



— By Anthony Soto, Juan Rojas,
Jesus Mendoza —

Introduction

College book problems:

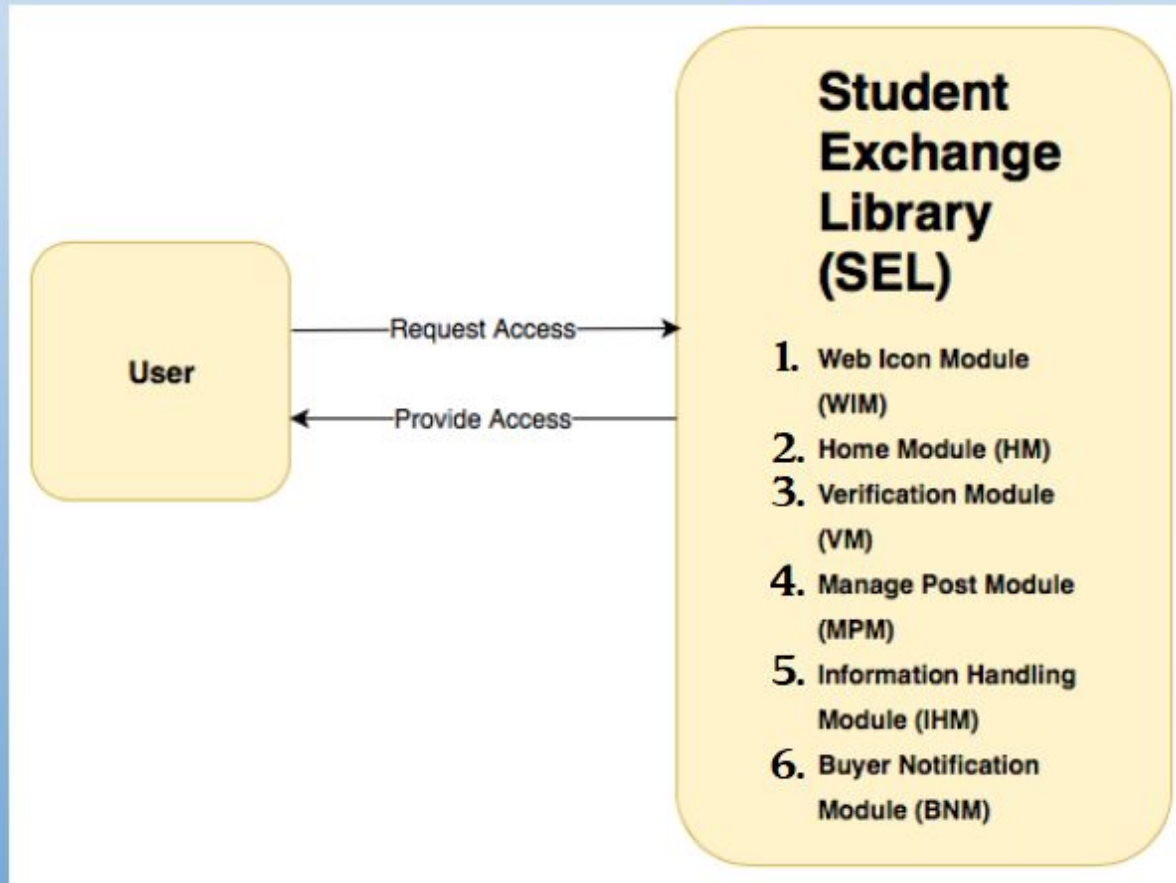
- High cost to buy or rent.
- Selling or buying options are restricted to personal circle, big businesses, or unknown individuals.

SEL:

- SEL an online community for exchanging books.
- SEL is composed of only verified students and staff.
- SEL gives the power to sell or buy at a desired price.

college books be like
\$375.99 new
\$375.00 used

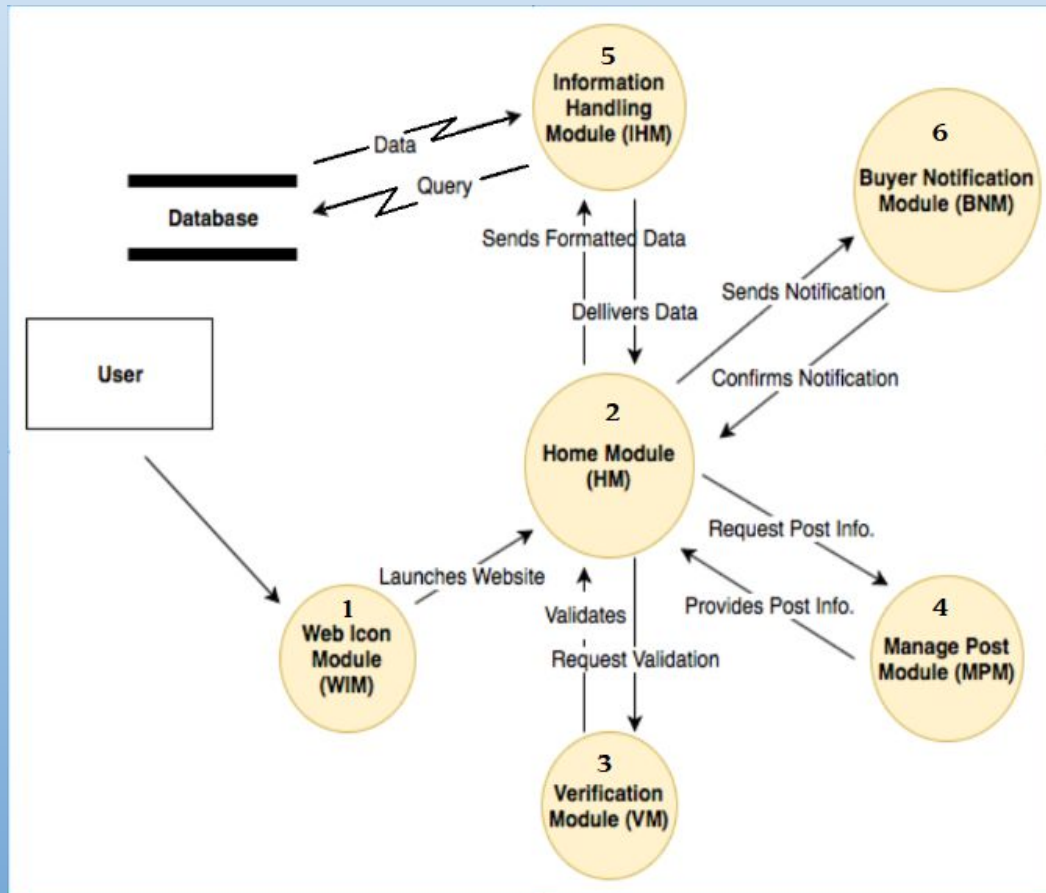
DFD-0



Core Design

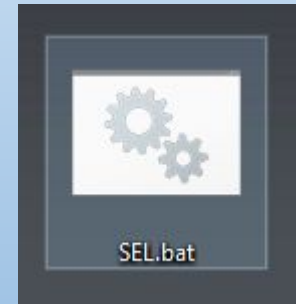
- Users accesses web application through icon on desktop.
- Users are redirected to SEL Home Module.
- Once in Home Module users are restricted to limited access of the website.
- Granting full access to the other modules is accomplished by signing up for SEL services and verifying users Cal State LA email address.
- Once signed in to website users can post, browse books in detail with information of seller.

DFD-1



Web Icon Module (WIC)

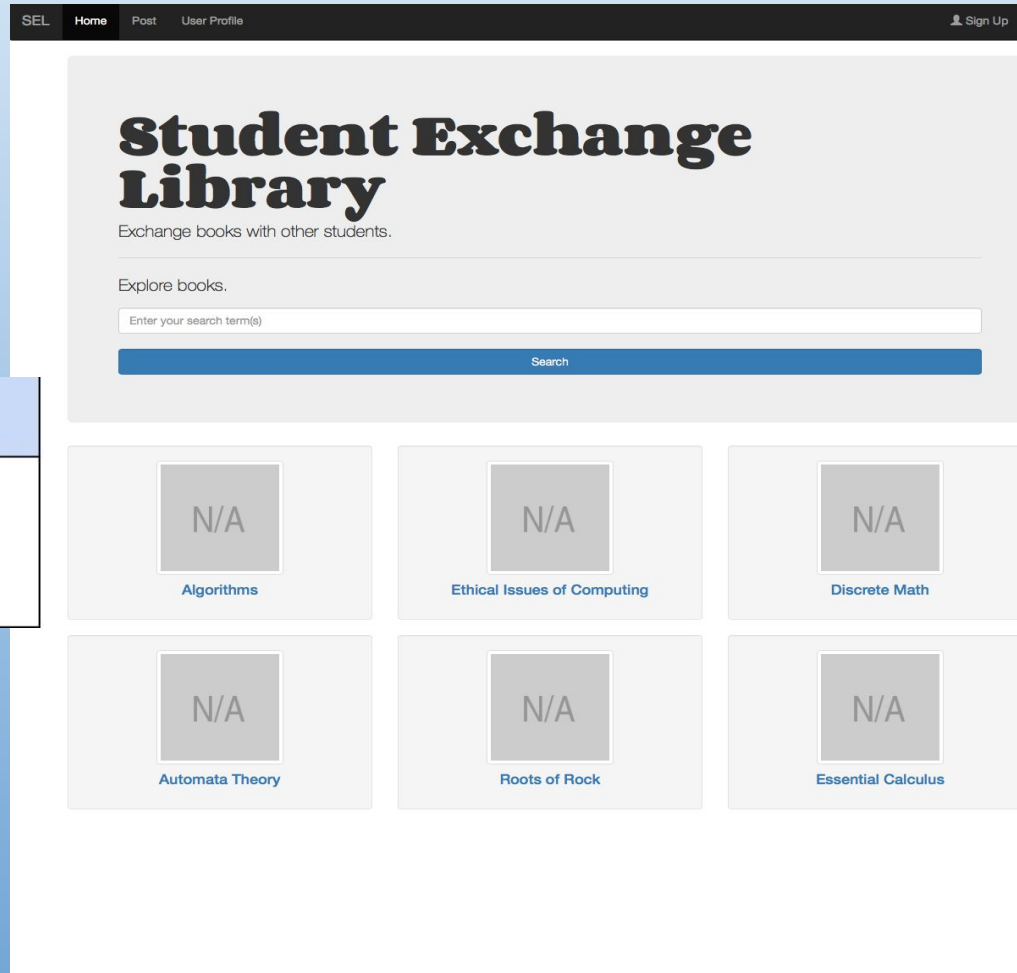
4.1	Web Icon Module (WIM)
4.1.1	The WIM shall launch SEL web program.



```
2 @echo off
3 start firefox.exe "cs3.calstatela.edu:8080/cs3220stu49/Home"
```

Home Module (HM)

4.2	Home Module (HM)
4.2.1	The HM shall facilitate navigation to other pages on SEL by providing links to prioritized pages, recent books, and have a search box.



Home Module (Code)

```
15 <nav class="navbar navbar-inverse">
16 <div class="container-fluid">
17   <div class="navbar-header">
18     <a class="navbar-brand" href="Home">SEL</a>
19   </div>
20   <ul class="nav navbar-nav">
21     <li><a href="Home">Home</a></li>
22     <li><a href="Post">Post</a></li>
23     <li><a href="Profile">User Profile</a></li>
24   </ul>
25   <ul class="nav navbar-nav navbar-right">
26     <li class="active"><a href="SignUp"><span
27       class="glyphicon glyphicon-user"></span> Sign Up</a></li>
28     <li><a href="Login"><span class="glyphicon glyphicon-log-in"></span>
29       Login</a></li>
30   </ul>
31 </div>
32 </nav>
```


Verification Module

4.3	Verification Module (VM)	
4.3.1	The VM shall create a user profile.	Yes
4.3.2	The VM shall verify that the email provided is a valid Cal State LA email address.	Yes
4.3.3	The VM shall provide a standard login	Yes

Register SEL

First Name

Last Name

E-Mail (@calstatela.edu) only

Login

E-mail Address

Password

Verification Module (VM)

[SEL](#) [Home](#) [Post](#) [User Profile](#)

[Sign Up](#)

[Login](#)

Verification SEL

A 4 digit verification code has been sent to your email, please enter the code to complete your registration

Verification Code

Verify

Verification Module (code)

```
52 // verify it contains @calstatela.edu
53 boolean valid = email.toLowerCase().contains("@calstatela.edu");
54 if (!valid) {
55     response.sendRedirect("SignUp");
56     return;
57 }
```

```
35 // get parameters from Sign up form
36 String code = (String) getServletContext().getAttribute("code");
37 String codeEntered = request.getParameter("key");
38 boolean match = code.equals(codeEntered);
39
40 if(!match) {
41     response.sendRedirect("SignUp");
42     return;
43 }
```

Manage Post Module (MPM) add book

Post on SEL

Title

Ex. Analysis of Algorithms

Author's First Name

Ex. Micheal

Author's Last Name

Ex. Cohem

ISBN#

Ex. 123-1-1234-1234-1

Subject

Ex. Computer Science

Class


Ex. Computer Science

Price

Ex. 22

- ☐ New
☐ Good
☐ Fair
☐ Poor

Submit

4.4	Manage Post Module (MPM)
4.4.1	The MPM shall allow users to add books in SEL. 
4.4.2	The MPM shall allow users to delete their own books in SEL.

Manage Post Module (MPM) add book (code)

```
81 // writing database query
82 //add book
83 String sql = "INSERT INTO `Books` (`BookID`, `Price`, `Title`, `ISBN`, `AuthorFirst`, `AuthorLast`, `Subject`, `Class`, `State`) VALUES (0, ?, ?, ?, ?, ?, ?, ?, ?);";
84 c = DriverManager.getConnection(url, username, password);
85 PreparedStatement pstmt = c.prepareStatement(sql);
86
```

Manage Post Module (MPM) remove book

Books by John Doe

Title	Price	Post Date	Expiration Date	Delete
Algorithms	\$55.50	2018-05-02	2018-05-09	Delete
Ethical Issues of Computing	\$505.50	2018-05-02	2018-05-09	Delete
Discrete Math	\$55.50	2018-05-02	2018-05-09	Delete

Manage Post Module (MPM) remove book (code)

```
37 //delete book from database
38 String sql = "delete from Books where BookID = ?";
39 PreparedStatement pstmt = c.prepareStatement(sql);
40 pstmt.setInt(1, id);
41
42 pstmt.executeUpdate();
43
```

Information Handling Module (IHM)

Explore books.

Search

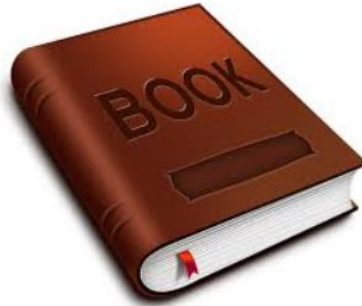
4.5	Information Handling Module (IHM)
4.5.1	The IHM shall provide the user with a search bar to filter search results.
4.5.2	The IHM shall provide the user with a description page for each book.

Information Handling Module (IHM) (code)

```
126 private boolean isMatch( Book book, String comparater ) {  
127  
128     if ( comparater.trim().length() == 0 || comparater == null )  
129         return false;  
130  
131     String query = comparater.toLowerCase();  
132  
133     if ( book.getTitle().toLowerCase().contains( query ) )  
134         return true;  
135     if ( book.getAuthorFirst().toLowerCase().contains( query ) )  
136         return true;  
137     if ( book.getAuthorLast().toLowerCase().contains( query ) )  
138         return true;  
139     if ( book.getSubject().toLowerCase().contains( query ) )  
140         return true;  
141     if ( book.getCourse().toLowerCase().contains(query) )  
142         return true;  
143     if ( book.getIsbn().equals(query) )  
144         return true;  
145  
146     return false;  
147 }
```

Information Handling Module (IHM) description page

SEL - Description of Book



Ethical Issues of Computing

by : Mark

Posted by :



Username: john-doe

E-mail: john@doe.com

Buy

Details

Title	Ethical Issues of Computing
Author	Sarge,Mark
Subject	Computer Science
Class	CS-3801
Condition	new
ISBN #	123456789
Price	\$505.5

Information Handling Module (IHM) description (code)

```
78 String sql = "SELECT DISTINCT *\n" +  
79             "FROM Users\n" +  
80             "JOIN Posts\n" +  
81             "USING (UserID)\n" +  
82             "JOIN Books\n" +  
83             "USING (BookID)\n" +  
84             "WHERE BOOKID = ?;";
```

Buyer Notification Module

Notification Sent SEL

An email has been sent to the seller to notify them you are interested in their book. You can also email them at:

jrojas44@calstatela.edu

4.6	Buyer Notification Module (BNM)
4.6.1	The BNM shall notify seller with buyers email address.

SEL-Buy Notice



sel.csula@gmail.com

Dear SEL user,

Someone is interested in buying your book,

Learning English by John Doe

Contact this email address to set up a place and time to meet up.

john@doe.com

Buyer Notification Module (Code)

```
try {  
  
    Message message = new MimeMessage(session);  
    message.setFrom(new InternetAddress("sel.csula@gmail.com"));  
    message.setRecipients(Message.RecipientType.TO, InternetAddress.parse(seller.getEmail()));  
    message.setSubject("SEL-Buy Notice");  
    message.setText("Dear SEL user," + "\n\n Someone is interested in buying your book, \n\n " + book.getTitle() + " by "  
+ book.getAuthorFirst() + " " + book.getAuthorLast() + " \n\n Contact this email address to set up a place and time to meet up."  
    + "\n\n" + user.getEmail());  
  
    Transport.send(message);  
}
```

Demonstration