           |      |
|                  |       |         |      |           |      |
|                  |       |         |      |           |      |

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