

ELO

User Manual and Instruction Guide

09/13/2019

CS 440 Advanced System Design

List of Responsibility

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Table of Contents

ELO	1
List of Responsibility	2
Table of Contents	3
Getting Started	4
For Client	5
ELO log-in information	5
CPanel Log-in	5
Joomla & Sellacious Administrator Log-in	5
User Registration	5
Seller Registration	9
Edit User Profile Information	11
Product Management in Sellacious administrator	13
Add a Product	13
Edit a Product	17
Delete a Product	17
For Developers	19
Code modification in Joomla directories	19
Show Password Functionality	19
Gettysburg College email domain	19
Implementing a new Joomla component	19
Adding the search bar functionality	21
Allowing a user to sell	22
Allowing a user to view wishlist	23
View Recommended Items:	23
Compatibility Requirement	24
Installation Failure	24
Future Implementation	24
Alternative solutions for product management	24
Extend functionality	25
Push notifications for adding a new product	25
Renting books	25
More payment options	25
Moving away from Gettysburg sites	25
Useful Links	25

Getting Started

This document includes administrator information for our client to be able to manage the application after the project is closed, and instructions on navigating and perform certain tasks in Sellacious and Joomla, as it can take a while to figure out how to manipulate these applications. We also provide a “For developer” section with the hope to help the future developers who will work on the project understand our implementations. We also did not get to get all the functionalities that we wanted to implement done, thus we have documented those functionalities in this section as well.

We would like to start with some simple definitions the technology that we use and explain why we choose those technology.

[Joomla](#) is a free and open-source content management system for publishing web content, developed by Open Source Matters, Inc. It is built on a model–view–controller web application framework that can be used independently of the CMS (Wikipedia). We chose Joomla for three main reasons: it has an extension library that has a lot of free extensions; it requires programming knowledge to make back-end changes, but also has an intuitive interface for non-programmers administrators; and it is a quick and robust solution for building an applications with a lot of functionalities in a short amount of time.

[Joomla Extension Directory](#) is a library that contains thousands of (free and paid) official Joomla-compatible extensions, plugins, add-ons in all categories such as Social Web, Site Management, e-Commerce, and so on.

[Sellacious](#) is an open-source e-commerce and marketplace software built on Joomla. Of course you will still have to download, install and obtain a license like every other software. We chose Sellacious mainly for its multi-vendor feature, which only a handful number of free Joomla extensions have. Sellacious also have access level restrictions for different group of users which, we will see later on, is very effective in our application.

[Blastchat](#) is a web chat hosting service that can be implemented as a Joomla extension. We use this to create our in-app messaging functionality. We choose Blastchat as it has a demo website so we can ensure it has the features we need. It also has a Support site, which we fortunately have not to use, but it is there if we ever need it.

[PayPal](#) is a worldwide online payments system that supports online money transfers and serves as an electronic alternative to traditional paper methods like checks and money orders (Wikipedia). PayPal is a safe and secure payment solution for a prototype version that still requires a lot of testing and is not yet ready for handling card data and security encryption.

For Client

ELO log-in information

CPanel Log-in

Site: <http://elogroup.sites.gettysburg.edu:2082/>

Username: elogrp

Password: U&c*cI9vV8*F

Joomla & Sellacious Administrator Log-in

Site: <http://elogroup.sites.gettysburg.edu/sellacious/>

Username: eloadmin

Password: nn?X1lu.jgkp

User Registration

This section describes how a new user would register to become an ELO user.

1. Go to ELO Homepage. Click on “Sign Up”.
2. Fill in information for all required fields (and optional field if desired). Note that the user have to use his/her Gettysburg College’s email address.
3. Click on “Register”
4. The user should be redirected to a registration confirmation page with the message “Your account has been created and an activation link has been sent to the email address you entered. Note that you must activate the account by selecting the activation link when you get the email before you can log in.”
5. Go to user’s email and click on the activation link.
6. The user will be redirected to the log-in page with the message “Your account has been activated. You can now log in using the username and password you chose during the registration.”
7. Enter the username and password. Click on “Log in”
8. The user should now be logged in. The user should see his/her profile and student information. The user is now an ELO user.

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[Sign Up](#)[Log In/ Log Out](#)

User Registration

* Required field

Your Name *

Username *

Password *

Confirm Password *

Gettysburg College Email Address *

Confirm Email Address *

Student Info

Class Year (optional)

Screen 01: User Registration screen shows the required and optional fields that a new user have to fill in

ELO: Textbook Solutions

[Sign Up](#)[Log In/ Log Out](#)

Message

Your account has been created and an activation link has been sent to the email address you entered. Note that you must activate the account by selecting the activation link when you get the email before you can login.

Screen 02: Registration confirmation screen after a user click on “Register”

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Message



Your Account has been activated. You can now log in using the username and password you chose during the registration.

Username *

Password *

Show Password

Remember me

☐

Log in



Screen 03: Account activation confirmation screen after a user has activated his/her account by clicking in the activation link.

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[Sign Up](#)

[Log In/ Log Out](#)

Username *

Password *

Remember me ☐

[Forgot your password?](#)

[Forgot your username?](#)

[Don't have an account?](#)

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[Back to Top](#)

Screen 04: Log in screen for registered user

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[Log In/ Log Out](#)

[Contact Us](#)

Your ELO

[My Profile](#)
[My Shopping Cart](#)
[My Orders](#)
[My Bookstore](#)
[My Wishlist](#)
[Become a Seller](#)
[Sell on ELO](#)
[All Books](#)
[Report A Complaint](#)
[Message another User](#)
[Message Inbox](#)
[Search Bar](#)

Profile

Your Name	Jazmin Reynoso Ortiz
Username	Jazmin
Registered Date	Tuesday, 05 November 2019
Last Visited Date	Tuesday, 05 November 2019

Student Info

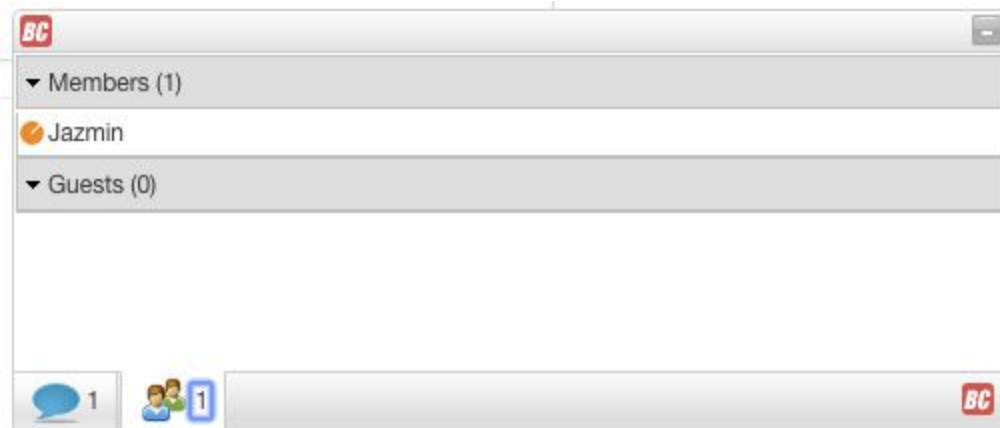
Declare your class year, Major/Minor, class taking

Second Major	No Information Entered
Minor	No Information Entered
Class Year	2020
Major	No Information Entered
Second Minor	No Information Entered
Class1	No Information Entered
Class2	No Information Entered
Class3	No Information Entered
Class4	No Information Entered

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[Back to Top](#)

Screen 05: Profile screen after the user has successfully logged in



Screen 06: Another indicator of successful log-in is when your username appear on the chat bar

Seller Registration

This section describes how a registered user would register to become a seller in Sellacious (in turn, being able to use ELO for selling and buying textbooks)

1. Navigate to the left side bar and click on “Become a Seller”
2. Enter all required fields, optionally upload an avatar photo and provide a phone number, check the Terms and Conditions checkbox.
3. User will be redirected to seller confirmation page with the message “Seller saved successfully”
4. User should also receive a seller confirmation email from Sellacious in the email address they have provided.

Note that user only have to log-in to Sellacious with their username and password once during the session.

A screenshot of the 'ELO: Textbook Solutions' website. The page has a header with the title 'ELO: Textbook Solutions' and links for 'Log In/ Log Out' and 'Contact Us'. On the left, there's a sidebar titled 'Your ELO' with links like 'My Profile', 'My Shopping Cart', 'My Orders', 'My Bookstore', 'My Wishlist', 'Become a Seller', 'Sell on ELO', 'All Books', 'Report A Complaint', 'Message another User', 'Message Inbox', and 'Search Bar'. The main content area is titled 'Basic Information' and contains a registration form. The form fields are: 'Name' (filled with 'Jazmin Reynoso Ortiz'), 'Username *' (filled with 'Jazmin'), 'Email' (filled with 'reynja01@gettysburg.edu'), 'Password *' (empty), 'Repeat Password *' (empty), 'User Avatar' (with an 'Upload...' button), and 'Mobile Number' (empty). At the bottom of the form, there's a 'Terms & Conditions *' section with a checkbox and the text 'I've read and I agree to the Terms & conditions.'

Screen 07: Seller registration form

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[Log In/ Log Out](#)[Contact Us](#)

Your ELO

- [My Profile](#)
- [My Shopping Cart](#)
- [My Orders](#)
- [My Bookstore](#)
- [My Wishlist](#)
- [Become a Seller](#)
- [Sell on ELO](#)
- [All Books](#)
- [Report A Complaint](#)
- [Message another User](#)
- [Message Inbox](#)
- [Search Bar](#)

Message

Seller saved successfully

[×](#)

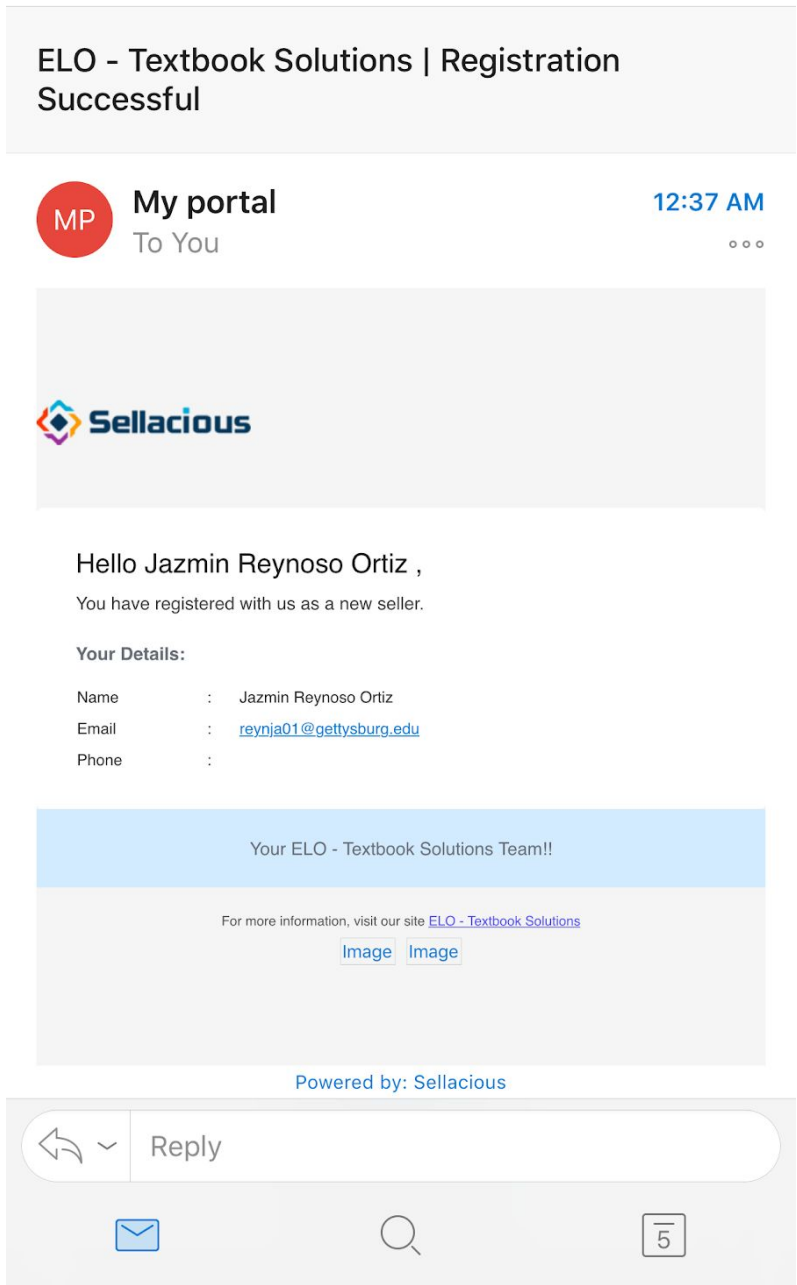
Complete!

Your registration as a seller is complete.

This shop is powered by: Sellacious



Screen 08: Seller registration confirmation page after a user has been registered as a seller



Screen 09: Confirmation email that a user will receive after successful seller registration

Edit User Profile Information

This section describes how a registered user would access and edit their profile on the front-end of the ELO website.

1. Navigate to the left side bar and click-on “My profile”
2. Click the “Edit Profile” button on the right.
3. All the fields can be edited except the username.
4. For the text fields such as the classes and Name, type in the appropriate information.
5. For the other fields such as the class year, major, minor, click on the bar and select the one you want.
6. Click submit for saving the profile changes, click cancel to return to the profile page without saving.

Profile

[Edit Profile](#)

Name: Tao Shi
Username: shita025
Registered Date: Wednesday, 16 October 2019
Last Visited Date: Friday, 15 November 2019

Student Info

Declare your class year, Major/Minor, class taking

Class Year: 2020
Major: Computer Science BS
Second Major: None
Minor: None

Screen 10: The user's profile page

Edit Your Profile

Name *	
<input type="text" value="Tao Shi"/>	
Username	
<input type="text" value="shita025"/>	
Password	Confirm Password
<input type="password" value=""/>	<input type="password" value=""/>
Email Address *	Confirm Email Address *
<input type="text" value="shita01@gettysburg.edu"/>	<input type="text" value="shita01@gettysburg.edu"/>

Student Info

Declare your class year, Major/Minor, class taking

Class Year	Major
<input type="text" value="2020"/>	<input type="text" value="Computer Science BS"/>
Second Major	Minor
<input type="text" value="None"/>	<input type="text" value="None"/>
Second Minor	Class1
<input type="text" value="None"/>	<input type="text" value="a"/>
Class2	Class3
<input type="text" value=""/>	<input type="text" value=""/>
Class4	
<input type="text" value=""/>	

Screen 11: The user's profile editing page

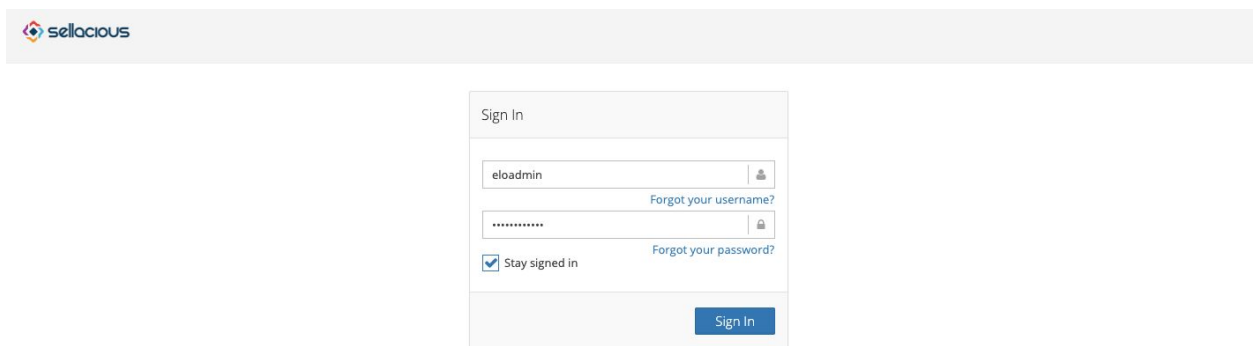
Product Management in Sellacious administrator

In this section we will go over the instructions to perform basic product manipulation in Sellacious in this prototype version.

Add a Product

This section describes how a registered user would add a new book into Sellacious' product catalogue, in turn adding the product into the web application front-end.

1. Navigate to the left side bar and click-on “Sell on ELO”
2. User will be redirected to Sellacious's login portal. Enter your username and password and login to Sellacious.
3. Click on “New Product”
4. In “Basic Information” fill in “Product Category”, “Product Name”, “Short Description” (the user can add additional information on book's condition details, book pick-up location, courses which use the book, etc. in “Short Description”)
5. Upload primary image and product images.
6. Go to section “Specifications”, fill in the book ISBN number and the related majors that the book can be used for.
7. Go to section “Seller Specific”, adjust listing type (New or Used)
8. Go to section “Pricing” and set the product's type
9. Click “Save & Close”. The product should now be saved in Sellacious's product catalogue, and should appear on the menu item “All Books” of the web application front-end.



Sign In

eloadmin

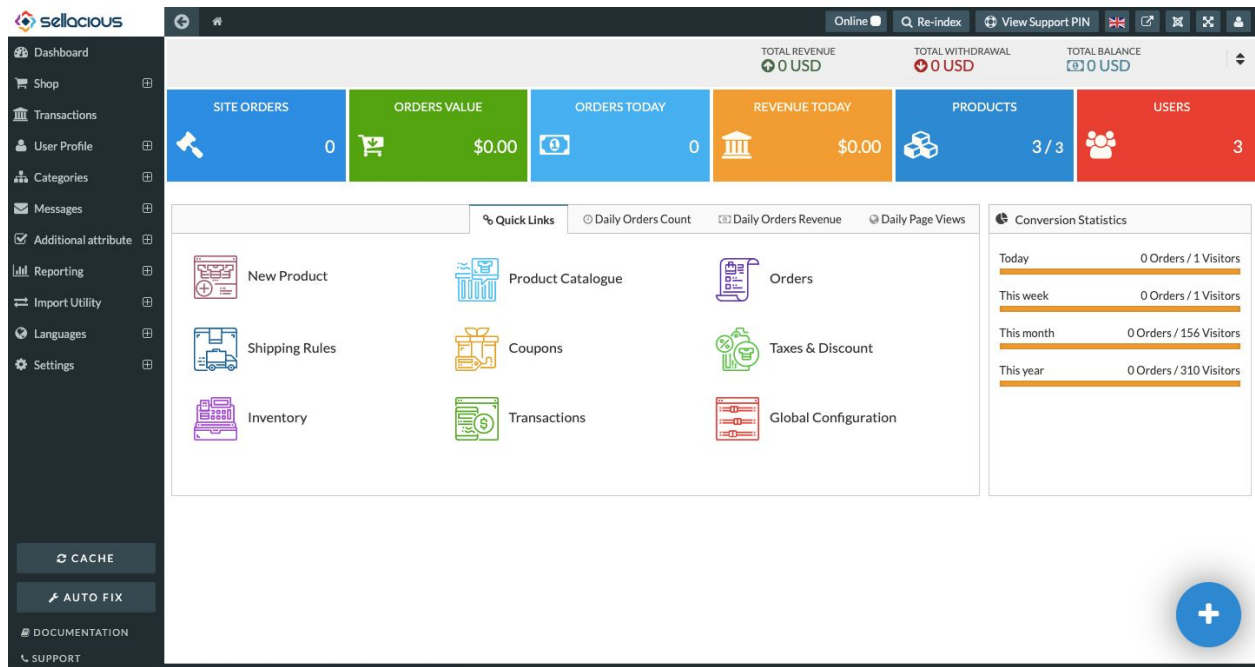
Forgot your username?

Forgot your password?

☒ Stay signed in

Sign In

Screen 12: Sellacious login portal



Screen 13: Sellacious landing page. User will have the option to add a new product in “New Product”.

Screen 14: The *Basic Information* section in creating a new product.

The screenshot shows the 'Product' management interface. The left sidebar contains a menu with items: Basic Information, Sellers, Physical Product, Specifications (highlighted), Variants, Seller Specific, Pricing, Shipping, SEO, and Related Products. The main content area is titled 'Currently editing for Seller: Super User'. It features a 'Book Info' section with two fields: 'ISBN Number' with the value '9781387815333' and 'Related Major' with the value 'Philosophy'. At the top right, there are buttons: 'Save', 'Save & Close', 'Save & New', and 'Close'.

Screen 15: The *Specifications* section in creating a new product.

The screenshot shows the 'Product' management interface with the 'Pricing' section selected in the sidebar. The main content area is titled 'Currently editing for Seller: Super User'. It features a 'Price Display' section with a 'Show defined price' button and a 'Fallback/Default Price' field set to '1\$00' with a 'USD' currency selector. Below this is a 'Variants Prices Modifiers' section with a message: 'No variants are defined for this product. When you add a variant they will be shown here for you to manage their pricing.' At the top right, there are buttons: 'Save', 'Save & Close', 'Save & New', and 'Cancel'.

Screen 16: The *Pricing* section in creating a new product.


The screenshot shows the 'Product' management interface with a green success message at the top: 'Success Product saved successfully'. The sidebar menu is the same as in the previous screens. The main content area is titled 'Currently editing for Seller: Super User'. It features a 'Book Info' section with two fields: 'ISBN Number' with the value '9781387815333' and 'Related Major' with the value 'Philosophy'. At the top right, there are buttons: 'Save', 'Save & Close', 'Save & New', and 'Close'.

Screen 17: “Product saved successfully” message on Product screen.

Product Catalogue






















✓ Success Product saved successfully

Search



Filters ▾

Clear

	Status ▾	Image	Title ▾
<input type="checkbox"/>			 The Republic of Plato (P11V0S211)  Category: <input type="text" value="Textbook"/>
<input type="checkbox"/>			 Algorithms (P10V0S211)  Category: <input type="text" value="Textbook"/>
<input type="checkbox"/>			 Algorithms (P10V0S216)  Category: <input type="text" value="Textbook"/>
<input type="checkbox"/>			 Intermediate Microeconomics (P9V0S211)  Category: <input type="text" value="Textbook"/>
<input type="checkbox"/>			 Linear Algebra (P8V0S211)  Category: <input type="text" value="Textbook"/>

Screen 18: After saving the product, the user will see the book appears on Product Catalogue section of Sellacious.

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Contact Us Log out

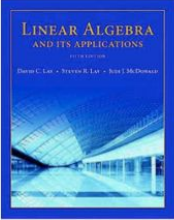
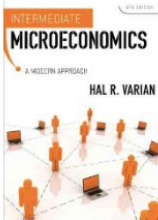
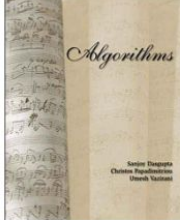
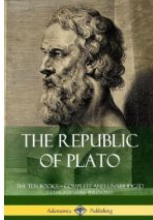
Search

Intermediate Microeconomics



Order By

Popular

 <p>Linear Algebra ★★★★★ 0.0 \$20.00 Add to Cart (1)</p>	 <p>Intermediate Microeconomics ★★★★★ 0.0 \$15.00 Add to Cart (1)</p>	 <p>Algorithms ★★★★★ 0.0 \$20.00 Add to Cart (1)</p>	 <p>The Republic of Plato ★★★★★ 0.0 \$15.00 Add to Cart (1)</p>
--	---	---	---

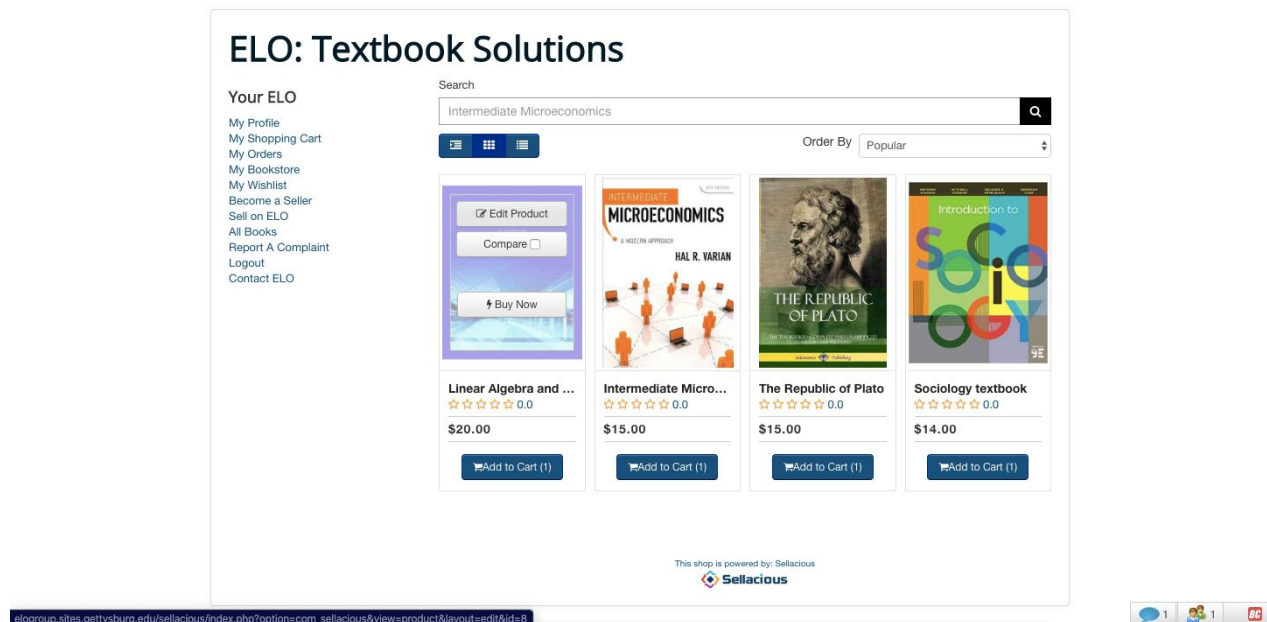
This shop is powered by: Sellacious



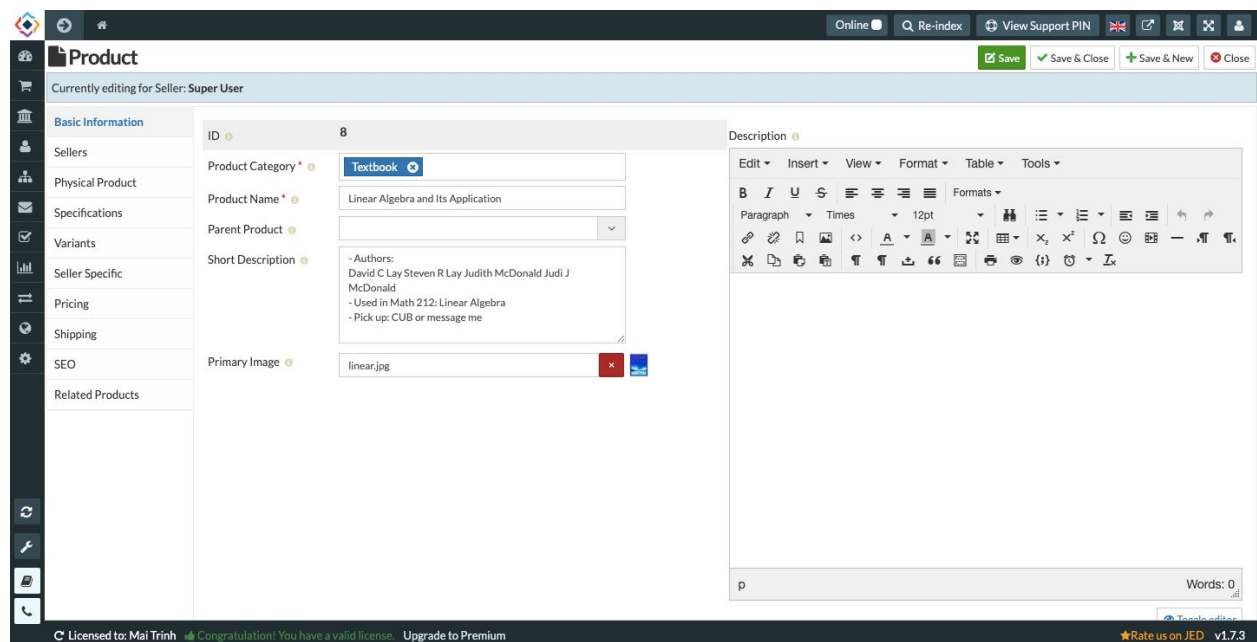
Screen 19: The new book can also be seen on the front-end store in Joomla.

Edit a Product

1. Go to the All Books page on the website
2. Hover over the book that you want to edit information. An “Edit Product” button will display. Select “Edit Product”. (You can only edit your own product. The button will only appear on hover if that product is created by you.)
3. The Product information displays in Sellacious.



Screen 20: “Edit Product” button appear on hover

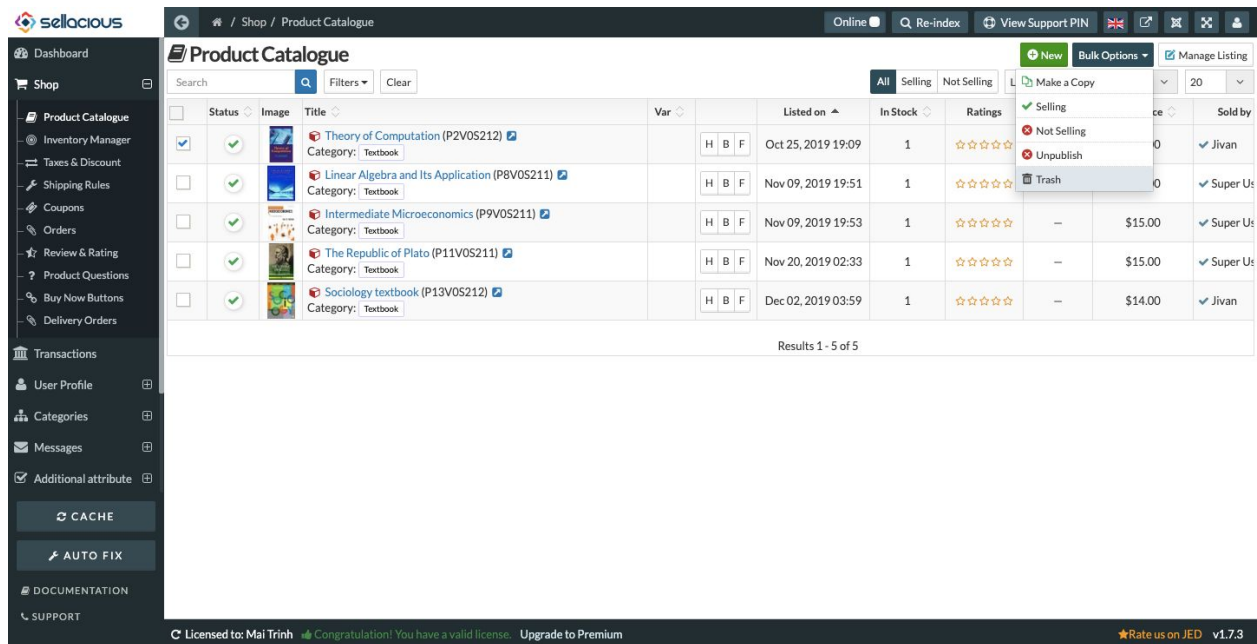


Screen 21: The user can edit the product in Sellacious.

Delete a Product

1. Go to the Product Catalogue within Sellacious
2. Select the check box beside the book you want to delete
3. Navigate to the drop down menu *Bulk Options*. Click on “Trash”.

- The confirmation message “1 product has been trashed” displays
Note: “Trashed” products are not permanently deleted from Sellacious. To find a trashed product and re-publish it, go to “Filters” drop down menu and select “Trashed” in -select status- option.

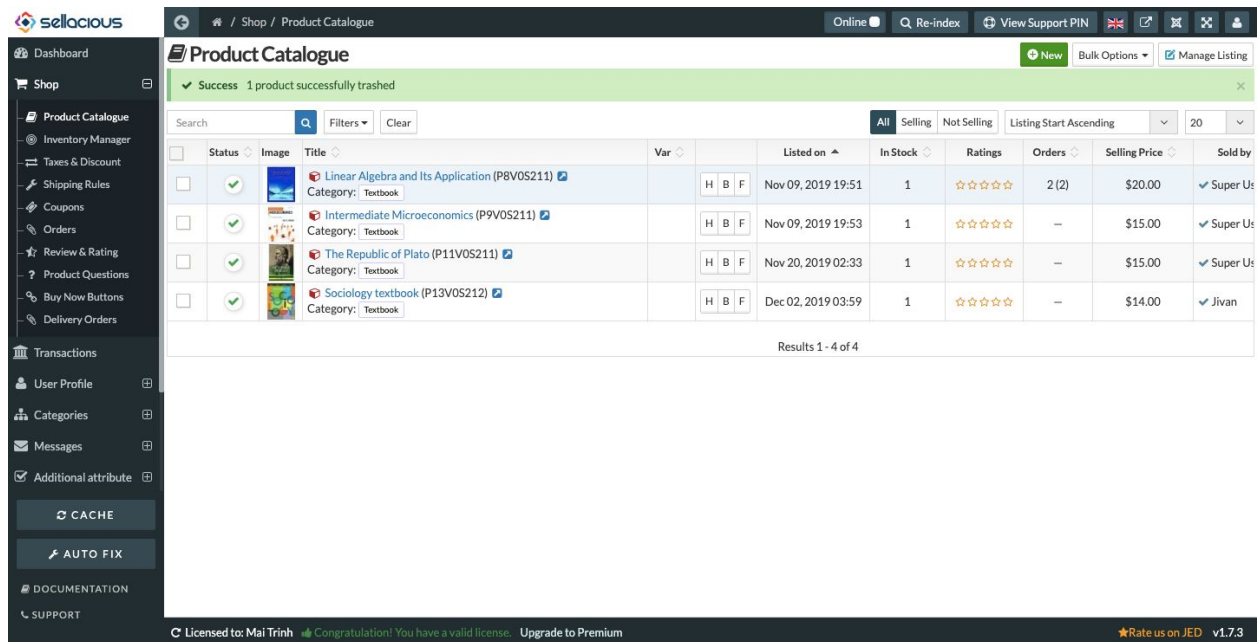


The screenshot shows the Sellacious Product Catalogue interface. The left sidebar contains navigation links for Dashboard, Shop, Product Catalogue, Inventory Manager, Taxes & Discount, Shipping Rules, Coupons, Orders, Review & Rating, Product Questions, Buy Now Buttons, Delivery Orders, Transactions, User Profile, Categories, Messages, Additional attribute, CACHE, AUTO FIX, DOCUMENTATION, and SUPPORT. The main content area displays a table of products with columns: Status, Image, Title, Var, Listed on, In Stock, Ratings, Orders, Selling Price, and Sold by. The 'Bulk Options' dropdown menu is open, showing options: Selling, Not Selling, Unpublish, and Trash. The 'Trash' option is highlighted.

Status	Image	Title	Var	Listed on	In Stock	Ratings	Orders	Selling Price	Sold by
<input checked="" type="checkbox"/>		Theory of Computation (P2V0S212) Category: Textbook	H B F	Oct 25, 2019 19:09	1	☆☆☆☆☆			Jivan
<input checked="" type="checkbox"/>		Linear Algebra and Its Application (P8V0S211) Category: Textbook	H B F	Nov 09, 2019 19:51	1	☆☆☆☆☆			Super Us
<input checked="" type="checkbox"/>		Intermediate Microeconomics (P9V0S211) Category: Textbook	H B F	Nov 09, 2019 19:53	1	☆☆☆☆☆		\$15.00	Super Us
<input checked="" type="checkbox"/>		The Republic of Plato (P11V0S211) Category: Textbook	H B F	Nov 20, 2019 02:33	1	☆☆☆☆☆		\$15.00	Super Us
<input checked="" type="checkbox"/>		Sociology textbook (P13V0S212) Category: Textbook	H B F	Dec 02, 2019 03:59	1	☆☆☆☆☆		\$14.00	Jivan

Results 1 - 5 of 5

Screen 22: The selected book to delete and the Trash option in the Bulk Options drop down menu.



The screenshot shows the Sellacious Product Catalogue interface after a product has been trashed. A green success message at the top states: "Success 1 product successfully trashed". The table of products is updated, showing the 'Linear Algebra and Its Application' book as trashed. The 'Bulk Options' dropdown menu is open, showing options: Selling, Not Selling, Unpublish, and Trash. The 'Trash' option is highlighted.

Status	Image	Title	Var	Listed on	In Stock	Ratings	Orders	Selling Price	Sold by
<input checked="" type="checkbox"/>		Linear Algebra and Its Application (P8V0S211) Category: Textbook	H B F	Nov 09, 2019 19:51	1	☆☆☆☆☆	2 (2)	\$20.00	Super Us
<input checked="" type="checkbox"/>		Intermediate Microeconomics (P9V0S211) Category: Textbook	H B F	Nov 09, 2019 19:53	1	☆☆☆☆☆		\$15.00	Super Us
<input checked="" type="checkbox"/>		The Republic of Plato (P11V0S211) Category: Textbook	H B F	Nov 20, 2019 02:33	1	☆☆☆☆☆		\$15.00	Super Us
<input checked="" type="checkbox"/>		Sociology textbook (P13V0S212) Category: Textbook	H B F	Dec 02, 2019 03:59	1	☆☆☆☆☆		\$14.00	Jivan

Results 1 - 4 of 4

Screen 23: Confirmation message that the book has been deleted / trashed.

For Developers

Code modification in Joomla directories

Show Password Functionality

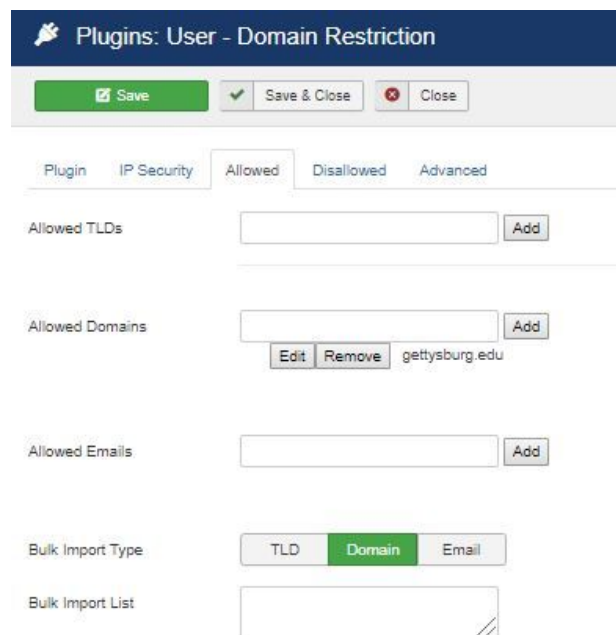
Since Joomla does not have an extension or plugin that can allow a user to toggle password visibility, we inserted a small snippet of JavaScript code to enable this function in the log-in module. This modification can be found in `public_html/components/com_users/views/login/tmpl/default_login.php`.

Gettysburg College email domain

To restrict the access of ELO to Gettysburg College students, we only allow users with with Gettysburg College email to register with the site. This can be done by activating User Domain Restriction plugin on Joomla.

<https://www.richeyweb.com/software/joomla/plugins/24-domainrestriction>

The downloaded plugin can be accessed by clicking the drop down menu Extensions and selecting Plugins.

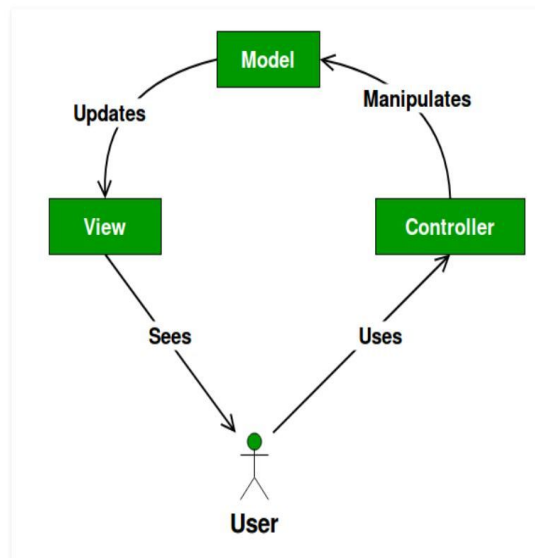


The screenshot shows the Joomla! administration interface for the 'User - Domain Restriction' plugin. At the top, there are buttons for 'Save', 'Save & Close', and 'Close'. Below this, there are tabs for 'Plugin', 'IP Security', 'Allowed', 'Disallowed', and 'Advanced'. The 'Allowed' tab is currently selected. Under the 'Allowed' tab, there are three sections: 'Allowed TLDs', 'Allowed Domains', and 'Allowed Emails'. Each section has a text input field and an 'Add' button. The 'Allowed Domains' section also has 'Edit' and 'Remove' buttons. Below these sections, there is a 'Bulk Import Type' section with three radio buttons: 'TLD', 'Domain' (which is selected), and 'Email'. At the bottom, there is a 'Bulk Import List' section with a text input field.

Screen 24: Activate User Domain Restriction Students to allow only users with Gettysburg email

Implementing a new Joomla component

Joomla makes extensive use of Model-View-Controller pattern. The MVC pattern specifies that “an application consists of a data model, presentation information, and control information.” The following diagram helps visualize the MVC paradigm.



Screen 25: UML diagram for MVC design pattern

Adding any new functionality in Joomla means developing a new component which has to follow the MVC pattern. Our goal was to try to develop a component that would allow users to rent books from each other. The tutorial on developing Joomla component using MVC pattern can be found using this link.

https://docs.joomla.org/J3.x:Developing_an_MVC_Component/Developing_a_Basic_Component

Adding the Contact/Complaint Form

The contact form functionality can be added by using the Joomla contact form plugin. For our purpose this was achieved by adding Joomla's single contact form on the user menu as shown below. To add/change information about where the inquiries from user are redirected, we have to edit the contact information as shown in the Screen 27 and 28 below.

Menu Item Type

Articles
BlastChat Chat
BlastChat Config
Configuration Manager
Contacts
Featured Contacts This view lists the featured contacts.
List All Contact Categories Shows a list of contact categories within a category.
List Contacts in a Category This view lists the contacts in a category.
Single Contact This links to the contact information for one contact.
Hello World!
News Feeds
Privacy
Search
Sellacious
Sellacious One Page Checkout

Screen 26: Joomla single contact form

Menu Title * Alias

Details **Contact Display Options** Mail Options Link Type Page Display Metadata **Mega Menu** Page Title Module Assignment

Menu Item Type * **Select**

Select Contact * **Edit** **Clear**

Link

Target Window

Template Style

Screen 27: Edit contact information

Edit Contact

Name * Alias

Edit Contact Miscellaneous Information Display **Form** Publishing

Linked User	<input type="text" value="Super User"/> Select	Telephone	<input type="text"/>
Image	<input type="text" value="images/ELO-logo.png"/> Select ×	Mobile	<input type="text"/>
Position	<input type="text" value="ELO Customer Service"/>	Fax	<input type="text"/>
Email	<input type="text" value="kharelji8@gmail.com"/>	Website	<input type="text"/>
Address	<input type="text" value="300 N Washington St
Gettysburg College"/>	First Sort Field	<input type="text"/>
City or Suburb	<input type="text" value="Gettysburg"/>	Second Sort Field	<input type="text"/>
State or County	<input type="text" value="PA"/>	Third Sort Field	<input type="text"/>
Postal/ZIP Code	<input type="text" value="17325"/>		
Country	<input type="text" value="United States"/>		

Screen 28: Change/modify contact information

Adding the search bar functionality

The search bar functionality can be added to an application by using the Sellacious module called Sellacious finder. The Sellacious module can be found by clicking the drop down menu Extensions on the

administrator page and clicking on modules. After clicking on modules, one should select the Sellacious finder among the list of modules.

Screen 26: Sample configuration of Sellacious finder

Similarly, to activate the search bar on a specific page, the menu assignment option can be used as shown below.

Screen 27: Assigning search bar functionality on specific page/s

Also, the product filter is available on activation of sellacious products module.

Allowing a user to sell

Sellacious have a multi-vendor selling platform where users can sell their products through the website. But, sellacious does not provide that functionality with easy front-end access for users. In other words, for our application a user has to login through the Sellacious backend to be able to add products on the site. The functionality “Sell on ELO” was activated using the same idea of having the users login to the backend of Sellacious. The sell functionality was added by activating the Sellacious backend login whenever a user clicks on “Sell on ELO.” For example, on can add a user menu item, assign it to URL

type and attach the link to the sellacious backend to allow users to add products through sellacious login.

Menu Title *	<input type="text" value="Sell on ELO"/>	Alias	<input type="text" value="sell-on-elo"/>
<div>Details Link Type Mega Menu Page Title Module Assignment</div>			
Menu Item Type *	<div><input type="text" value="URL"/> Select</div>		
Link *	<input type="text" value="http://elogroup.sites.gettysburg.edu/sellacious/"/>		
Target Window	<input type="text" value="Parent"/>		
Template Style	<input type="text" value="- Use Default -"/>		
Menu Item			
<div>Menu *</div> <div><input type="text" value="User Menu"/></div>			
Parent Item			
<div>Menu Item Root</div>			
Ordering			
<div>Sell on ELO</div>			
Status			
<div>Published</div>			
Access			
<div>Registered</div>			
Language			
<div>All</div>			
Note			
<div></div>			

Screen 28: Allowing users to sell products through Sellacious login

It should be however noted that the administrator should change permissions and configurations on sellacious backend so that registered users do not have the full administrator access on Sellacious.

Allowing a user to view wishlist

A user's wishlist can be added onto user menu so that users can check the items on their wishlist. To do this we should add the wishlist component of Sellacious to the user menu as shown below in Screen .

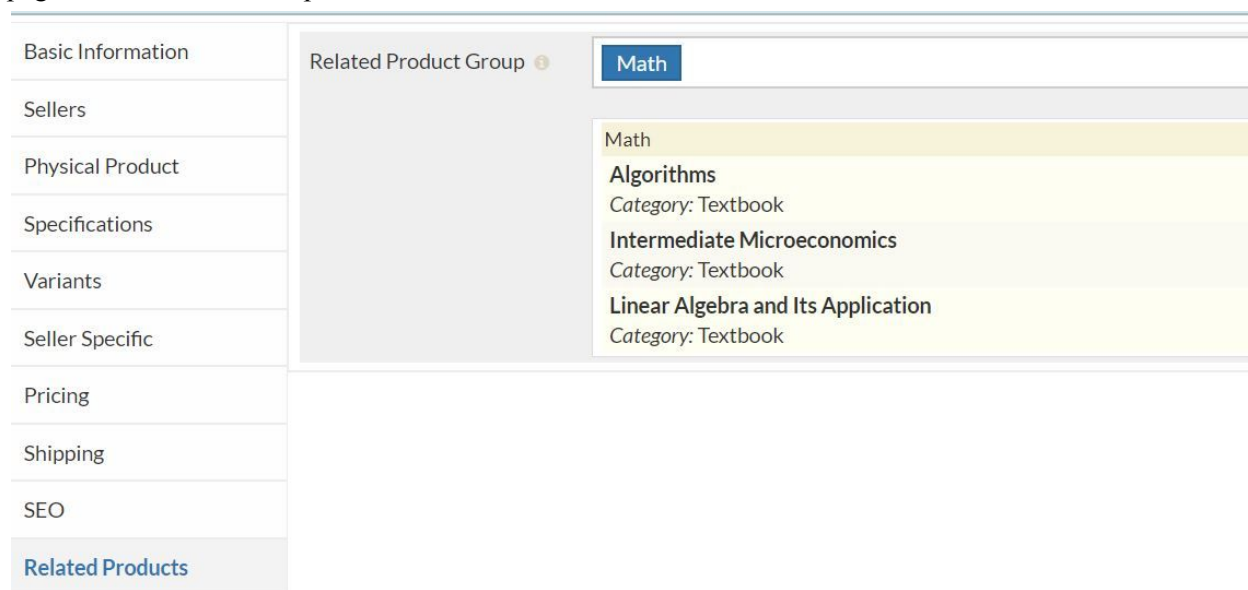
Menu Item Type
Hello World!
News Feeds
Privacy
Search
Solicious
[For SEF Only] Solicious Shop Central Create a link to this menu item type to use automatic SEF title without needing any other menu items.
All Downloads
Edit Profile A logged in user will be able to edit his profile here.
Manage Addresses A user can manage his addresses here. These addresses can be selected directly during checkout for convenience.
Orders
Product Categories List of Product Categories
Product Comparison Product Comparison view for the items added to compare
Products List of All Products
Products in a Category List of All Products in the selected category
Register A guest user can register for a new account here.
Reviews View Reviews
Search The default search layout.
Seller Registration Form A form for a new seller registration.
Seller's Store (Link only) A single seller's profile with all their listed products. This menu item should not be displayed in a menu where it will cause a no seller selected warning.
Seller's Store (Select Seller) A single seller's profile with all their listed products.
Shopping Cart Shopping Cart view with One Page Checkout
Single Product Single Product detail view
Stores List of All Stores
View Profile A logged in user will be able to view his profile here.
Wishlist Customer's Wishlist Items

Screen 29: Adding wishlist functionality

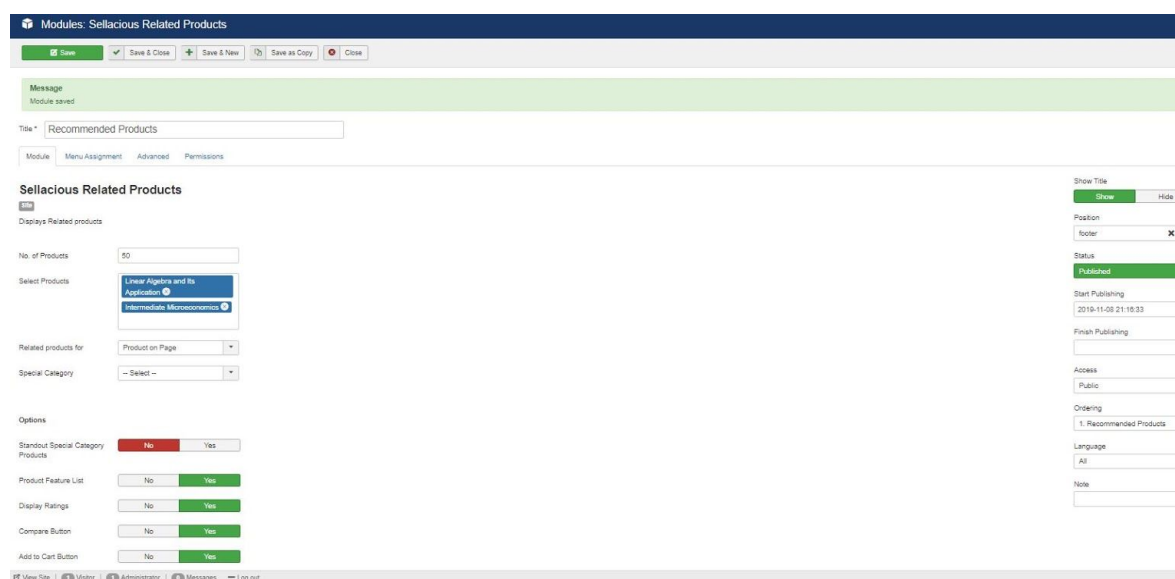
View Recommended Items:

The ‘Sellacious Related Products’ module in Sellacious can be used to recommend similar products to users. While the administrator might have to create the category by which items are grouped into similar

kind to be recommended for example all books of Economics can be grouped as ‘Economics’ category. For example, the category ‘Math’ has been created on screen 30 to group books related to Math. We should note that this feature although works for prototype purposes, it might be tedious for administrator to create related products group for every product. The recommendation items can be viewed on products page when administrator publishes the ‘Sellacious Related Products’ module as shown in Screen 31.



Screen 30: Configure Category for Related Products



Screen 31: Publishing ‘Sellacious Related Products’ Module

Compatibility Requirement

Before you decide to install a Bootstrap template or even create a template, please make sure to check its version compatibility with the most updated version of Joomla on Installatron. Joomla is automatically updated to the newest version whenever it is out on our platform. If the bootstrap template or another template is not made for an exact version of Joomla, there is a probability that some functionality may not work.

This is an example of an error that we ran into with compatibility. In the new template that we just installed, a closing button component consists of an x-shaped icon and its label. However, in Joomla’s default template, a closing button will only consist of an x-shaped icon. Due to that, the related .js files in

Joomla won't be able to register that there is also a label element associated with the closing icon. Thus, the label element is never called by the onclick function associated with the code to close the element, leading to the button not functioning because there wasn't any event that triggered it.

Installation Failure

There has been more than one time we have tried to install a new component, or edit some code snippet in the code directory that leads to errors on both the website and the administrator site. When the administrator site is down, we can't access the backend management. In the event that this happens, we suggest going into Installatron File Manager and delete all files/folders that are dependent on the new component. If you are editing or writing new code, go back to where you add the code snippet and delete it.

Future Implementation

Alternative solutions for product management

Ideally, we would like a registered student to be able to add their own products from the front-end of the store, without having to log in to Sellecious' back-end system (refer to Screen 3.3.1 in the Requirement Specification document for the front-end interface). However, due to time and budget constraint, we are now giving registered students access to Sellacious administrator site to add their own products, and placing certain restrictions so that the students can only create, delete, and modify the information about their own products in this prototype version.

We do have some suggestions for future implementation of this functionality.

1. EasyShop Add-on

This add-on can be purchased for \$50. It is both a multi-vendor ecommerce platform (allows multiple buyers and sellers), and it also allows vendors to be able to add, edit, and delete the products from the front-end.

Note: the \$50 package comes with a support license for six months. This means you can request support from the EasyShop developer team when you run into a technical problem in the course of 6 months only. There is a twelve months support license available for \$74.

<https://www.joomtech.net/products/easyshop-product-addons/multi-vendor>

2. VirtueMart Extension

An open-source e-commerce software designed for Joomla. This add-on also allows users to be able to edit a product from the front end, with a \$90 one time purchase.

3. Implementing a new Joomla component

Please refer to section 'Implementing a Joomla new component' in "For Developers"

Extend functionality

There are three functionalities that we have not been able to implement and/or have not explored all the possible options:

Push notifications for adding a new product

Please refer to F-18 in the **Requirement Specification Document** for a description of the push notification functionality. Basically, for this functionality, we want an ELO user to receive an email, some form of notification on their devices whenever the following activities are performed:

- Finish adding a new product
- Deleted their own product
- When their book is sold
- When their purchasing order is accepted

Renting books

Other than buying and selling, it is ideal for students to be able to rent their books to other students. Since Sellacious does not support renting, renting functionality will have to be either installing another extension or implemented from scratch by developing a new component in Joomla using its MVC pattern. Please refer ‘Implementing a new Joomla Component’ on how to develop a new component in Joomla from scratch.

More payment options

As of now, the prototype only allows product checkout via PayPal. In the future, it might be a good idea to allow a customer to use their credit card to check out, and move away from the ‘Out-Of-Scope’ method (referred to in section 7.2 Payment Integration in the Specification Requirement Document.)

Moving away from Gettysburg sites

At some point when the application goes into production, unless the development is going to continued by anyone associated with Gettysburg College, the application will have to be removed from Gettysburg sites and moved to another host platform.

Useful Links

cPanel	http://elogroup.sites.gettysburg.edu:2082/cpsess8690543648/frontend/paper_lantern/index.html?login=1&post_login=14902326678300
Joomla Tutorial	https://www.siteground.com/tutorials/joomla/
Sellacious Tutorial	https://www.sellacious.com/documentation
Joomla Extension Directory	https://extensions.joomla.org/
Responsive Joomla Templates	https://www.joomlart.com/joomla/templates
The Joomla Forum (helpful debugging discussions)	https://forum.joomla.org/