

ReSource

Software Architectural Design

Submitted to:

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Unique Reference:

The documents are stored in the <https://github.com/mathena828/ReSource>. referenced with ReSource - Architectural Design.pdf.

Purpose:

The purpose of this document is to consolidate all the classes elaborated in the preceding workshops. This encompasses the User Interface Design, Data Design, and Analysis Model. This is presented in a single software architecture. The categorical relevance of each is demonstrated by the use of package diagrams.

Audience:

The target audience of this document is the CS 191 and CS 192 Software Engineering classes of the academic year 2019 to 2020, as well as other individuals who may need to evaluate the functional requirements of this project. The members of Group No. 2, namely, Jaira Mathena B. Angeles, Danilo M. Mendoza II, and Beatrice Pauline R. Mercado will be creating and referencing this model. Professor Ma. Rowena C. Solamo will be evaluating the contents of this submission to ensure that it fulfills the criteria for this academic requirement.

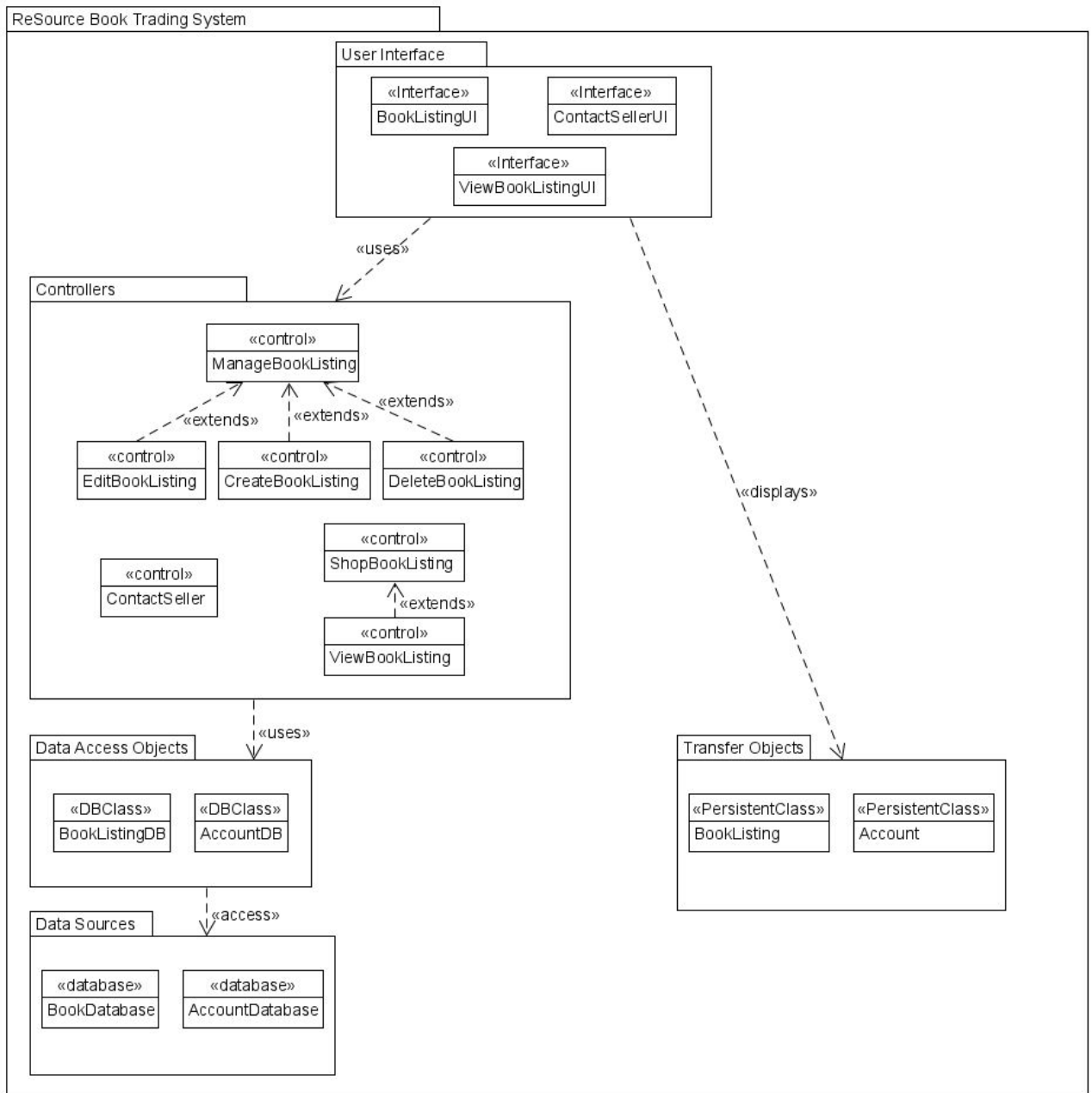
Revision Control:

<i>Revision Date</i>	<i>Person Responsible</i>	<i>Version Number</i>	<i>Contribution/Modification</i>
10/30/2019	Jaira Mathena Angeles	1.0	She wrote the preface, system name, and description. She also filled out the User Interface Package, Controllers Package, and Data Sources Package tables.
10/30/2019	Beatrice Pauline Mercado	2.0	She filled out the tables for the Data Access Object Packages and Transfer Object Packages part of the document.
11/01/2019	Danilo Mendoza II	3.0	He added the revised software architecture model.

System Name: ReSource Book Trading System

Description: This system describes the way transactions are facilitated on the web application ReSource. It described the respective actions that buyers and sellers can perform on this platform. The buyers and sellers are both able to correspond with one another in order to coordinate the details of the exchange. Buyers are, to be precise, able to search for specific book listings and set-up a chat room with the seller of said product. Likewise, sellers can manage book listings by maintaining their own inventories. This chain of events represents how product listings are posted by sellers and ultimately purchased by buyers within the system.

Revised Software Architecture Model:



User Interface Package:

Screen Name	Description
BookListingUI	<p>This is the screen of the seller to the system whenever they need to maintain a book listing within their personal inventory.</p> <p><i>Attributes:</i></p> <pre> private DecimalField priceDF; private TextField titleTF; private TextField authorTF; private TextField genreTF; private TextField synopsisTF; private TextField publisherTF; private DateField publicationDateDF; </pre>

	<p><u>Responsibilities:</u></p> <p>public void enterBookListing (int price, String title, String author, String genre, String synopsis, String publisher, Date publicationDate)</p> <p>public void submitBookListing (BookListing A)</p>
ViewBookListingUI	<p>This is the screen of the buyer to the system whenever they need to find a book listing from the ReSource database.</p> <p><u>Attributes:</u></p> <p>private TextField searchCriteriaTF;</p> <p><u>Responsibilities:</u></p> <p>public String enterSearchCriteria ()</p> <p>public BookLisitng getBookListing (String searchCriteria)</p>
ContactSellerUI	<p>This is the screen of the buyer to the system whenever they need to contact the seller to inquire about a specific book listing.</p> <p><u>Attributes:</u></p> <p>private TextField messageTF;</p> <p><u>Responsibilities:</u></p> <p>public String enterMessage ()</p> <p>public String sendMessage (String message)</p> <p>public String receiveMessage (String message)</p> <p>public String displayMessage (String message)</p>

Controllers Package:

Controller Name	Description
ManageBookListing (abstract)	<p>This is the control that manages book listings. It is considered an abstract class.</p> <p><u>Attributes:</u></p> <p>private BookListing theBookListing;</p>
CreateBookListing (extends ManageBookListing)	<p>This is the control that adds a book listing to the system. It extends ManageBookListing.</p> <p><u>Attributes:</u></p> <p>private BookListing theBookListing;</p> <p><u>Responsibilities:</u></p>

	public void createBookListing (BookListing A)
EditBookListing (extends ManageBookListing)	<p>This is the control that updates a book listing in the system. It extends ManageBookListingContoller.</p> <p><i>Attributes:</i></p> <p>private BookListing theBookListing;</p> <p><u><i>Responsibilities:</i></u></p> <p>public void editBookListing (BookListing A)</p>
DeleteBookListing (extends ManageBookListing)	<p>This is the control that removes a book listing in the system. It extends ManageBookListingContoller.</p> <p><i>Attributes:</i></p> <p>private BookListing theBookListing;</p> <p><u><i>Responsibilities:</i></u></p> <p>public void deleteBookListing (BookListing A)</p>
ShopBookListing (abstract)	<p>This is the control that shops book listings. It is considered an abstract class.</p> <p><i>Attributes:</i></p> <p>private String searchCriteria;</p> <p>private String message;</p>
ViewBookListing (extends ShopBookListing)	<p>This is the control that searches for book listings in the system. It extends ShopBookListing.</p> <p><i>Attributes:</i></p> <p>private String searchCriteria;</p> <p><i>Responsibilities:</i></p> <p>public BookListing getBookListing (String searchCriteria)</p>
ContactSeller	<p>This is the control that facilitates the exchange of books through the system. It extends ShopBookListing.</p> <p><i>Attributes:</i></p> <p>private String message;</p> <p><i>Responsibilities:</i></p> <p>public String displayMessage (String message)</p>

Data Access Objects Packages:

DAO Name	Description
BookListingDB	<p>This database is responsible for storing and retrieving book listing records</p> <p><u>Attributes:</u></p> <p>private BookListing a</p> <p><u>Methods:</u></p> <p>public void createBookListing(BookListing a);</p> <p>public void editBookListing(BookListing a);</p> <p>public void deleteBookListing(BookListing a);</p>
AccountDB	<p>This database is responsible for storing and retrieving account records</p> <p><u>Attributes:</u></p> <p>private Account a</p> <p><u>Methods:</u></p> <p>public void createAccount(Account a);</p> <p>public void editAccount(Account a);</p> <p>public void deleteAccount(Account a);</p>

Transfer Objects Package:

Class Name	Description
BookListing	<p>This persistent class is responsible for holding a single book listing record.</p> <p><u>Attributes:</u></p> <p>private int price</p> <p>private String title</p> <p>private String author</p> <p>private String genre</p> <p>private String synopsis</p> <p>private String publisher</p> <p>private Date pubDate</p> <p>private String seller</p> <p><u>Methods:</u></p> <p>private void setPrice(int BookPrice);</p> <p>private void setTitle(String BookTitle);</p> <p>private void setAuthor(String BookAuthor);</p> <p>private void setGenre(String BookGenre);</p> <p>private void setSynopsis(String BookSynopsis);</p> <p>private void setPublisher(String BookPublisher);</p> <p>private void setPubDate(Date BookPubDate);</p> <p>private void setSeller(String BookSeller);</p> <p>private int getPrice();</p> <p>private String getTitle();</p> <p>private String getAuthor();</p> <p>private String getGenre();</p> <p>private String getSynopsis();</p> <p>private String getPublisher();</p> <p>private Date getPubDate();</p> <p>private String getSeller();</p>
Account	<p>This persistent class is responsible for holding a single account record.</p> <p><u>Attributes:</u></p> <p>private String username</p> <p>private String email</p> <p>private String name</p> <p>private String location</p> <p><u>Methods:</u></p> <p>private void setUsername(String AccountUsername);</p> <p>private void setEmail(String AccountEmail);</p> <p>private void setName(String AccountName);</p>

	<pre>private void setLocation(String BookLocation); private String getUsername(); private String getEmail(); private String getName(); private String getLocation();</pre>
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Data Sources Package:

File Name or Database Name	Description
BookDatabase	This is the data source of book listing records found in a relational database system.
AccountDatabase	This is the data source of account records found in a relational database system.