



**UNIVERSITY OF THE PHILIPPINES
OPEN UNIVERSITY**

Master of Information Systems

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**THE BOOKSALE, THE MAIN CLASSIFIED ADS
WEBSITE FOR BOOKS**

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This Special Project titled

The Booksale, The Main Classified Ads Website for Books

is hereby accepted by the Faculty of Information and Communication Studies in partial fulfillment of the requirements for the Master of Information Systems.

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ABSTRACT

Online bookselling had been vibrant for years. However, for a private individual or small business, there were some challenges. Among them were restrictions put on sellers of used books, while major websites only sold new books. Although classified ads websites were an alternative, book ads often got buried under those websites' numerous categories.

The proposed solution to tackle these challenges was the website called The Booksale, which aimed to become the main classified ads website for books. Among its objectives were to provide a new platform for online bookselling, allow sellers to post as many ads as they want for free, and be a dedicated ads site for books.

During research, the Information System Theory utilized was Michael Porter's Differentiation Focus under Competitive Advantage. Based on The Booksale's focus on books, it allowed an increased competitive advantage for the booksellers. For the development of the website, the software development life cycle approach used was the Rapid Application Development (RAD) method.

Several clients were approached who provided responses for a Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis. To assess the success of the project, the clients also gave feedback for the User Acceptance Testing (UAT) and System Usability Scale (SUS) survey. Based on these results, it was concluded that the project achieved its objectives.

When fully implemented, this project could open opportunities for online booksellers, especially private individuals and small businesses. With nothing else like it today, it contributed to the current Information Systems knowledge.

ACKNOWLEDGMENTS

The Booksale came to be after months of sweat and tears, then some more months of sweat and tears. The struggle I went through to complete this project would not be fruitful if not for the individuals and groups around me.

First, my most heartfelt thanks go out to my muse, my wife, Cherry C. Gagni. Thank you so much for your motivation, praise, and positive criticisms. You kept me resilient by being the strong rock I can lean on. My deepest thanks for your patience as I am not there for you while I was busy with the program for months. Thank you so much for acting as both Mom and Dad to our daughter, allowing me to complete this project. By the way, thank you for your background as a former IT team lead. It really brought out the best version of my programming self.

To our little one, Chloe Jada C. Gagni, since you came into our lives, you and your Mom were my constant source of inspiration.

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Dedicated to:
Cherry and Chloe Jada

Chapter I

THE PROBLEM DOMAIN

Statement of the Problem

The Booksale aimed to be the main classified ads website for books by addressing three challenges faced by online booksellers. The first problem it tackled was how most websites focus on new items. Online bookselling platforms like Lulu.com, Apple's iBookstore, and the Philippine's NationalBookStore.com offered lots of titles but all of them only sold new books. Another challenge this project wanted to tackle was the limitation websites like Amazon.com and AbeBooks.com may put on private owners of used books. Aside from the fee that needed to be paid as a seller on these sites, there was also the possibility that not everyone can be a seller and not every book can be sold because of their seller and product requirements. Finally, there was the challenge of ad posts for books getting lost among the vast array of categories on classified ads sites such as OLX Philippines. As such, these posts may get low or no views at all.

Background and Objectives of the Project

Websites like AbeBooks and classified ads websites like OLX Philippines currently allowed the sale of new and used books. Not only did these sites provide an online marketplace for big groups to sell their books but also for small enterprises and private owners to market their own

collections. But improvements can still be made to enhance the online visibility of book-related ads with The Booksale.

As its first objective, the project provided an additional avenue for the sale of e-books, and new and used paperback books for small enterprises and private owners. With functionality like free buy-and-sell websites, its second objective was to allow verified book owners, without the need to pay any fee, to sell as many of their books as they want while putting in as much information about them as they can. Finally, its third objective was to provide a classified ads website that was specifically dedicated to books.

Significance and Scope of the Project

Books were bought and sold countless times online. According to statistics released by StatisticBrain.com (2017), books were among the Top Five Best Selling Internet Products. While online sales of new books remained active, so did the online resale of used books through websites like AbeBooks.com and classified ads websites like OLX Philippines. In a research done by the University of California at Berkeley students Huang, et al. (2004), they found that 8.4% of total consumer spending on books was used book sales.

Through The Booksale, these online sales of books should be elevated further. With its functionality as a classified ads website, participation from small enterprises and individuals should also rise.

For this proposed project, the initial focus was the creation of a classified ads website for the online sales of different types of books, without charging the sellers a fee. The Booksale's initial targets as its sellers were small enterprises that sell books and other private book owners. The project also explored possibilities that could expand The Booksale's initial scope.

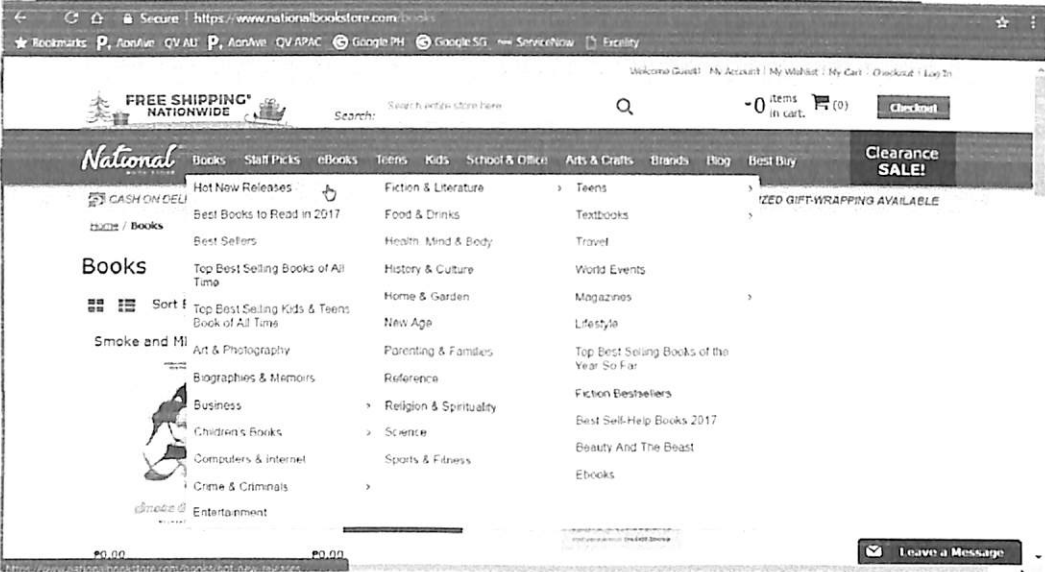
Documentation of Existence and Seriousness of the Problem

As this project intended to be the main classified ads website for books, it attempted to tackle challenges encountered with existing websites that deal in the sale of paperback and e-books.

Only New Books Were Sold

As major publishers like Penguin Random House and Harper Collins only posted books which were under them, websites such as Lulu.com and NationalBookstore.com offered several titles from different publishers. But the limitation was that they only offered new books and did not cater to the sale of used books.

Plate #1



Source: <https://www.nationalbookstore.com/books>

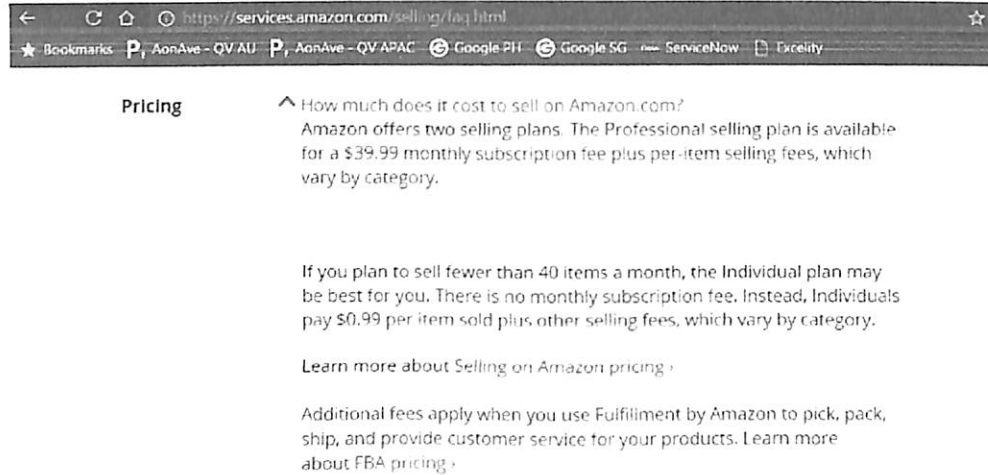
When browsing through the product pages of these three websites, with National Bookstore’s page seen at Plate #1, there were no options for customers to look for a used book. An even bigger drawback with these sites was that they only distributed books either from the authors or their publishers. As detailed in the blog entry by Mom’s A Stewardess called “Should You Sell Your Book at National Bookstore” (2008), a publisher needed to submit the author’s book to National Bookstore for consideration before having it approved then displayed on National Bookstore shops, and possibly afterward, on their online store.

Restrictions by Online Sellers of Used Books

While there were websites that only dealt in new books, there were other websites that allowed the sale of used books. However, there were two deal breakers for most sellers. First were the fees that the seller had to pay the online seller, even if they made use of the

buyback option. This could either be monthly or per book sold, plus other charges, as seen on Seller FAQs on Amazon.com on Plate #2.

Plate #2



Source: <https://services.amazon.com/selling/faq.html>

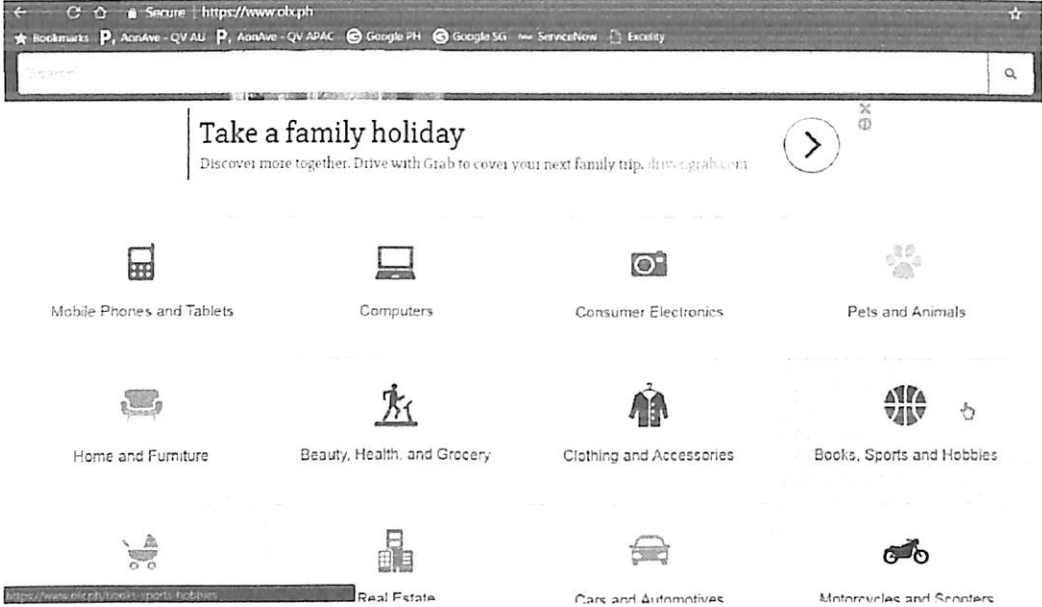
Second was the limitations brought about by the website's requirements on the seller or their books. As seen on Amazon.com's requirements, certain items needed to pass prior approval, and sellers needed to provide several information to Amazon.com such as business name, credit card number, and tax identity information. While for AbeBooks.com, almost the same information was required for sellers of multiple books.

Buried Under Multiple Ad Categories

For those unable to sell their books on websites like Amazon.com or AbeBooks.com, they made use of classified ads websites such as OLX Philippines or Buy and Sell Philippines. However, these sellers had to contend with having their ads buried under these sites' multiple categories. As seen on Plate #3 showing OLX Philippines' main page,

Books could be found in a category that was merged with Sports and Hobbies.

Plate #3



Source: <https://www.olx.ph/>

SWOT Analysis for All the Clients

A SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis was conducted for all the potential clients.

Table #1

STRENGTHS	WEAKNESSES
Current book ads stood out due to low selling prices and/or discounts	Book ads placed in OLX rarely reached the target audience
Books were in good condition	Not enough online presence on book-related social media groups
Books ads had an online presence through the websites OLX and	Book ads on OLX were not easily

Carousell, and other forms of social media	visible from their home feed Maximum effort was needed to market book items Some inquiries did not turn into sales since those who inquired were not sure of buying books in the first place
OPPORTUNITIES	THREATS
The possibility that there could be websites where unlimited posts were allowed, and categories catered to types of books like engineering and accounting Applications and websites that catered to small-time online sellers Websites that were more product-specific	The market for the sale of used books was not that big in the country Competition between fellow booksellers was a bit tough Some book ads did not get enough response from internet users, even if the products were new or had a low price

The Booksale – SWOT Analysis

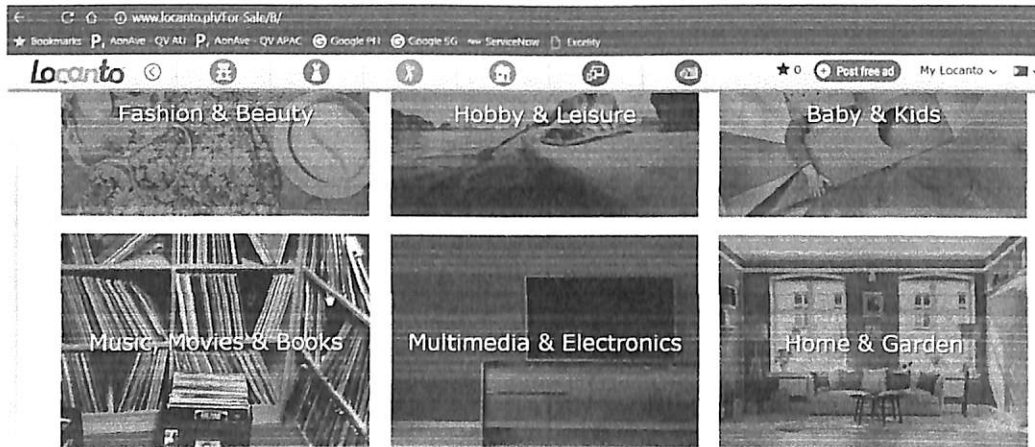
Chapter II

REVIEW OF EXISTING ALTERNATIVES

Even with the issue of having ads buried by multiple categories and being merged with other categories, users who were unable to sell their books on Amazon.com or AbeBooks.com continued to make use of classified ads websites.

Aside from OLX Philippines, there were other classified ads websites used by booksellers such as Buy and Sell Philippines and Locanto Philippines. Unfortunately, they too had varied categories and merged ads for books with other categories, as seen on Plate #4, which was Locanto Philippines' For Sale page, where Books shared the same category as Music and Movies.

Plate #4



Source: <http://www.locanto.ph/For-Sale/B/>

While using these classified ads websites to sell books seemed enough as an alternative, The Booksale provided a more permanent solution that online booksellers needed. That solution was a classified ads website specifically dedicated to the sale of books.

For years now, classified ads had been an effective marketing tool. As described in Wikipedia, Classified Advertising “is a form of advertising which is particularly common in newspapers, online and other periodicals which may be sold or distributed free of charge.”

As the evolution of the Internet continued, websites for classified ads also grew. According to an article by Sydney Jones on Online Classifieds (2009), “The number of online adults who have used online classified ads has more than doubled in the past four years. Almost half (49%) of internet users say they have ever used online classified sites, compared with 22% of online adults who had done so in 2005.” One appeal of online classified ads to Internet users was that they became “a one-stop-shop for everything from jobs to apartments to furniture to movers to puppies.”

Classified ads websites continuously maintained their high usage from online users. As such, its concept was fully adopted then tweaked so that it could find further success among book enthusiasts as either buyers or sellers. The result was this project, The Booksale.

The Booksale implemented the same functionality as the classified ads websites. Sellers only needed to provide the necessary description and photos of the items for sale. Then they just had to post them on the website.

One feature of The Booksale that made it stand apart from other classified ads websites was that since it’s specifically designed for books, only ad postings for book items were allowed on the site.

Another feature specifically designed for books that were different from existing classified ads websites was its category list. Instead of having a broad selection of categories that placed books together with sports and hobbies, it instead featured categories that were meant for books such as Books, E-Books, and Textbooks.

Lastly, a feature that was adopted and enhanced by this project from existing classified ads websites was the ability to allow sellers to post their ads for free. While the free features of classified ads websites were limited, The Booksale opened all features of the website for free. For example, OLX Philippines only allowed one free single post for each category. Sellers were then charged for additional posts on the same category. On The Booksale, sellers could create unlimited posts.

Chapter III

APPROACH TO BE TAKEN IN THIS SUBJECT

Theoretical Framework

For this project, the theory of Competitive Advantage by Michael Porter was applied.

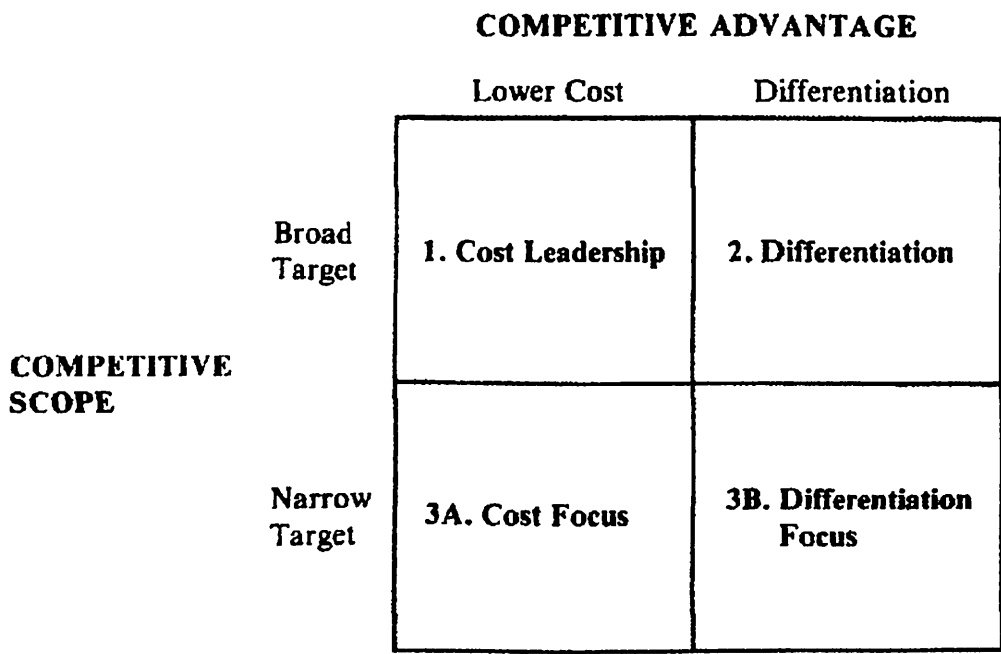
Emphasis was put on Focus, which was one of its three generic strategies, and Differentiation Focus, one of Focus' two variants. As for the System Design Principles to be used in this project, there were several.

The Information System Theory

Porter's Competitive Advantage was considered one of the most cited theories in Information Systems Research, according to a study by Ramirez-Correa (2016). As described in The Economist's article (2008), with the Competitive Advantage, "You win either by being cheaper or by being different (which means being perceived by the customer as better or more relevant). There are no other ways."

According to Michael Porter's book Competitive Advantage: Creating and Sustaining Superior Performance (1985), "the two basic types of competitive advantage, combined with the scope of activities for which a firm seeks to achieve them, lead to three generic strategies." These three generic strategies, as seen in Figure #1, were cost leadership, differentiation and focus, with focus having two variants, cost focus and differentiation focus.

Figure #1



Source: Porter, M. Competitive Advantage: Creating and Sustaining Superior Performance, Page 12.

The generic strategy of Focus, as described in Porter’s book (1985), “rests on the choice of a narrow competitive scope within the industry. The focuser selects a segment or group of segments in the industry and tailors its strategy to serving them to the exclusion of others.” While both focus variants “rest on differences between a focuser’s target segment and other segments in the industry”, in Differentiation Focus, “a firm seeks differentiation in its target segment” and “exploits the special needs of buyers in certain segments.”

The System Design Principle

Several Software Design Principles were adopted during the development of this website. First among them was DRY or Don’t

Repeat Yourself. According to Code Conquest's article on Software Design principles, DRY "is the principle that any code in your program should only be written once, and never duplicated." Another was the Separation of Concerns. Based on MSDN's article on the Key Principles of Software Architecture, this referred to how the developer divided the "application into distinct features with as little overlap in functionality as possible." Another principle used was YAGNI or You Ain't Gonna Need It. According to the same article from MSDN, this encouraged "Minimize upfront design" or to "only design what is necessary." Finally, the KISS (Keep It Simple, Stupid) principle was also adapted. Developed by Kelly Johnson, as quoted by Jonathan San Miguel in his blog post for iTexico (2014), it said: "most systems work best if they are kept simple rather than making them complex; therefore, simplicity should be a key goal in design and unnecessary complexity should be avoided."

Rationale for the Framework

In every business, competition was always a factor. This applied not only among different companies or individuals within an industry but between different industries as well.

For those who were part of the industry dealing in the sale of books, they had never been the focus on classified ads websites. This, in turn, lessened their competitive advantage against other industries within the same site. An example was how OLX Philippines created separate

categories for ads on Computers, Pets, and Real Estate but merged ads for Books with those of Sports and Hobbies.

By creating The Booksale, book ads were finally presented front and center. As the website focused on the sale of books and targeted book enthusiasts as its potential buyers, it intended to increase its booksellers' competitive advantage. With the addition of some features that used the Recommender System to help the website stand out, it aimed to boost its competitive advantage even further.

As for the use of the Software Design Principles during the development of The Booksale, this was to ensure that the website ran as efficiently as possible. This also helped to make sure that the code used was easy to maintain and scalable for future enhancements.

Technologies to be Considered or Used

The project was a web-based application since it used a concept like classified ads websites. In addition to being accessible on PCs, it was also designed in a way that its interface was user-friendly on current mobile devices like smartphones and tablets.

Since the project was web-based, HTML (Hyper Text Markup Language) was used. To improve the user interface's look, the CSS (Cascading Style Sheets) was also utilized. The use of JavaScript, particularly jQuery, on this project not only enriched the website's client-side capabilities but also increased the website's efficiency by taking the processing load off the server.

With the purpose of enhancing its functionality, the project also made use of Microsoft's ASP .Net server-side web application framework. The code written for ASP .Net in this project was C#. Apart from ASP .Net's reliability, it also offered a wide library of functions and controls that reduced the amount of time needed to develop a website that will be as robust as The Booksale.

Regarding the storage of its data, the relational database management system used by this project was Microsoft SQL Server. Being a part of Microsoft's suite of applications, it already had the advantage of having native compatibility with ASP .Net. Plus, it had tools that made it easy to use and develop for.

Finally, for The Booksale's hosting services, GearHost.com was engaged. Aside from being able to host web applications created in ASP .Net they also allowed the use of Microsoft SQL server for its data storage.

Chapter IV

PROJECT PLAN

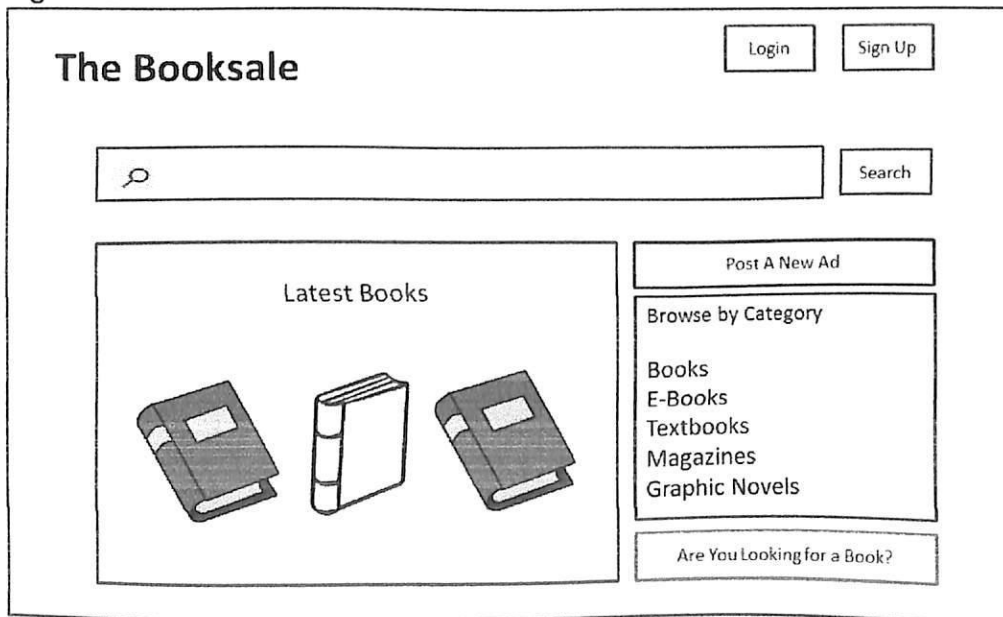
Concept

At its core, The Booksale followed the design of a classified ads website. Major changes were then added to make it more in line with the sale of books. Additional features were also included to improve the website further.

Planned Design

At the main page of the website (Figure #2), users were able to log in to their existing account, sign-up for a new account, post a book ad to either sell or buy, or view the existing book ads using different options. Options to view existing book ads included Searching, a Quick View of the latest ads, or by browsing the Categories.

Figure #2

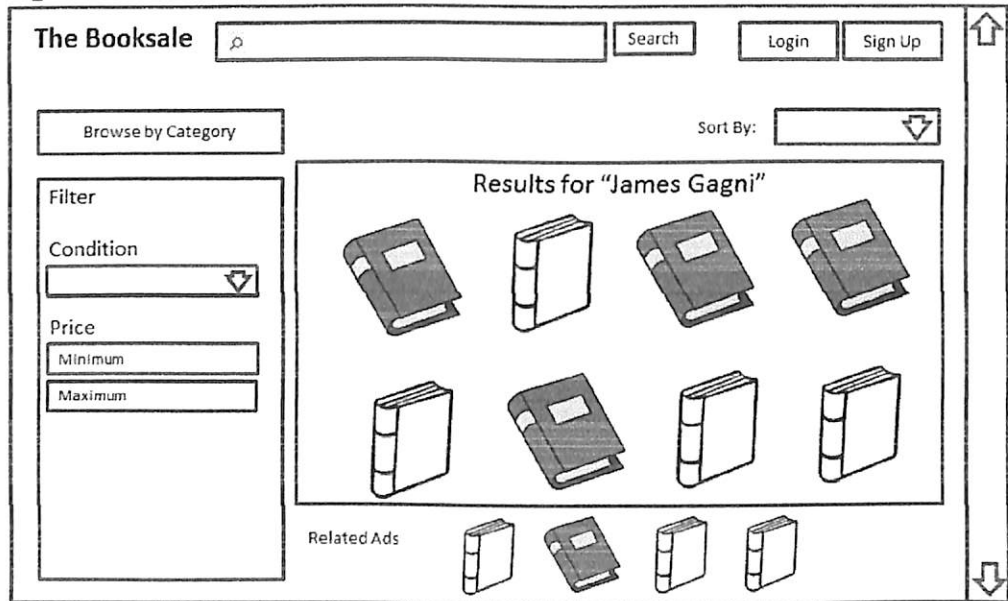


Sample Design – Main Page on a Personal Computer's browser

Visitors were able to log-in using an existing account which can be requested using the Sign Up button. Upon becoming a registered user, he could manage his account details, view the complete details of an existing book ad, and post book ads. To post a book ad, logged-in users needed to put in the required information and submit it for review.

To look for specific book ads, users could perform a simple Search where all the results were displayed on the Search Results page together with some related ads (Figure #3).

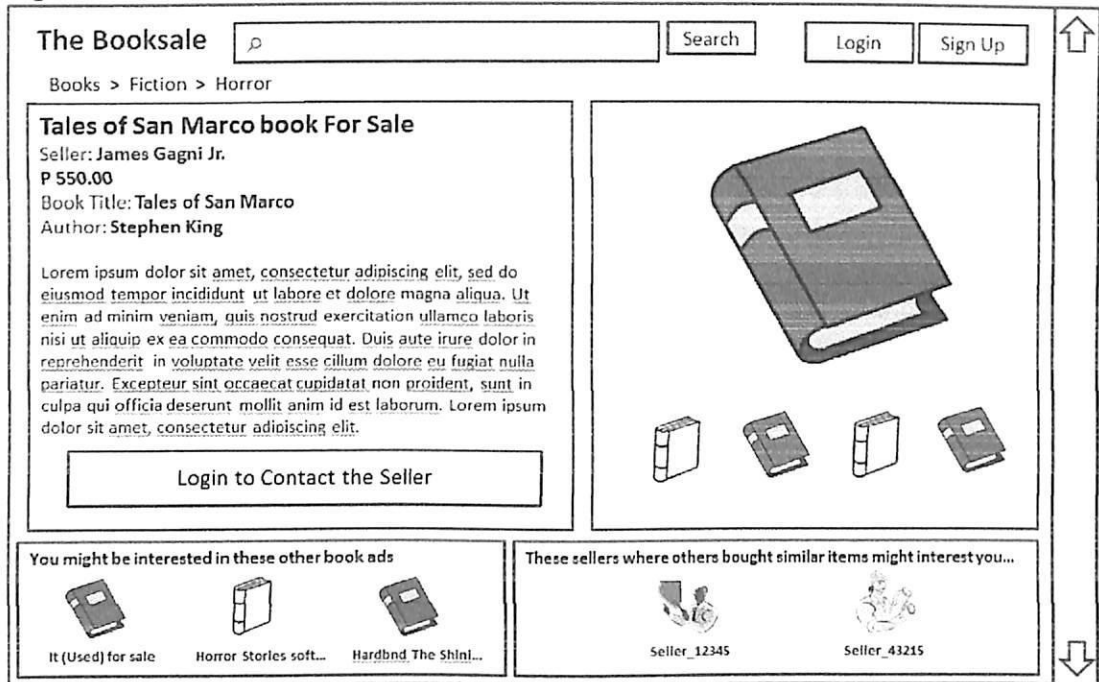
Figure #3



Sample Design – Search Results page

The actual page of the book ad displayed all the information the buyer needed in considering the book displayed in the ad (Figure #4). Visitors of the website (unregistered users) were able to view the ad's details and all photos uploaded by the seller. However, they were unable to see the seller's contact information. This was only viewable once they became registered users.

Figure #4



Sample Design – The book ad’s page, as viewed by an unregistered user.

To provide more recommendations for potential customers, two features that used a Recommender System, a type of Predictive Model as discussed by Mike Gualtieri during his May 2015 presentation entitled Fundamentals of Predictive Analytics, were also displayed on the book ad’s page. One of these windows displayed other items related to the current ad’s genre or its author, while another showed other sellers where previous customers bought items related to the current book ad.

To assist The Booksale’s Sellers, they were also given access to the Seller’s My Reports screen. This page provided them with different reports that accessed available data from across the website. Among them were the Offers Page which looked through the “Looking to Buy” book ads, the Ads Summary page which displayed information on their

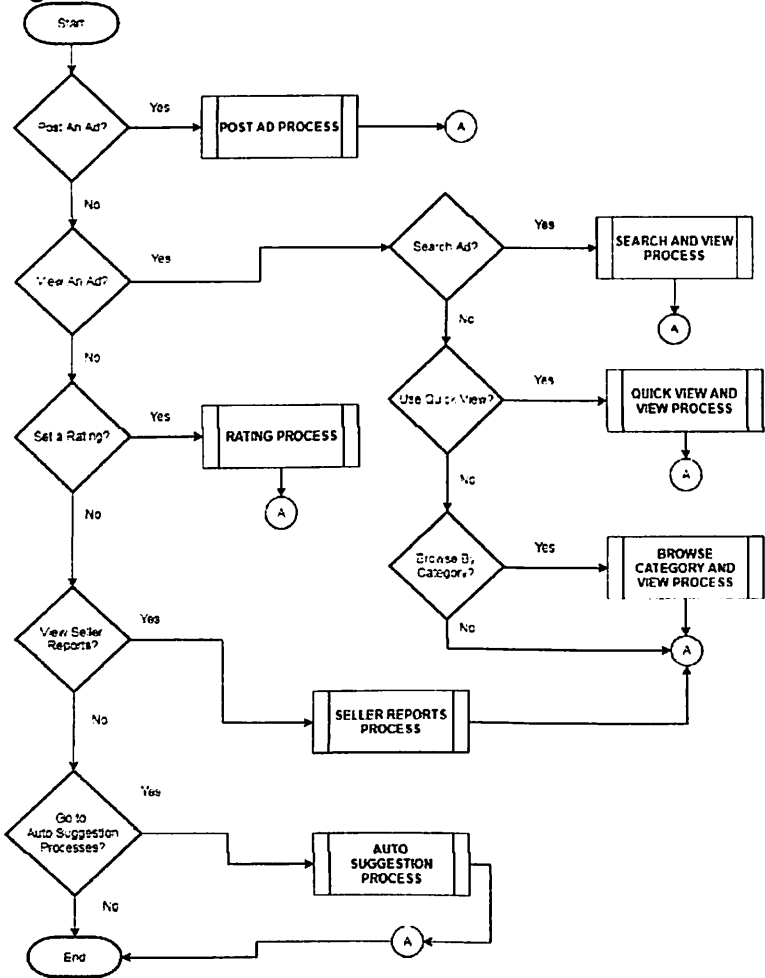
own ads, and the Dashboard Page which provided a one-page view of different statistics related to the seller.

While the website collected user data for the website's analytics features, The Booksale upheld the protection of its users' information. With other sites gathering then selling data about their users as mentioned in an article by Taylor Armerding for CSOnline.com, users of The Booksale were guaranteed that their information was never shared anywhere else. There was also data security within the application itself wherein only authorized users could access specific information, like a seller's contact details. These users could access only either their own data or data that was available to all registered users. In addition, as The Booksale was hosted on GearHost.com, it would be covered by its security and data protection measures.

Process and Data Flow

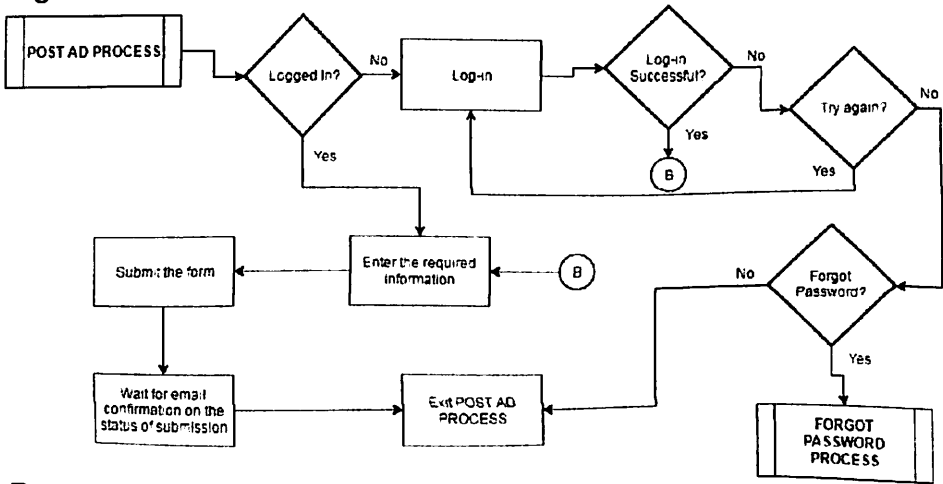
Process Flow Diagram of The Booksale's Key Features.

Figure #5



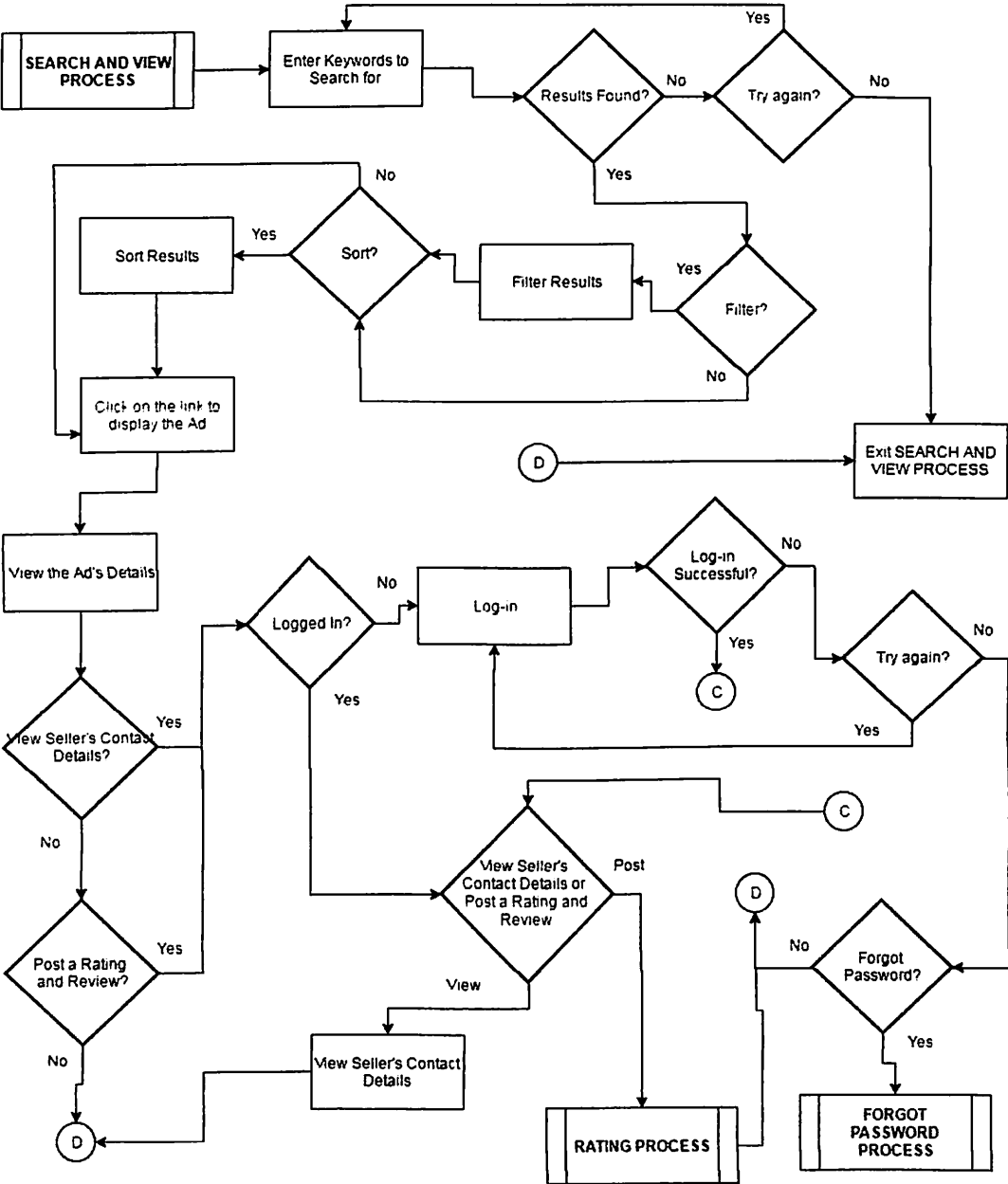
The Booksale's Main Page

Figure #6



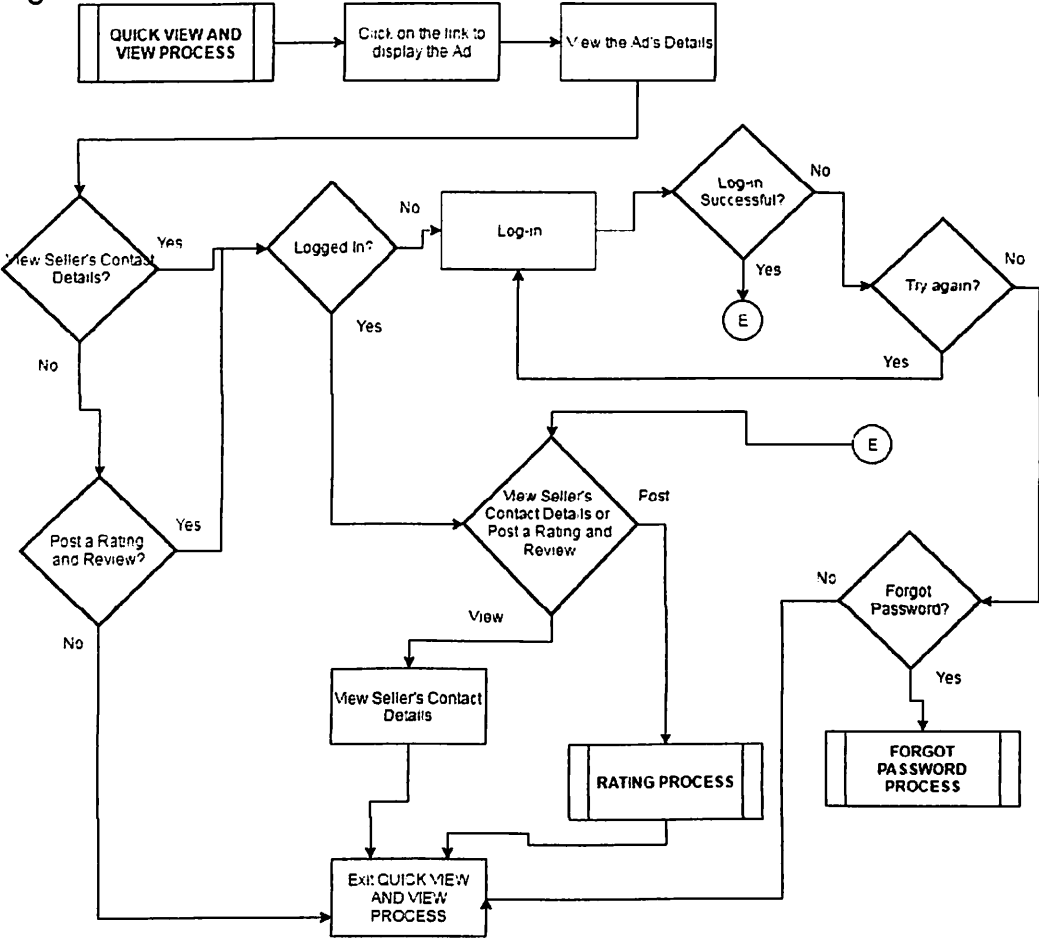
Posting a Book Ad

Figure #7



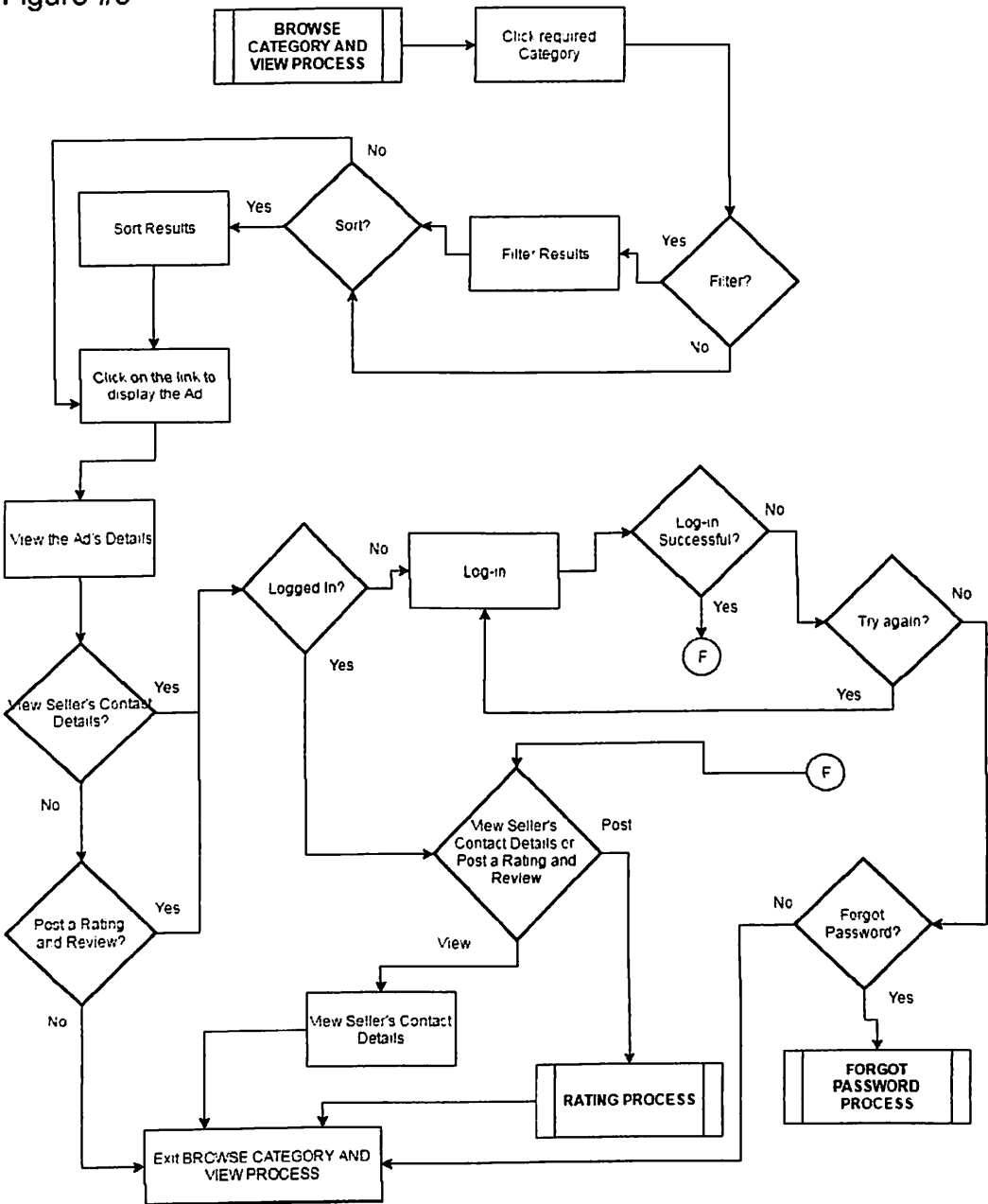
Search Option and Viewing the Book Ad's Details

Figure #8



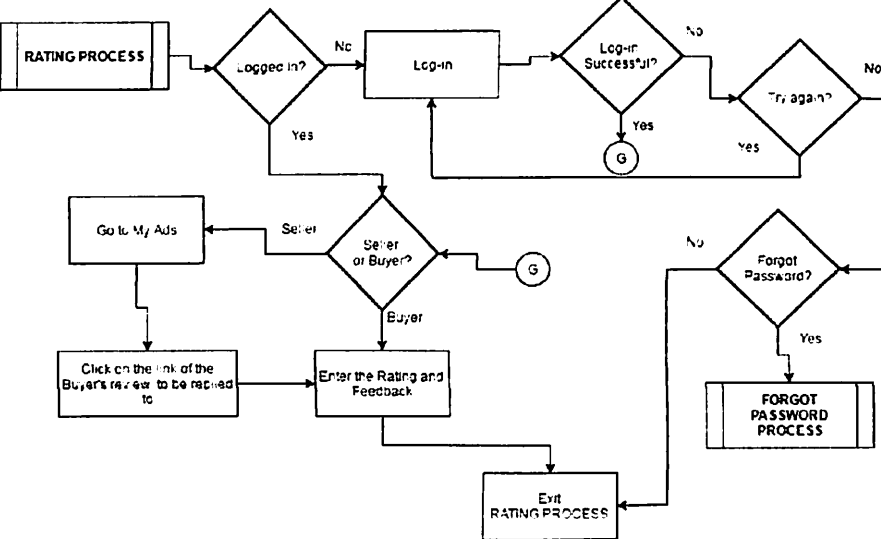
Quick View Option and Viewing the Book Ad's Details

Figure #9



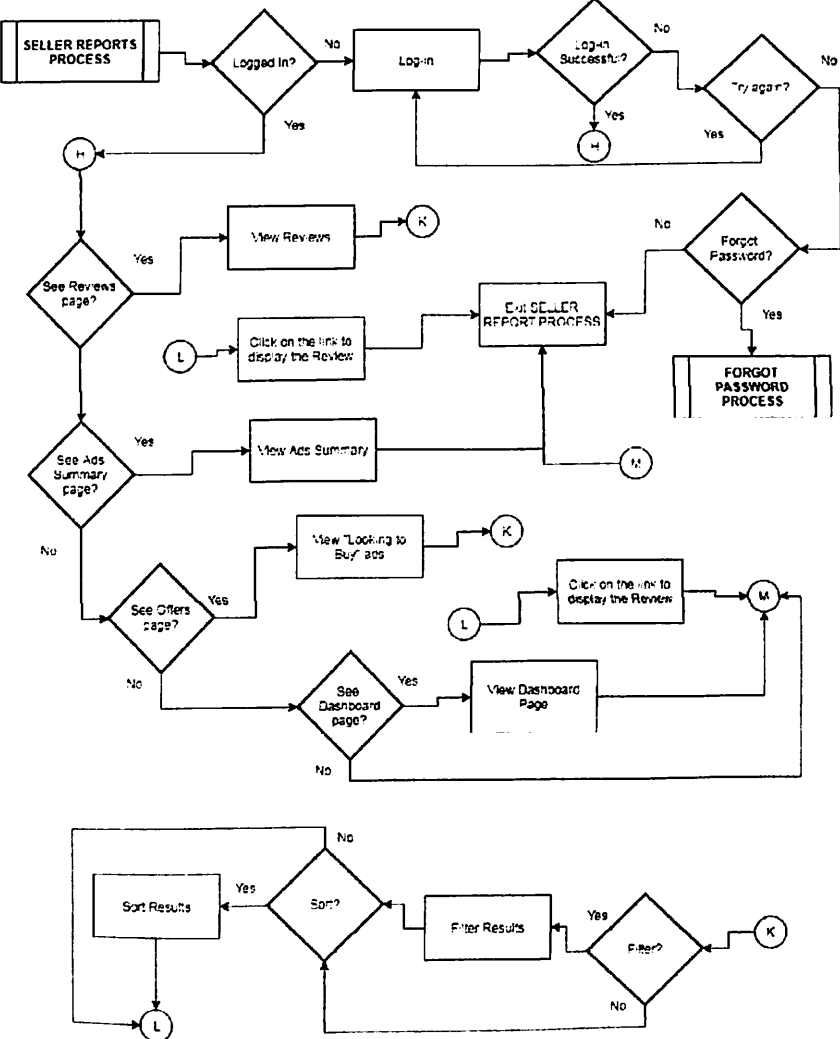
Browsing the Categories and Viewing the Book Ad's Details

Figure #10



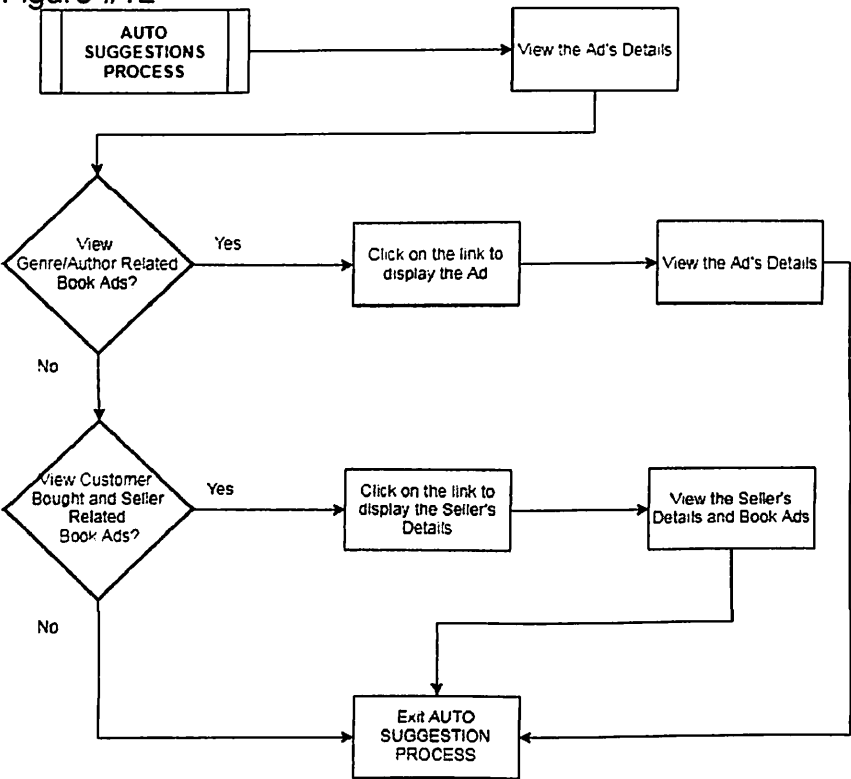
Rating and Reviewing a Seller or Buyer

Figure #11



Seller Reports

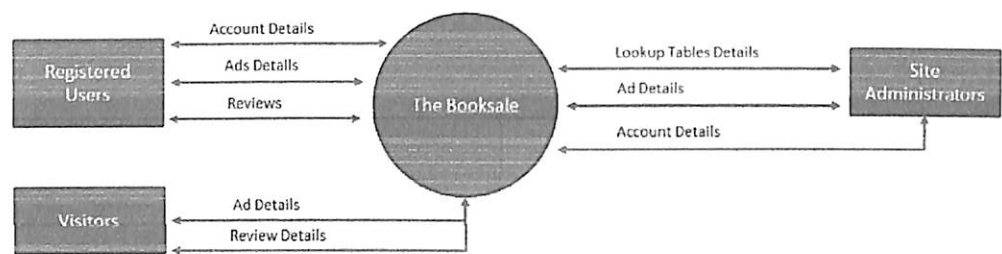
Figure #12



Automatic Book Ad Suggestions

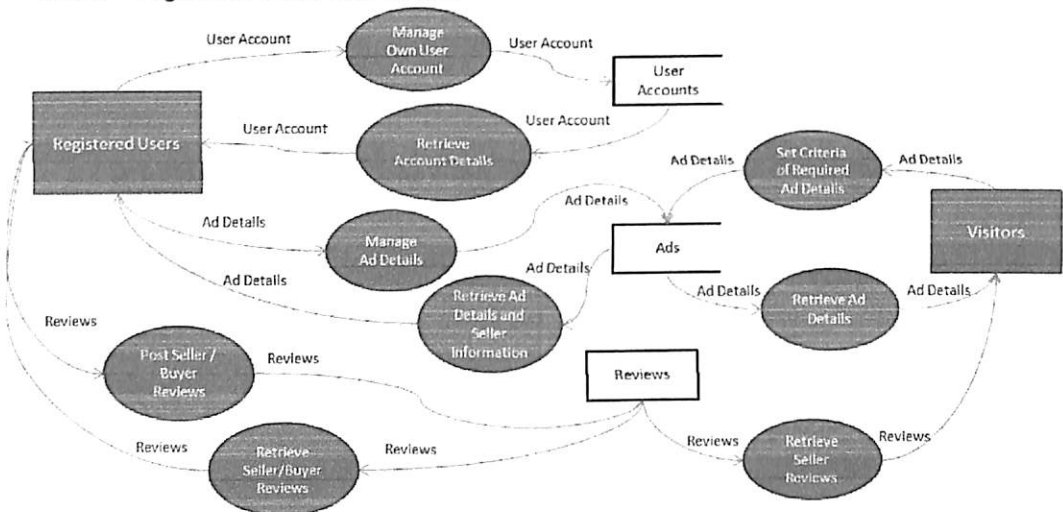
Data Flow Diagram

Figure #13
Context DFD



Context Data Flow Diagram – DFD Level 0

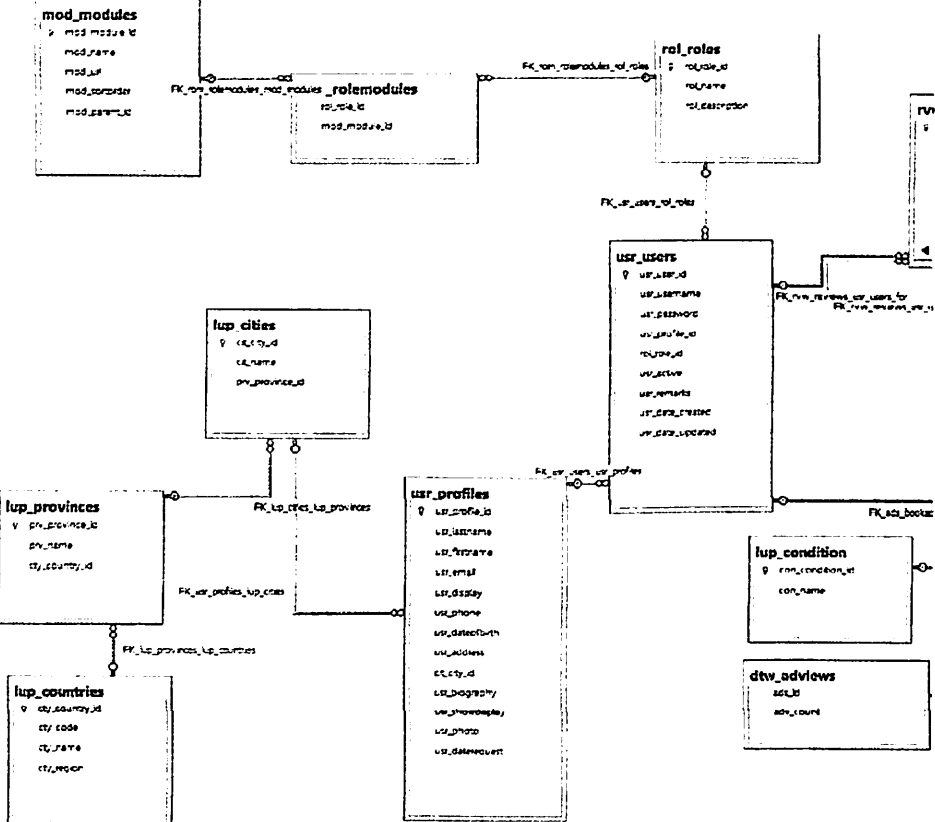
Figure #14
DFD 1 – Registered Users and Visitors



Data Flow Diagram – DFD Level 1

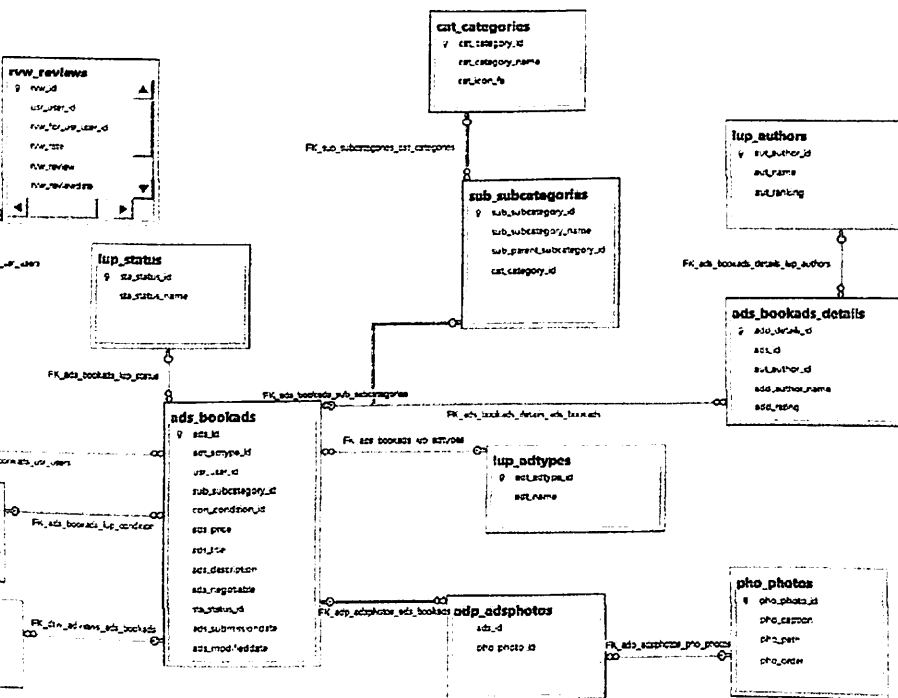
Entity Relationship Diagram

Figure #15



The Booksale – ERD (Leftmost)

Figure #16



The Booksale – ERD (Rightmost)

Key Features

These were the major features of The Booksale.

Posting of “For Sale” book ads. To provide a better online classified ads service to booksellers, The Booksale allowed them to post their ads for free.

Posting of “Looking to Buy” book ads. Users who were unable to find what they needed on The Booksale could also post “Looking to Buy” ads.

Ads search. By typing in keywords, this feature went through its database of ads and displayed the Search results, which could then be filtered further.

A quick view of the latest ads. As an easy way to access recently posted ads, a few of them were presented on the main page.

Browsing the ads using categories. Existing ads could also be viewed by browsing through the available book categories.

Some details of the book ads will be open to the public. Details of the sellers’ book ads were viewable to the public, except for the contact information.

Buyer and seller ratings. Both the buyer and seller were able to post a rating for each other, plus a review.

Sellers’ Offers Page. As a seller on The Booksale, they were able to access the Offers Page to look through the “Looking to Buy” book ads.

These were ads posted by buyers who were looking for items they wanted to buy.

Sellers' Ads Summary Page. The Ads Summary page allowed sellers to see information on their ads in The Booksale. The result set displayed depended on the filters set.

Sellers' Dashboard Page. This page provided sellers with a one-page view of different statistics related to their account and book ads. These included the number of views, the total number of ads, and others.

Genre and/or Author Related Book Ads. While at the Book Ad page to look at more details related to the ad, a portion of the page displayed other items related to the current ad's genre or its author.

Customer Bought and Seller Related Book Ads. As another means to provide additional recommendations to potential customers, the Book Ad's page also displayed other sellers where previous customers bought items related to the current book ad.

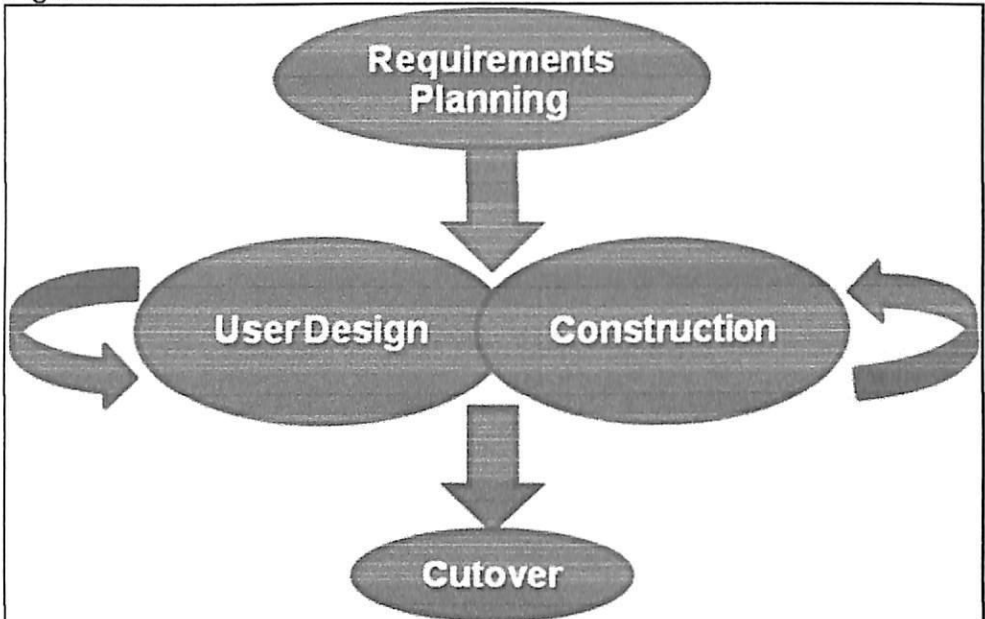
Methods

These were among the methods undertaken during the creation of this project.

Design studies. During the website's development, James Martin's Rapid Application Development (RAD) model (Figure #5) was used. In a blog post by Andrew Powell-Morse (2016), RAD was described as a "method of software development which heavily emphasizes rapid prototyping and iterative delivery." Before newer systems used a

different iteration of James Martin's RAD method, it had four phases which were the Requirements Planning, User Design, Construction, and Cutover.

Figure #17



Source: Wikipedia. Rapid Application Development.

Literature review. Articles related to classified ads, online transactions, and book sales were examined on. This included reading on articles related to the sale of books online. Afterward, readings were also done on frameworks, principles, and methods related to Information Systems.

Review of existing systems and assessment of alternatives. Since there were no other applications like The Booksale, the existing alternatives were reviewed instead, classified ads websites. These sites, as the alternatives to other online book merchants, were evaluated based on their value to the booksellers.

Prototypes and try-outs with users. Clients were supposed to test the prototype website at the end of each User Design phase and Rapid Construction phase. But due to time constraint, it only happened once. A link to the prototype and a user feedback form were also sent out to the clients. Afterward, the results of the feedback were analyzed and presented.

Assessment instruments and analysis of its results. To evaluate the user experience, clients were asked to answer questions based on John Brooke's System Usability Scale. These were given together with the User Acceptance Test forms, the outcomes of which were analyzed by comparing the Expected Results with the Actual Results.

Preparation of final project documentation. The additional chapters such as Results and Discussions, Conclusions, and Recommendations were added to the current documentation right after Testing phase of the project. The final documentation will then be submitted during the Cutover phase.

Plan for User Testing and Assessment

Upon release of the prototype, clients were asked to perform a User Acceptance Test to evaluate the website prior to the Cutover phase. The outcome of this test was analyzed by comparing the Expected Results with the Actual Results. For an unexpected result, a patch was made on the Test environment.

To further evaluate the website, clients were also asked to answer questions based on John Brooke's System Usability Scale. As described in an article from Usability.Gov, the scale "provides a 'quick and dirty', reliable tool for measuring the usability" of an application. To provide further proof that the website passed all tests, the UAT results retrieved from the clients, and the results of their SUS were used as confirmation of this fact.

Chapter V

RESULTS AND DISCUSSIONS

The User Acceptance Test

Before The Booksale could achieve its objectives for its prospective clients, it first had to pass the User Acceptance Test. In this test, steps were given to the users on how to perform a task within the application, including the expected result. Afterwards, the clients recorded the actual results encountered on an online survey created using LimeSurvey.com (<https://thebooksale.limequery.com/754444>).

The UAT was used to determine if The Booksale’s features were in working order. In addition, this User Acceptance Test also proved how, in following the steps stated in the test like Searching for Ads, Viewing Ads by Categories, Posting an Ad, among others, the projects’ objectives can be achieved.

Among the nine previously approached clients, two replied with their UAT results.

Table #2

UAT Step	Actual Results
Register New Account	As expected.
Login Successfully	As expected.
Invalid Login	As expected.
View and Update the Details of a Specific Account	As expected. Some of the items don't have a comment if it's

	optional or not.
View and Update the Profile Photo of a Specific Account	As expected.
View and Change the Password of a Specific Account	As expected.
View and Change the Preferences of a Specific Account	As expected.
Search for an Existing Ad	As expected.
Search for an Existing Ad with Filter	As expected.
Access an Existing Ad Using Quick View	As expected.
Access an Existing Ad Using Categories	As expected.
Access an Existing Ad Using Categories with Filters	As expected.
View the Details of an Existing Ad	As expected.
View Other Ads Related to the Current Ad's Genre or Author	As expected.
View Sellers Where Previous Customers Bought Items Related to the Current Ad	As expected.
Post a New Ad	As expected.
Update an Existing Ad	As expected.
Post a Rate and Review of the Seller	As expected.
Post a Rate and Review of the Buyer	As expected.
View the Reviews Report	As expected.
View the Ads Summary Report	As expected.

View the Offers Report	As expected.
View the Dashboard	As expected.

The Booksale – UAT Results for Kristine Marcelino

Table #3

UAT Step	Actual Results
Register New Account	Seen as expected.
Login Successfully	Login Successful as expected.
Invalid Login	Error message as expected and can't access other functions.
View and Update the Details of a Specific Account	Account was updated successfully.
View and Update the Profile Photo of a Specific Account	Updated as expected.
View and Change the Password of a Specific Account	Able to change the password.
View and Change the Preferences of a Specific Account	Preference updated successfully.
Search for an Existing Ad	Able to search and filters are working.
Search for an Existing Ad with Filter	The filters are working ok.
Access an Existing Ad Using Quick View	As expected.
Access an Existing Ad Using Categories	As expected.
Access an Existing Ad Using Categories with Filters	As expected.

View the Details of an Existing Ad	As expected. Just noticed that the negotiable remark for the prices is not shown.
View Other Ads Related to the Current Ad's Genre or Author	As expected.
View Sellers Where Previous Customers Bought Items Related to the Current Ad	As expected.
Post a New Ad	As expected.
Update an Existing Ad	Able to update successfully. However, after it was edited, the book was not included in the new listing. The status is still submitted not published.
Post a Rate and Review of the Seller	Able to rate the seller. However, is it ok that you can rate your own book as a seller? This must not be possible in my opinion.
Post a Rate and Review of the Buyer	Same findings as the previous one.
View the Reviews Report	Able to see the list of reviews.
View the Ads Summary Report	Seen as expected.
View the Offers Report	List as expected.
View the Dashboard	As expected.

The Booksale – UAT Results for Casilyn Manigbas

Table #4

UAT Step	Actual Results
Register New Account	It was as expected.
Login Successfully	It was as expected.
Invalid Login	It was as expected.
View and Update the Details of a Specific Account	It was as expected. Please double check the places under Province Zamboanga Sibugay. Thanks.
View and Update the Profile Photo of a Specific Account	It was as expected.
View and Change the Password of a Specific Account	It was as expected.
View and Change the Preferences of a Specific Account	It was as expected.
Search for an Existing Ad	It was as expected.
Search for an Existing Ad with Filter	It was as expected.
Access an Existing Ad Using Quick View	It was as expected.
Access an Existing Ad Using Categories	It was as expected.
Access an Existing Ad Using Categories with Filters	It was as expected.
View the Details of an Existing Ad	It was as expected.
View Other Ads Related to the Current Ad's Genre or Author	It was as expected.
View Sellers Where Previous Customers	It was as expected.

Bought Items Related to the Current Ad	
Post a New Ad	It was as expected. Successfully posted.
Update an Existing Ad	It was as expected.
Post a Rate and Review of the Seller	It was as expected.
Post a Rate and Review of the Buyer	It was as expected.
View the Reviews Report	It was as expected.
View the Ads Summary Report	It was as expected.
View the Offers Report	It was as expected.
View the Dashboard	It was as expected.

The Booksale – UAT Results for Daisy Rey Barrios

Table #5

UAT Step	Actual Results
Register New Account	Same as expected output.
Login Successfully	Same as expected output.
Invalid Login	Same as expected output. Error message appeared, and menu has changed.
View and Update the Details of a Specific Account	Same as expected output.
View and Update the Profile Photo of a Specific Account	Same as expected output. Photo uploaded.
View and Change the Password of a Specific Account	Same as expected output.

View and Change the Preferences of a Specific Account	Same as expected output.
Search for an Existing Ad	Same as expected output.
Search for an Existing Ad with Filter	Same as expected output.
Access an Existing Ad Using Quick View	Same as expected output.
Access an Existing Ad Using Categories	Same as expected output.
Access an Existing Ad Using Categories with Filters	Same as expected output.
View the Details of an Existing Ad	Same as expected output.
View Other Ads Related to the Current Ad's Genre or Author	Same as expected output.
View Sellers Where Previous Customers Bought Items Related to the Current Ad	Same as expected output.
Post a New Ad	Same as expected output.
Update an Existing Ad	Same as expected output.
Post a Rate and Review of the Seller	Same as expected output.
Post a Rate and Review of the Buyer	Same as expected output.
View the Reviews Report	Same as expected output.
View the Ads Summary Report	Same as expected output.
View the Offers Report	Same as expected output.
View the Dashboard	Same as expected output.

The Booksale – UAT Results for Mara Balagusok

Table #6	
UAT Step	Actual Results

Register New Account	Registration ok.
Login Successfully	Login is as expected.
Invalid Login	Is as expected.
View and Update the Details of a Specific Account	View and Update of account is ok.
View and Update the Profile Photo of a Specific Account	Photo update is ok.
View and Change the Password of a Specific Account	View and Change of Password is ok.
View and Change the Preferences of a Specific Account	View and Change of Display Name is ok.
Search for an Existing Ad	Searching is ok.
Search for an Existing Ad with Filter	Filter after searching is ok.
Access an Existing Ad Using Quick View	Quick View is ok.
Access an Existing Ad Using Categories	Categories are ok.
Access an Existing Ad Using Categories with Filters	Filters are working ok.
View the Details of an Existing Ad	Details of the ad could be seen properly. Can you confirm whether the review button can also be seen by a user that is not logged in? Coz it shouldn't be possible.
View Other Ads Related to the Current Ad's Genre or Author	This looks ok. As expected.

View Sellers Where Previous Customers Bought Items Related to the Current Ad	Sellers View is ok. I can also properly see the seller's page.
Post a New Ad	Ad was posted successfully.
Update an Existing Ad	Ad was updated ok.
Post a Rate and Review of the Seller	Rate and Review is ok.
Post a Rate and Review of the Buyer	Rate and Review is ok for buyer as well.
View the Reviews Report	The report is ok. I can see the ads as well.
View the Ads Summary Report	The report is ok. I can see the ads as well.
View the Offers Report	The Offers report is ok. As expected.
View the Dashboard	The Dashboard looks ok. Perhaps additional statistics can be added in the future.

The Booksale – UAT Results for Ariel Raquino

Table #7	
UAT Step	Actual Results
Register New Account	Able to register
Login Successfully	Successful login
Invalid Login	Unable to login, as expected.
View and Update the Details of a Specific Account	View and update successful

View and Update the Profile Photo of a Specific count	View and update of profile photo successful
View and Change the Password of a Specific Account	Change of password successful
View and Change the Preferences of a Specific Account	Change of preferences successful
Search for an Existing Ad	List of Ads via Search successful
Search for an Existing Ad with Filter	Filter successful
Access an Existing Ad Using Quick View	Quick View successful
Access an Existing Ad Using Categories	List of Ads via Categories successful
Access an Existing Ad Using Categories with Filters	Filter successful
View the Details of an Existing Ad	View of Ad Details Successful
View Other Ads Related to the Current Ad's Genre or Author	View of Other Ads related to Genre and Author Successful
View Sellers Where Previous Customers Bought Items Related to the Current Ad	View of Other Ads related to Sellers Successful
Post a New Ad	Posting successful
Update an Existing Ad	Update of ad successful
Post a Rate and Review of the Seller	Rate and Review of seller successful
Post a Rate and Review of the Buyer	Rate and Review of buyer successful

View the Reviews Report	Reviews Report successful
View the Ads Summary Report	Ads Summary Report successful
View the Offers Report	Offers Report successful
View the Dashboard	Dashboard successful

The Booksale – UAT Results for Cherry Gagni

Table #8

UAT Step	Actual Results
Register New Account	As expected
Login Successfully	As expected
Invalid Login	As expected, cannot log in.
View and Update the Details of a Specific Account	As expected
View and Update the Profile Photo of a Specific count	As expected
View and Change the Password of a Specific Account	As expected
View and Change the Preferences of a Specific Account	As expected
Search for an Existing Ad	As expected
Search for an Existing Ad with Filter	As expected
Access an Existing Ad Using Quick View	As expected
Access an Existing Ad Using Categories	As expected
Access an Existing Ad Using Categories with Filters	As expected

View the Details of an Existing Ad	As expected
View Other Ads Related to the Current Ad's	As expected
Genre or Author	
View Sellers Where Previous Customers	As expected
Bought Items Related to the Current Ad	
Post a New Ad	As expected, post successful
Update an Existing Ad	As expected
Post a Rate and Review of the Seller	As expected
Post a Rate and Review of the Buyer	As expected
View the Reviews Report	As expected
View the Ads Summary Report	As expected
View the Offers Report	As expected
View the Dashboard	As expected

The Booksale – UAT Results for Amie Barrios

Table #9

UAT Step	Actual Results
Register New Account	Registration works fine.
Login Successfully	Login works fine.
Invalid Login	Login works fine. Invalid login is not allowed.
View and Update the Details of a Specific Account	Account update looks fine.
View and Update the Profile Photo of a Specific count	Account update looks fine.

View and Change the Password of a Specific Account	Account update looks fine.
View and Change the Preferences of a Specific Account	Account update looks fine.
Search for an Existing Ad	Searching works fine.
Search for an Existing Ad with Filter	Searching works fine.
Access an Existing Ad Using Quick View	Quickview works fine.
Access an Existing Ad Using Categories	Categories works fine.
Access an Existing Ad Using Categories with Filters	Categories works fine.
View the Details of an Existing Ad	Ad Details works fine.
View Other Ads Related to the Current Ad's Genre or Author	Related Ads work fine.
View Sellers Where Previous Customers Bought Items Related to the Current Ad	Related Ads work fine.
Post a New Ad	Posting successful.
Update an Existing Ad	Update successful.
Post a Rate and Review of the Seller	Review successful.
Post a Rate and Review of the Buyer	Review successful.
View the Reviews Report	Reports work fine.
View the Ads Summary Report	Reports work fine.
View the Offers Report	Reports work fine.
View the Dashboard	Reports work fine.

The Booksale – UAT Results for Christopher Cagurungan

Table #10

UAT Step	Actual Results
Register New Account	Expected output ok.
Login Successfully	Expected output ok.
Invalid Login	Expected output ok.
View and Update the Details of a Specific Account	Expected output ok.
View and Update the Profile Photo of a Specific count	Expected output ok.
View and Change the Password of a Specific Account	Expected output ok.
View and Change the Preferences of a Specific Account	Expected output ok.
Search for an Existing Ad	Expected output ok.
Search for an Existing Ad with Filter	Expected output ok.
Access an Existing Ad Using Quick View	Expected output ok.
Access an Existing Ad Using Categories	Expected output ok.
Access an Existing Ad Using Categories with Filters	Expected output ok.
View the Details of an Existing Ad	Expected output ok.
View Other Ads Related to the Current Ad's Genre or Author	Expected output ok.
View Sellers Where Previous Customers Bought Items Related to the Current Ad	Expected output ok.

Post a New Ad	Expected output ok. I can see the ad later.
Update an Existing Ad	Expected output ok.
Post a Rate and Review of the Seller	Expected output ok.
Post a Rate and Review of the Buyer	Expected output ok.
View the Reviews Report	Expected output ok.
View the Ads Summary Report	Expected output ok.
View the Offers Report	Expected output ok.
View the Dashboard	Expected output ok.

The Booksale – UAT Results for Alice Tolentino

Table #11

UAT Step	Actual Results
Register New Account	Result checked correctly.
Login Successfully	Result checked correctly.
Invalid Login	Result checked correctly. Got an error message as expected.
View and Update the Details of a Specific Account	Result checked correctly.
View and Update the Profile Photo of a Specific count	Result checked correctly.
View and Change the Password of a Specific Account	Result checked correctly.
View and Change the Preferences of a Specific Account	Result checked correctly.

Search for an Existing Ad	Result checked correctly.
Search for an Existing Ad with Filter	Result checked correctly.
Access an Existing Ad Using Quick View	Result checked correctly.
Access an Existing Ad Using Categories	Result checked correctly.
Access an Existing Ad Using Categories with Filters	Result checked correctly.
View the Details of an Existing Ad	Result checked correctly.
View Other Ads Related to the Current Ad's Genre or Author	Result checked correctly.
View Sellers Where Previous Customers Bought Items Related to the Current Ad	Result checked correctly.
Post a New Ad	Result checked correctly. Was able to post ok.
Update an Existing Ad	Result checked correctly.
Post a Rate and Review of the Seller	Result checked correctly.
Post a Rate and Review of the Buyer	Result checked correctly.
View the Reviews Report	Result checked correctly.
View the Ads Summary Report	Result checked correctly.
View the Offers Report	Result checked correctly.
View the Dashboard	Result checked correctly.

The Booksale – UAT Results for Dolly Gagni

The System Usability Scale

Another list of questions answered by the users was the System Usability Scale

questionnaire. This was sent to them as an added check for The Booksale to determine its usability. The users recorded their responses on an online survey created using the website LimeSurvey.com (<https://thebooksale.limequery.com/945192>).

Table #12

SUS Question	Kristine	Casilyn	Daisy	Mara	Ariel
(1 – Strongly Disagree, 5 – Strongly Agree)					
I think that I would like to use this system frequently.	5	5	4	4	4
I found the system unnecessarily complex.	2	2	2	1	1
I thought the system was easy to use.	4	4	4	5	5
I think that I would need the support of a technical person to be able to use this system.	1	1	2	2	1
I found the various functions in this system were well integrated.	4	5	4	5	5
I thought there was too much inconsistency in this system.	2	1	2	1	1
I would imagine that most people would learn to use this system very quickly.	4	4	4	5	5

I found the system very cumbersome to use.	1	1	2	1	1
I felt very confident using the system.	4	5	4	5	5
I needed to learn a lot of things before I could get going with this system.	4	2	3	2	1

The Booksale – SUS Results for all responses received, Part 1

Table #13

SUS Question	Cherry	Amie	Christo	Alice	Dolly
(1 – Strongly Disagree, 5 – Strongly Agree)			pher		
I think that I would like to use this system frequently.	5	4	4	4	4
I found the system unnecessarily complex.	1	1	1	2	2
I thought the system was easy to use.	5	4	5	4	4
I think that I would need the support of a technical person to be able to use this system.	1	2	1	2	2
I found the various functions in this system were well integrated.	4	4	4	4	4

I thought there was too much inconsistency in this system.	1	2	1	2	2
I would imagine that most people would learn to use this system very quickly.	5	4	5	4	4
I found the system very cumbersome to use.	1	2	1	2	2
I felt very confident using the system.	5	4	5	4	4
I needed to learn a lot of things before I could get going with this system.	1	4	1	4	2

The Booksale – SUS Results for all responses received, Part 2

Discussion

Looking at the UAT results submitted, it could be determined that after performing the instructed steps, the users were able to achieve the same results as the expected ones. Apart from some minor comments, all of which were fixed in the Test environment, all features presented in the UAT were successfully completed by the users. By this, it strongly suggested the project would be able to achieve its intended goals.

At the System Usability Scale survey, The Booksale got a SUS average score of 84 or B. According to John Brooke's SUS document, to calculate the SUS score result: "... first sum the score contributions

from each item. Each item's score contribution will range from 0 to 4. For items 1, 3, 5, 7, and 9 the score contribution is the scale position minus 1. For items 2, 4, 6, 8 and 10, the contribution is 5 minus the scale position. Multiply the sum of the scores by 2.5 to obtain the overall value of SU. SUS scores have a range of 0 to 100". Five of the users gave the application a SUS score between 70 to 75, or C, while the other five gave a SUS score between 90 to 97.5, or A. It could be determined from the difference in their responses that some of the users can quickly adapt to a new web application while the rest could not easily do so.

Chapter VI

CONCLUSION

The Booksale was created to try and accomplish three objectives. The first was to provide an additional avenue for the sale of e-books, and new and used paperback books for small enterprises and private owners. Its second objective was to allow verified book owners, without the need to pay any fee, to sell as many of their books as they want while putting in as much information about them as they can. Finally, its third objective was to provide a classified ads website specifically dedicated to books.

Using the UAT questions where the users successfully posted and updated their book ads, the first two objectives could be considered as met. Firstly, they were able to create ads for books and e-books, used or new. Secondly, they were able to post as little or as much as they want. Lastly, by going through the UAT questions that view the ads and their categories, it could be confirmed that the third objective was successfully met.

As such, based on the UAT results, together with the SUS feedbacks, it could be concluded that the project achieved its objectives.

Chapter VII

RECOMMENDATIONS

While The Booksale achieved the objectives it aimed for, there were more tasks that needed completion for it to attain a status of being the main classified ads website for books. Though it was the only one of its kind at the time of this project's completion, continuous improvement on it could ensure it kept its status despite other competing sites popping up in the future.

Firstly, the creation and completion of its Administrator pages should be done. These pages would be for the approval and administration of both user and ad requests. This was where the administrator checked if a user request or an ad request is legitimate or not (like spam). He would then decide whether to approve or reject it. They were especially needed for when the usage of The Booksale increased. In addition, a page like the current Dashboard report could also be replicated to focus on the overall website's user and ad statistics.

The inclusion of Google Analytics into The Booksale was also a research activity that could be undertaken. Apart from having a free standard version, it would help track and analyze visitor traffic to the website.

Last but not least was the improvement of its current recommender system. A first approach to do this was to make a huge effort to increase the number of The Booksale's users and ads. As the number of its users and ads increased, so would the dataset used for the recommender system. Another was to make use of another criterion for

displaying results aside from just the number of ad views. A criterion that could be stored and used was the book ratings. Finally, the storage and analysis of its users' search keywords would give added value to the recommender system's dataset.

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APPENDICES

Deliverables and Milestones

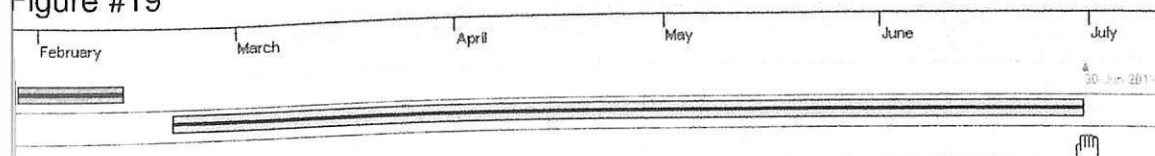
The Project Timeline Summary

Figure #18

GANTT project		
Name	Begin date	End date
◦ Requirements Planning	29-Jan-2018	12-Feb-2018
◦ User Design 1	20-Feb-2018	29-Jun-2018
▢ ◦ Rapid Construction 1	02-Sep-2018	18-Nov-2018
▢ ◦ Coding	02-Sep-2018	09-Nov-2018
◦ Initial Pages	02-Sep-2018	17-Oct-2018
◦ Page - Categories	18-Oct-2018	19-Oct-2018
◦ Page - Search	20-Oct-2018	22-Oct-2018
◦ Page - Quick View	23-Oct-2018	23-Oct-2018
◦ Page - Post Ads - Update	24-Oct-2018	24-Oct-2018
◦ Page - Seller Review by Buyer	25-Oct-2018	27-Oct-2018
◦ Page - Buyer Review by Seller	28-Oct-2018	28-Oct-2018
◦ Page - (Pred Analytics) Other Ads by Genre and Author	29-Oct-2018	01-Nov-2018
◦ Page - (Pred Analytics) Other Sellers Customer Bought	02-Nov-2018	04-Nov-2018
◦ Page - (Data Analytics) Reviews Report	05-Nov-2018	05-Nov-2018
◦ Page - (Data Analytics) Offers Report	06-Nov-2018	06-Nov-2018
◦ Page - (Data Analytics) Dashboard	07-Nov-2018	08-Nov-2018
◦ Page - (Privacy) Privacy, Terms, FAQs	09-Nov-2018	09-Nov-2018
◦ Unit Testing and Uploading of Test Plans	10-Nov-2018	10-Nov-2018
▢ ◦ Prototype Test by the Users	11-Nov-2018	18-Nov-2018
◦ Prototype Test by the Users	11-Nov-2018	16-Nov-2018
◦ Preview for Dr. Borromeo	17-Nov-2018	18-Nov-2018
▢ ◦ Cutover	19-Nov-2018	20-Nov-2018
◦ Submission of Manuscript Draft	19-Nov-2018	19-Nov-2018
◦ Final Presentation via Google Hangouts	20-Nov-2018	20-Nov-2018

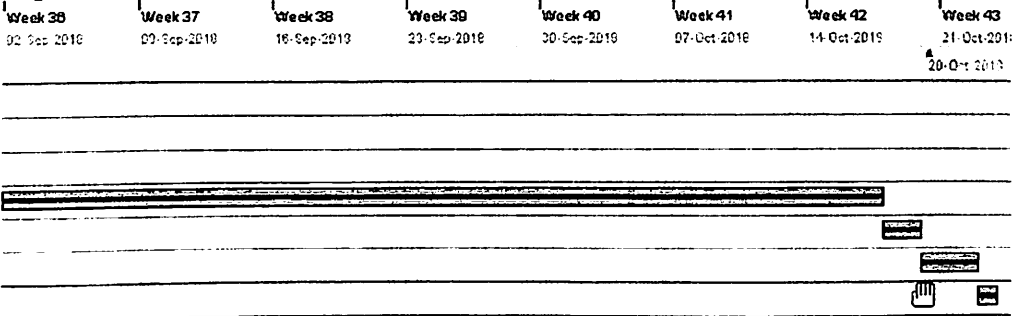
The Booksale – Project Timeline Summary

Figure #19



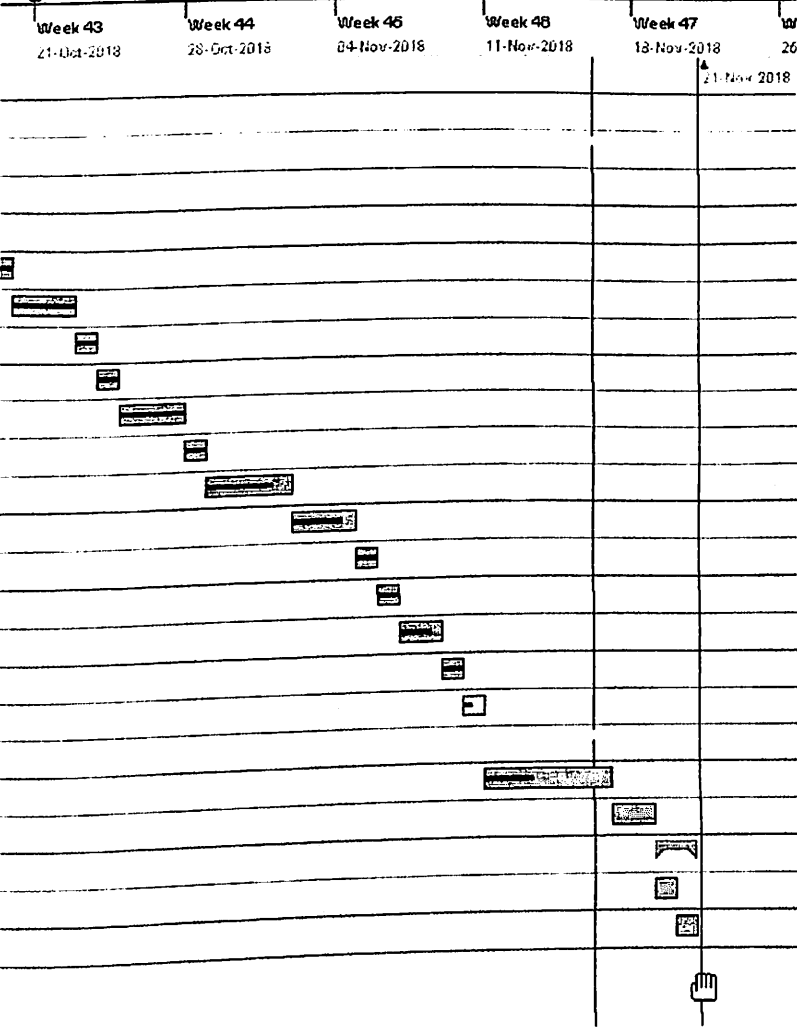
The Booksale – Project Timeline Summary – Chart – Part 1

Figure #20



The Booksale – Project Timeline Summary – Chart – Part 2

Figure #21



The Booksale – Project Timeline Summary – Chart – Part 3

Table #14

Phase	Date	Deliverables
Requirements Planning	Jan 29, 2018 – Feb 12, 2018	Concept Paper

User Design 1	Feb 20, 2018 – Jun 29, 2018	Project Proposal, Preliminary SRS
Rapid Construction 1: Coding	Sept 2, 2018 – Nov 9, 2018	The Booksale Web Application (Prototype 1, Ready for Unit Testing Version)
Rapid Construction 1: Unit Testing and Uploading of Test Plans	Nov 10, 2018	The Booksale Web Application (Prototype 1, Ready for UAT Version), UAT and Unit Testing Test Plans
Rapid Construction 1: Prototype Test	Nov 11, 2018 – Nov 18, 2018	User Acceptance Test Results, System Usability Scale Results
Cutover	Nov 19, 2018 – Nov 20, 2018	The Booksale Web Application (Live Version), Final Project Documentation (with Complete Program Listing, Technical Reference, User's Manual)

The Booksale – Project Deliverables and Milestones

Budget

Table #15			
Item	Amount	Comments / Assumptions	
Web Hosting	PHP	3,085.00	Currently on a Free Service from GearHost.com. If needed, it will be upgraded to the USD5/month (Php

			260) plan, which will be USD60/month for a year (Php 3,085)
Design Template	PHP	1,000.00	In addition to Stock Photos, a design template will also be used to save coding time. If needed, a paid premium template will be acquired.
Miscellaneous	PHP	3,000.00	For other unplanned expenses like Prepaid loading cards for contacting clients in the Philippines from Singapore
Total	PHP	7,085.00	

The Booksale – Budget

Qualifications

Knowledge, Skill, and Experience. Despite my lack of experience on the Project Management and Business Analysis side, I had written applications for Windows desktop and the web since my first job in 2001.

Apart from learning Visual Basic 6.0 and HTML in college, most of the technical knowledge I learned was from the jobs I’ve been on. Although this didn’t allow me to focus on one technology, it allowed me to study several of them to be good enough to develop with them. These technologies included Development Frameworks and Tools like Borland Delphi, Classic ASP, ASP .Net using C#, Visual Basic 6.0, IBM CT, and JSP. Other technologies I learned through my work included

Business Intelligence applications like Qlikview, and Database Systems like FoxPro, Microsoft Access, Microsoft SQL Server, Oracle, and SAS.

After graduating in 2001, I found a job as a Software Engineer for LBC Group of Companies. It was there that I handled projects such as their Point-of-Sales system for Pre-Need products, the import of their payroll files from DBF to SQL Server, and an Intranet site for inquiring a parcel's delivery status. Between 2004 and 2005, I was as a Software Developer for Insular Life Assurance Company, first as a consultant then as a permanent employee. The major project I worked on during this period is the SQL Server Data Transformation Service that generates text files and uploads them onto a SAS Datawarehouse. After a 6-month stint as a Senior Programmer for the University of Santo Tomas' IT Department to work on a Business Intelligence tool developed using JSP, I was hired on a similar post as a consultant for Philam Systems in 2006. Among the projects I handled while I was there were their web-based application for managing access to applications and their sales consultants' Financial Calculator.

At the end of 2006, I found work in Singapore as a Software Engineer seconded to Maybank Singapore. Apart from my task of maintaining and supporting the teller application which ran on IBM OS/2, I also developed several applications including one that clipped and encrypted captured images of a customer's signature and another that served as an interface between IBM's Teller Assist Unit and the teller application. Finally, I had been with my current employer, Aon Singapore, since 2009. I was initially a consultant hired to maintain their

Reinsurance Broking System. When I became a permanent employee, I also developed other applications such as web applications that loaded the contents of excel files into the datawarehouse, maintained tables on the database, and managed client servicers' budget forecasts.

Summary of Accomplishments. Going back to my time in college, my first accomplishment was when I graduated Magna Cum Laude. Then at my first job, I barely knew the company's development tools when I started work. But before I left almost three years later, I was one of their developers with multiple applications released in the Production environment. On my next employment, I was one among their contract staff who was eventually hired as a permanent employee. When I moved to Singapore, I was able to adapt to my first Singapore employer's development tool of choice, IBM CT. Apart from releasing some enhancements to their teller application, I also deployed several applications onto their Production environment, most of which were still running years after I left the company. Lastly, the team I belonged to in Aon Singapore previously only had two functions, datawarehouse management, and report creation. But after I joined and developed web applications that served the team's internal clients, our team's role expanded to a third function, the development of intranet sites that managed the datawarehouse's contents.

Learning Agenda. Since I started working in 2001, I was always a one-man development team. While I did learn a lot on my own in terms of technical skills, I never acquired the knowledge needed for how an

application is developed throughout its life cycle, especially from the point of view of a Project Manager and a Business Analyst. Through this project and its wide range of requirements other than the application, I hoped to finally acquire that necessary knowledge and achieve my potential as more than just an application developer.

Educational Background. From a small technical school in Dasmariñas, Cavite named Southern Luzon College, I received my Bachelor’s Degree in Computer Science. During graduation, I was fortunate enough to receive a Best in Thesis award, along with my team, and managed to earn the distinction for Magna Cum Laude.

Contributors / Collaborators

Table #16

Cherry Gagni	Former Team Lead, Systems Analyst and Programmer for Maybank Singapore. Her Systems Analysis, Logic and Programming skills will provide invaluable help throughout the whole project.
--------------	---

The Booksale – Contributors / Collaborators

Resources

Table #17

GearHost.com	The web hosting site where The Booksale will be uploaded. It provides a free service for a limited amount of resources. But a premium and paid service can also be acquired from
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	GearHost should the need arise.
Classix Template	The paid HTML template used to easily create a template for The Booksale
Font Awesome	Provides additional fonts and graphics for use within the website
Visual Studio 2017 Community Edition	The development tool that will be used to create the web application using the ASP .Net framework and the C# programming language.
SQL Server 2012 Express Edition	This free version of the Microsoft's SQL Server will be used as the RDBMS during the development of the website. Once it is deployed, the SQL Server version used by the web hosting site will be utilized.

The Booksale – Resources

Program Listing

All source codes were uploaded at GitHub. It could be accessed using this link:

<https://github.com/iimnemesis/TheBooksale>

Technical Reference

Table #18

Hardware	Number of CPUs: 4 x 1.6 GHz CPU (recommended) Memory (GB): 7 (recommended) Storage (GB): 200 (recommended)
Operating System	Windows Server 2008 or higher

Programming	C# using ASP .Net (using Visual Studio 2017)
Language	HTML with CSS and Javascript
Server Applications	IIS 7.0 or higher
Used	ASP .Net 3.5 Framework or higher
	Microsoft SQL Server 2012 or higher

The Booksale – Final System Specifications

Maintenance Plan

To successfully publish a copy of The Booksale using Visual Studio 2017, all that was needed was the TheBooksale.sln file and all files and folders inside TheBooksale folder. Once opened using Visual Studio 2017, it can then be published to a web server using its Publish option. For the web application to work on any new server after publishing, it should have the correct ConnectionString to connect to the database and at least the recommended hardware and software requirements.

User Manual

1. Menu and Access

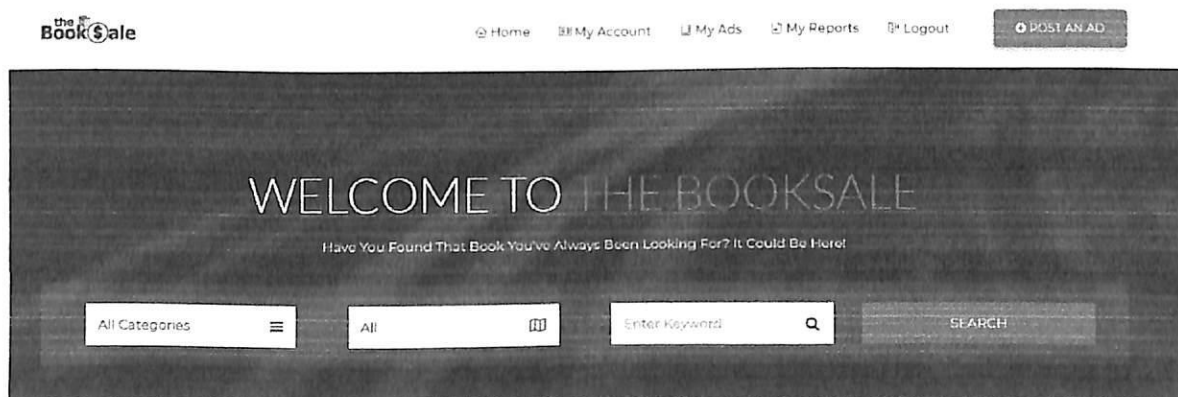
The Booksale can be accessed using a web browser like Safari, Internet Explorer, Firefox or Chrome. The URL of The Booksale is:

<http://thebooksale.gear.host/>

If you are not a registered user, you should be able to see Home, Login, SignUp and Post an Ad, plus some additional pages accessible to an unregistered user.



But if you're a registered user and have logged in, you should be able to see Home, My Account, My Ads, My Reports, Logout.



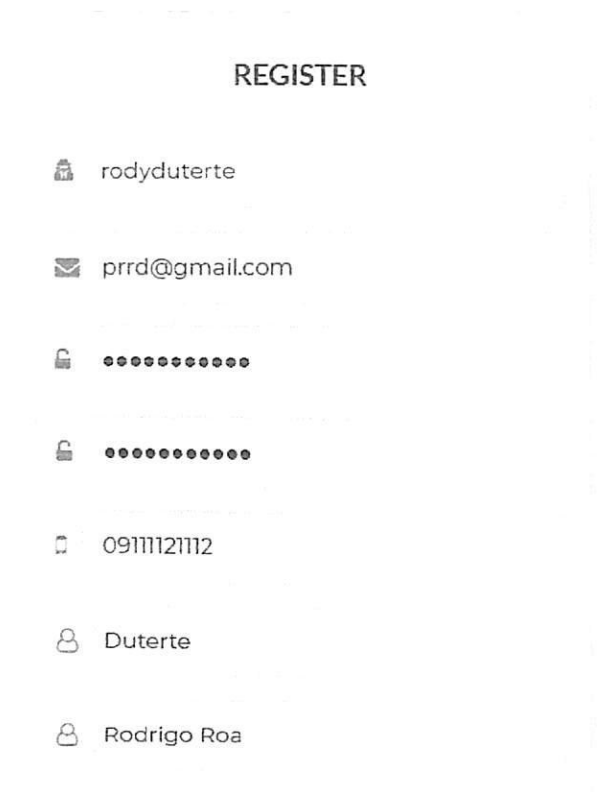
2. Account Administration and Security

2.1 Register for a New Account

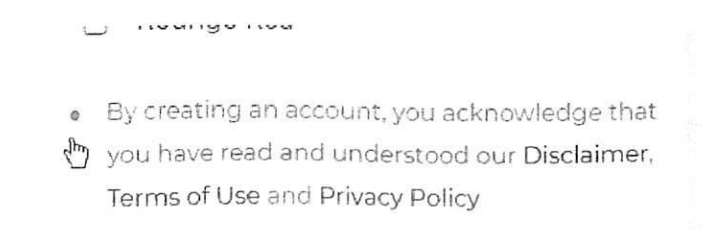
On the Menu, click on the Sign Up button



Enter a valid value for all the fields



Click on the Confirmation option that states “By creating an account, you acknowledge that you have read...”



After making sure that the confirmation has been clicked and that all fields have been completely filled up, click on the Sign Up button.

[Terms of Use and Privacy Policy](#)

Sign Up

A page should then appear saying that the account will be available soon.

JOIN THE BOOKSALE

✓ Your account will be available soon.

After a successful review, you should receive an e-mail notification once your account has been activated.

2.2 Login

On the Menu, click on the Login button.

[Home](#)

[Login](#)

[Signup](#)

[POST AN AD](#)

Enter a valid Username and Password.

LOGIN

Click on the Submit button.

Submit

2.3 Updating the Details of an Account

After successfully logging in, click on My Account from the menu.

[Home](#)

[My Account](#)

[My Ads](#)

[My Reports](#)

[Logout](#)

[POST AN AD](#)

Set a new value for the following fields: Province, City, Name to Display, Address, Birthdate (in the format yyyy-mm-dd or by using the datepicker), Biography.

Province Metro Manila City Manila City

First Name
Rodrigo Roa

Last Name
Duterte

Name to Display
PRRD

Email prrd@gmail.com

Address
Malacanan Palace

Philippines Contact Number 09111121112

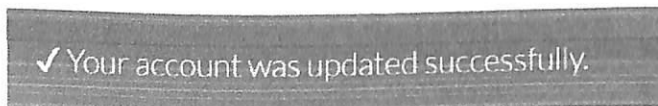
Birthdate
1945-03-28

Biography
Philippine President and former Mayor of Davao City

Click on the Update button.



A page will then appear saying the account was updated successfully.



2.4 Upload a Profile Photo

After successfully logging in, click on My Account from the menu.



Scroll down until the Profile Photo section is visible. Click on the Plus "+" sign to show the Profile Photo upload option.



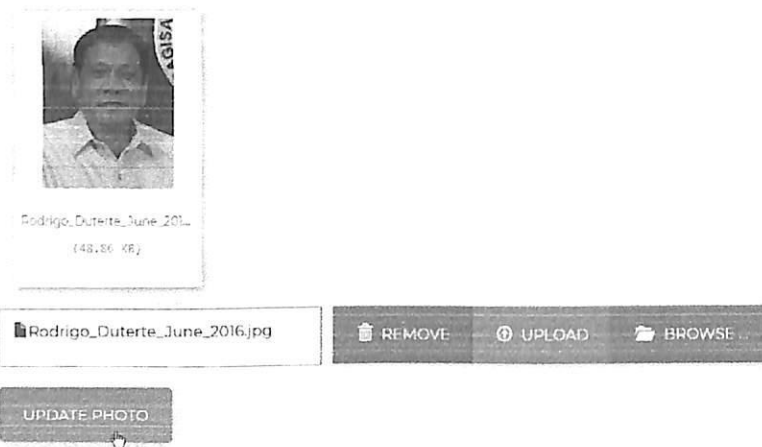
Click on the Browse button.

Profile Photo

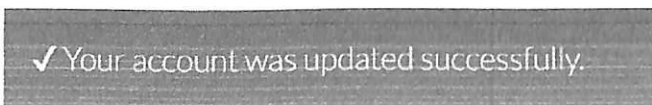


Select the required JPEG photo (*.jpg or *.jpeg) then click on the Open button. Then click on the Update Photo button.

Profile Photo

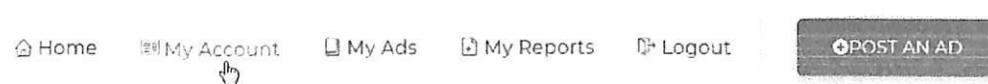


A page will then appear saying the account was updated successfully.



2.5 Change Password

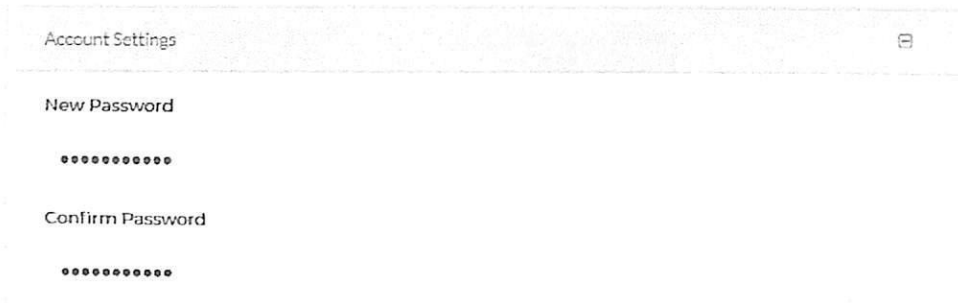
After successfully logging in, click on My Account from the menu.



Scroll down until the Account Settings section is visible. Click on the Plus “+” sign to show the password change option.



Key in the new password under the New Password textbox then key it in again at the Confirm Password textbox.



Account Settings

New Password

.....

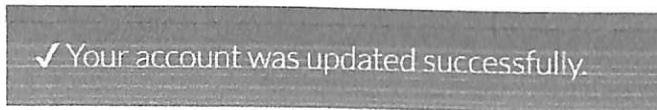
Confirm Password

.....

Click on the Update Security button.



A page will then appear saying the account was updated successfully.

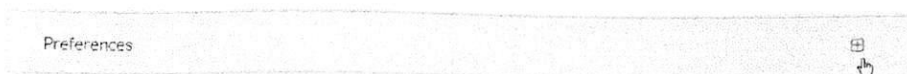


2.6 Change Preference

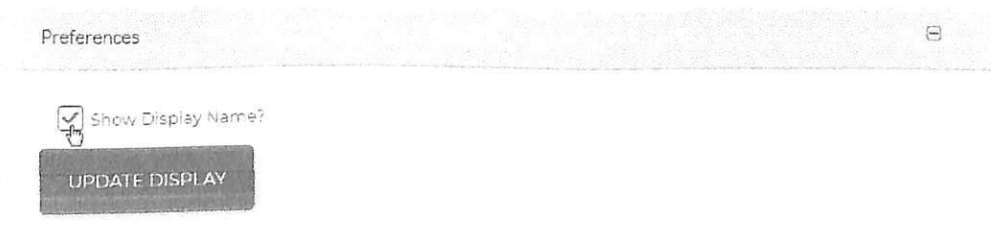
After successfully logging in, click on My Account from the menu.



Scroll down until the Preferences section is visible. Click on the Plus “+” sign to show the options for preferences.



Click on the Show Display Name checkbox to mark it with a check if the Display Name is to be displayed instead of the full name. Then click on the Update Display button.



Preferences

☒ Show Display Name?

UPDATE DISPLAY

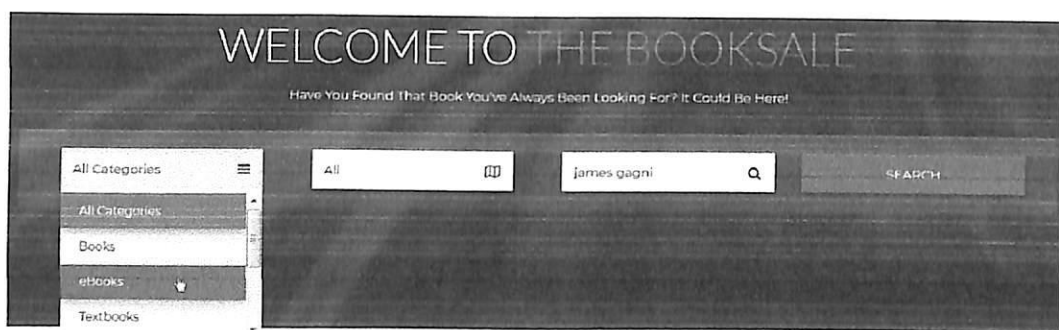
A page will then appear saying the account was updated successfully.

✓ Your account was updated successfully.

3. Viewing the Book Ads

3.1 Search

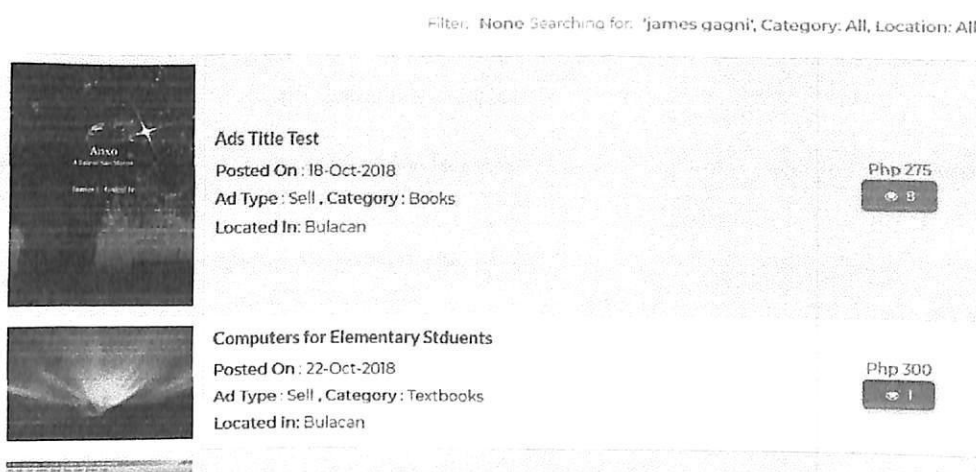
Enter the keywords to search for at the Search Textbox. The Category and Province can also be used as an additional filter.



Click on the Search button.



A page displaying the results of the search will be displayed. On top of the results, the search keyword will also be displayed.



If needed, additional filters can be set. Set a filter for condition by clicking on the Condition dropdownlist and selecting a preferred condition.

FILTERS

CONDITION ▼

All

All

New

Used

Set a filter for the price by keying both a Minimum and Maximum amount.

PRICE ▼

From

200

To

450

Click on the Apply Filter button. To remove the filter, click on the Remove Filter button

APPLY FILTERS

REMOVE FILTERS

The result of the search and the filters will be shown. On top of the results, the type and values of the Filter will also be displayed together with the search keyword.

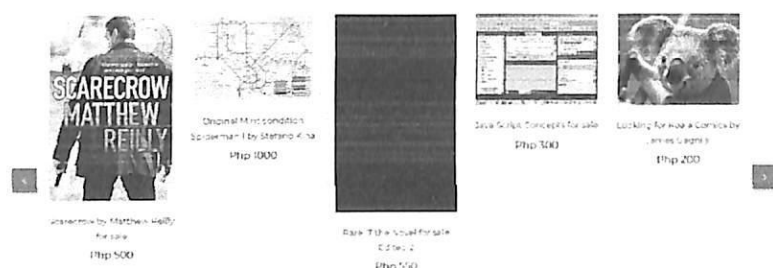
Filter: Condition = 'Used', Price = 200 to 450 Searching for: 'james gagni', Category: All, Location: All

	Computers for Elementary Students Posted On : 22-Oct-2018 Ad Type : Sell , Category : Textbooks Located In: Bulacan	Php 300 
	Java Script Concepts for sale Posted On : 06-Nov-2018 Ad Type : Sell Category : Books	Php 300 

3.2 Quick View – Latest Books Posted

To access the Latest Books Posted, on the Main Page, scroll down until the “Latest Book Ads Posted” section is reached. Photos of the latest ads should be displayed.

LATEST BOOK ADS POSTED



3.3 Categories

To access the Categories, on the Main Page, click on one of the available categories or click on View More to see all ads regardless of category.

BROWSE BY CATEGORY

VIEW MORE



BOOKS



EBOOKS



TEXTBOOKS



MAGAZINES



COMICS



OTHERS

A page showing the ads related to the category will be displayed. On top of the results, the category selected will also be displayed.

Category: All Categories Filter: None



Ads Title Test

Php 275

Sell: 18-Oct-2018 - Books - Bulacan

8

Ads Describe Test



Beerkada Boxed Set

Php 700

Sell: 03-Nov-2018 - Comics - Metro Manila

0

Beerkada Boxed Set for only 700 by Lyndon Gregorio



Computers for Elementary Students

Php 300

Sell: 22-Oct-2018 - Textbooks - Bulacan

1

Computers for Elementary Students. The latest book written for

If needed, additional filters can be set. Set a filter for condition by clicking on the Condition dropdownlist and selecting a preferred condition.

FILTERS

CONDITION

All
New
Used

Set a filter for the price by keying both a Minimum and Maximum amount.

PRICE

From

200

To

450

Click on the Apply Filter button. To remove the filter, click on the Remove Filter button

APPLY FILTERS

REMOVE FILTERS

The ads related to the category, plus the additional filters, will be displayed. On top of the results, the type and values of the Filter will also be displayed together with the category selected.

Category: All Categories Filter: Condition = 'Used', Price = 200 to 500



Computers for Elementary Students

Sell: 22-Oct-2018 - Textbooks - 9 Bulacan

Computers for Elementary Students. The latest book written for elementary students by renowned computer expert James Gagni Jr. On sale for only 300. It was only used by my grandchild for a year.

Php 300



High School Creative Writing Book

Sell: 18-Oct-2018 - Books - 9 Bulacan

High School Creative Writing Book for sale at only 100. By Carlton Cuse of Lost.

Php 200



JavaScript Concepts for sale

Sell: 06-Nov-2018 - Books - 9 Bulacan

Php 300

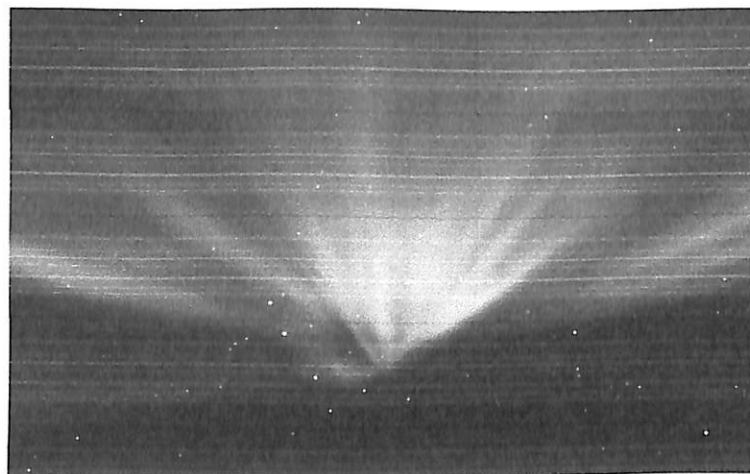


3.4 Viewing the Details of the Book Ad

After performing a Search, using the Quick View or the Categories, a list of Ads will be displayed. Upon clicking on the Ad, its details will then be displayed.

Computers for Elementary Students

For sale by Alice 22-Oct-2018 from Calumpit, Bulacan



BOOK AD DETAILS

Computers for Elementary Students. The latest book written for elementary students by renowned computer expert James Gagni Jr. On sale for only 300. It was only used by my grandchild for a year.

Author: James Gagni Jr.
Price: Php 300
Type: Textbooks, Elementary,
For Sale
Location: Calumpit, Bulacan
Condition: Used

If a registered user is logged in, the contact details and Review button are visible (left photo). If not, they won't be shown (right photo).

📞 639452253824

✉️ alice@gmail.com

Posted by 👤 Alice

👤 VIEW ALICE'S PROFILE

👤 REVIEW SELLER

📞 (Log-in to show Contact
Phone)

✉️ (Log-in to show Contact Email)

Posted by 👤 Alice

👤 VIEW ALICE'S PROFILE

3.5 Other Ads Related to the Current Ad's Genre or Author

At the Book Ad's Details page, scroll down until the sections for "Interested in these other... items?" and "...How about other books by..." is reached. Other ads related to the current ad's genre or author will be displayed.

INTERESTED IN THESE OTHER FICTION - HORROR, MYSTERY & SUSPENSE ITEMS?



Looking for Tales of San Marco
by James F. Gagni Jr.
Php 500

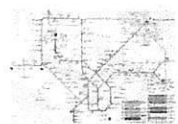


Stephen King Pet Sematary for
sale
Php 200



Scarecrow by Matthew Reilly
for sale
Php 500

...HOW ABOUT OTHER BOOKS BY STEFANO KINA?



3.6 Sellers Where Customers Bought Items Related to the Current Ad

At the Book Ad's Details page, scroll down until the section for "...And they may have that book you're looking for..." is reached. Other sellers where previous customers bought items related to the current ad will be displayed.

...AND THEY MAY HAVE THAT BOOK YOU'RE LOOKING FOR...



Chloe



Khet

4. Ads Posting

4.1 Post a New Ad

After successfully logging in, on the Menu, click on the Post An Ad button.

[Home](#) [My Account](#) [My Ads](#) [My Reports](#) [Logout](#)



Select the Category, SubCategory, Ad Type and Condition. Select the Author. If it is not in the list, select "Other" and enter the Author's Name.

POST A FREE CLASSIFIED AD

Category	Textbooks	Sub Cat	College	Ad Type	Sell
Condition	Used	Author	Other		

Author

Stephen Van Evera

Enter the Ad's Title, Description, and Price. Click the Negotiable checkbox if the price is negotiable.

Ad title

Political Science book for college students by Stephen Van Evera

Describe ad

Political Science book for college students by Stephen Van Evera. This is only for Php 500

Price

Php 500

☒ Negotiable

At the Featured Image, upload the Main Photo for the Ad. Click on the Browse button. Select the required JPEG photo (*.jpg or *.jpeg) then click on the Open button. Apart from the Main Photo, an additional two Photos can be uploaded at the Other Images fields. **Note:** Only JPEG files are allowed, and each file must be less than 2MB. Add up to 3 photos. Use a real image of your product, not catalogs.

ADD IMAGES TO YOUR AD

Featured Image



StephenVanEvera_PoliticalScience.jpg

REMOVE

UPLOAD

BROWSE ...

Other Images

BROWSE ...

BROWSE ...

Only JPEG files are allowed and each file has to be less than 2MB. Add up to 3 photos. Use a real image of your product, not catalogs.

Click on the checkbox for the agreement to the terms.

By using our site, you acknowledge that you have read and under:

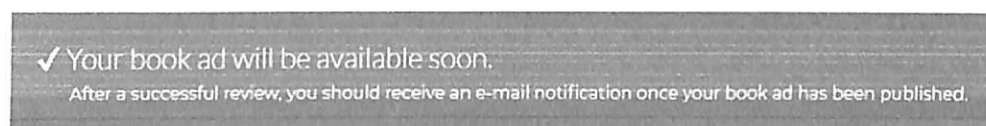


☒ I agree to the Disclaimer, Terms of Use and Privacy Policy

Click on the Submit for Review button.



A page will be displayed saying the book ad will be available soon

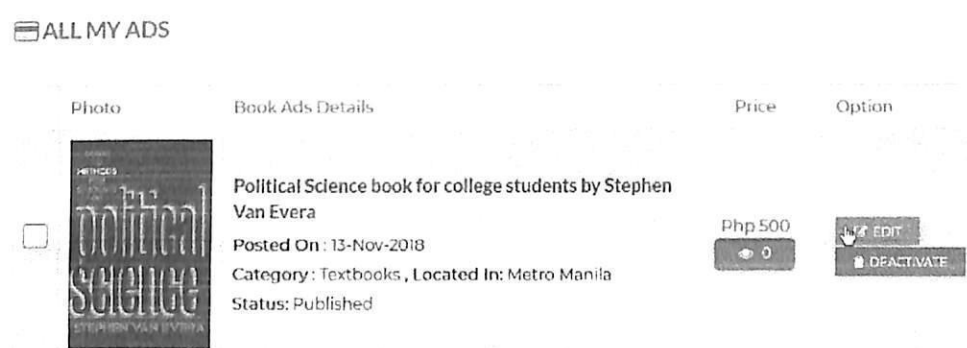


4.2 Update an Existing Ad

After successfully logging in, on the menu, click on the My Ads from the menu.



On the My Ads Page, look for the ad that needs to be updated and click on the Edit button next to it.



If needed, make the necessary Updates. Select the Category, SubCategory, Ad Type and Condition. Select the Author. If it is not in the list, select "Other" and enter the Author's Name. Enter the Ad's Title, Description, and Price. Click the Negotiable checkbox if the price is negotiable. At the Featured Image, upload the Main Photo for the Ad. Click on the Browse button. Select the required JPEG photo (*.jpg or *.jpeg) then click on the Open button. Apart from the Main Photo, an additional two Photos can be uploaded at the Other Images fields. Click on the checkbox for the agreement to the terms.

Ad title

Political science book for college students By Stephen Van Evera

Describe ad

Political Science book for college students By Stephen Van Evera. This is only for Php 700

Price

Php 700

☒ Negotiable

REPLACE THE IMAGES IN YOUR AD



Click on the Resubmit for Review button.



A page will be displayed saying the book ad will be available soon.

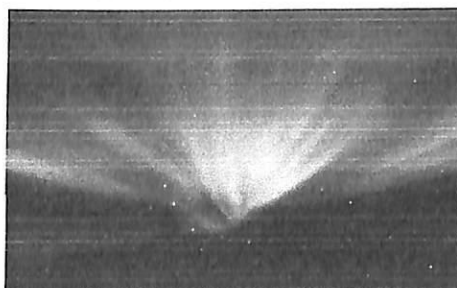


5. Seller and Buyer Review

5.1 Post a Rate and Review of the Seller

Login successfully. Then after performing a Search, using the Quick View or the Categories, a list of Ads will be displayed. Upon clicking on the Ad, its details will then be displayed.

Computers for Elementary Students



BOOK AD DETAILS

Computers for Elementary Students. The best book written for elementary students by renowned computer expert Tomas Jaggi. It is for sale for only 300. It was only used by my grand child for a year.

Author: Tomas Jaggi
Price: Php 300
Type: Textbooks, Elementary
For Sale
Location: Cagayan de Oro
Condition: Used

Scroll down to the Review Seller button and click on it.



At the Rate the Seller page, select the Rating and key in the Review.

RATE "CHRISTOPHER CAGURUNGAN" AS A SELLER

Click on the checkbox to Agree to the Terms of Use.

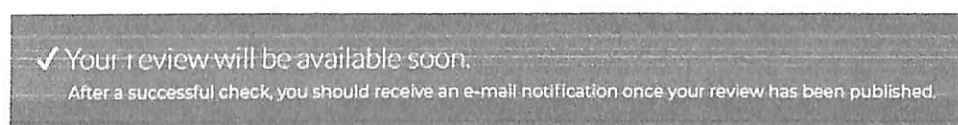
By using our site, you acknowledge that you have read and understand

☒ I agree to the Disclaimer, Terms of Use and Privacy Policy

Click on the Submit Review button.

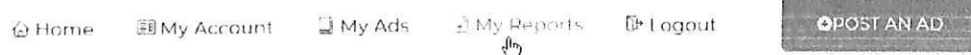


A page will be displayed saying the review will be available soon.



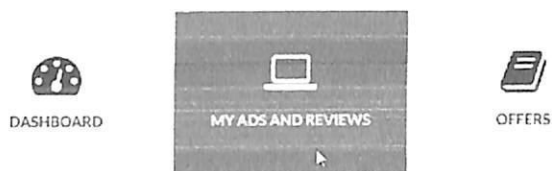
5.2 Post a Rate and Review of a Buyer

After successfully logging in, on the menu, click on the My Ads from the menu.



On the My Reports page, click on My Ads and Reviews.

VIEW THE REPORTS



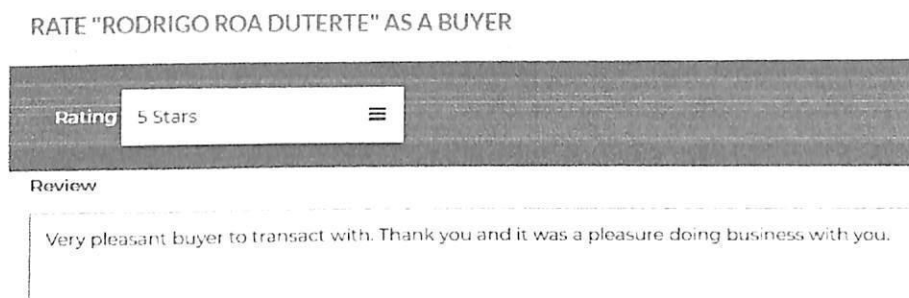
From the left panel, click on Reviews as a Seller.



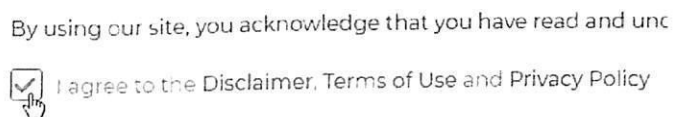
At the selected review, click on the name of the Reviewer.



At the Rate the Seller page, select the Rating and key in the Review.



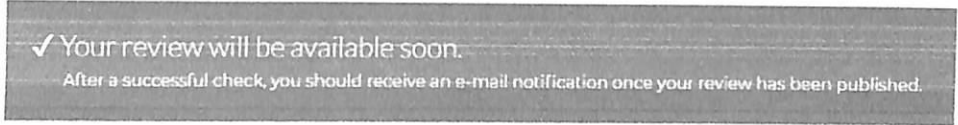
Click on the checkbox to Agree to the Terms of Use.



Click on the Submit Review button.



A page will be displayed saying the review will be available soon.



6. Seller Reports

6.1 View the Reviews Report

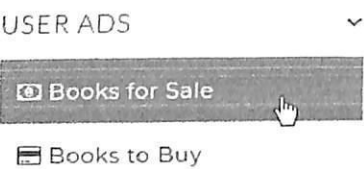
After successfully logging in, on the menu, click on the My Ads from the menu.



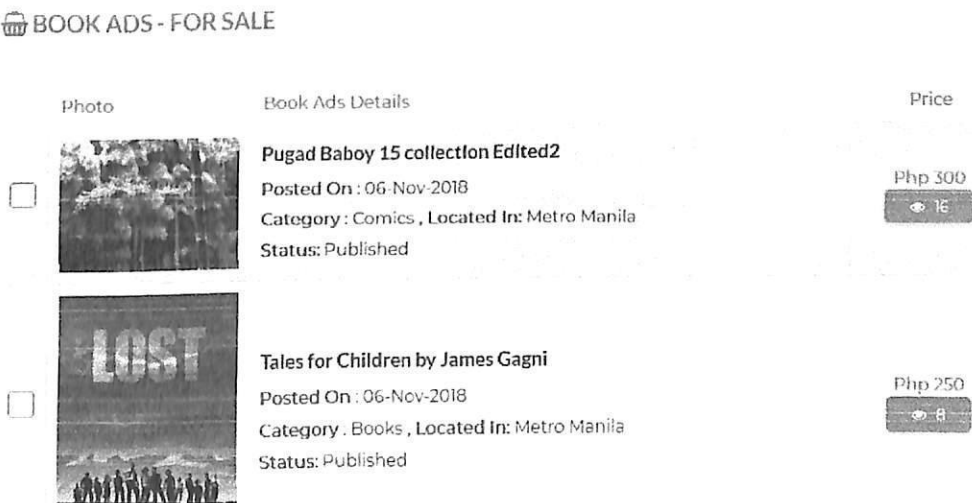
On the My Reports page, click on My Ads and Reviews.



From the left panel under User Ads, click on Books for Sale or Books to Buy.



A list of book ads either for sale or to buy will be displayed.



6.2 View the Offers Report

After successfully logging in, on the menu, click on the My Ads from the menu.



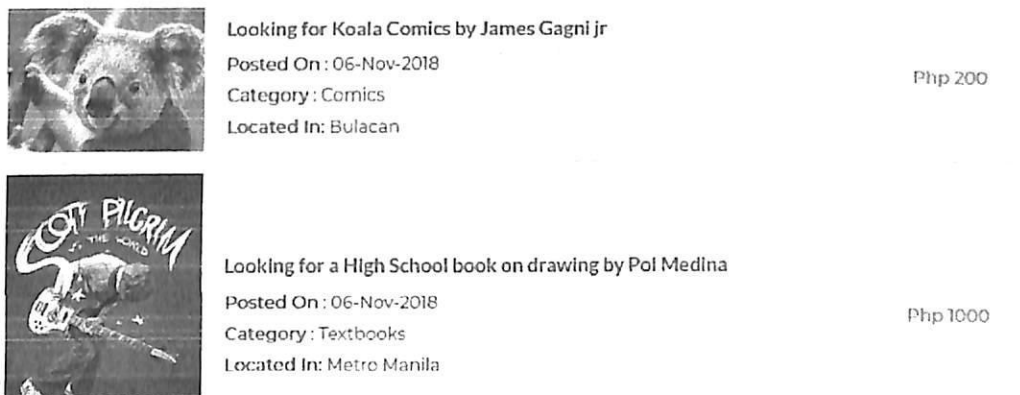
On the My Reports page, click on Offers.

VIEW THE REPORTS



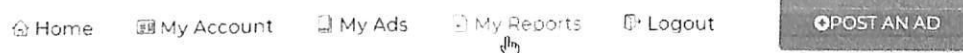
A list of all book ads which other customers are looking for will be displayed.

BOOKS OUR CUSTOMERS ARE LOOKING FOR



6.3 View the Dashboard

After successfully logging in, on the menu, click on the My Ads from the menu.



On the My Reports page, click on Dashboard.

VIEW THE REPORTS



Some statistics regarding the user will be displayed.

DASHBOARD



7. FAQ

7.1 What are the guidelines when I post an ad about my book?

More information about the guidelines can be found on the FAQs found on The Booksale website.

7.2 Who should I contact if I have questions?

You can contact Star Wits Apps via our various social media accounts or you can send us an email at StarWitsApps@gmail.com.