**Lab 7: System Sequence Diagram (SSD)**

**Book Emporium is an online seller of books. Use Visio to create an SSD based on the use case description below:**

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| --- | --- | --- |
| **Use Case Name:** | Place a book order | |
| **Scenario:** | Purchase a book | |
| **Triggering Event:** | A buyer/customer decides to purchase a book from Book Emporium’s website. | |
| **Brief Description:** | Buyer/customer searches for a book(s) on Book Emporium’s website. Customer selects from search results and adds a book(s) to the shopping cart. Customer then proceeds to checkout. If an account exists, the customer confirms purchase, and the system sends a confirmation e-mail to the customer. If an account doesn’t exist, an account is created, the purchase is confirmed, and the confirmation e-mail is sent. | |
| **Actors:** | Buyer, Seller | |
| **Preconditions:** | Books and book information must exist in the system. | |
| **Postconditions:** | Customer account must exist.  Order must be placed.  Confirmation e-mail must be sent to seller. | |
| **Flow of Activities:** | Actor | System |
| 1. Buyer searches for a book(s).  2. Buyer selects a book(s) to buy from search results.  3. Repeat steps 1 and 2 until all desired books are added to shopping cart.  4. Buyer proceeds to checkout by clicking the Checkout button.  4a. If buyers wish to remove an item, they select the item to be removed and then click the Delete button.  4b. If buyers wish to add an item, they click the Continue Shopping button and proceed to steps 1 & 2.  5. Buyer verifies displayed information.  6. If information is incorrect or buyer account does not exist, buyer updates displayed information or enters new information into the registration form.  7. Buyer confirms purchase. | 1.1 Searches for all matches related to buyer’s search criteria.  2.1 Creates shopping cart. Adds selected item(s) to the shopping cart.  4.1 Displays list of shopping cart items for verification.  4a.1 Displays list of shopping cart items with deleted items removed.  5. Displays buyer information.  6.1 Updates new buyer information for existing account.  6.2 Creates account for new buyer and sends confirmation.  7.1 Records order.  7.2 Sends e-mail to seller. |
| **Exception Conditions:** | 1.1 If book is sold out, buyer cannot add book to shopping cart.  2.1 If buyer account does not exist, a new account must be created. If buyer is rejected for new account based on credit, system sends buyer notification.  3.1 If payment is rejected, system notifies buyer and seller. | |

For a tutorial on how to draw an SSD in Visio, see <https://youtu.be/53jSzTW5r-M>

The late submission policy applies.