**Customer Theory**

**Internet Bookstore:**

The bookstorewill be web based initially, but it must have a sufficiently flexible architecture that alternative front-ends may be developed (Desktop/RIA, Web Services, etc.).The bookstore must be able to sell books, with orders accepted over the Internet. The user must be able to add books into an online shopping cart, prior to checkout. Similarly, the user must be able to remove items from the shopping cart. The user must be able to maintain wish lists of books that he or she wants to purchase later. The user must be able to cancel orders before they’ve shipped. The user must be able to pay by credit card or purchase order. It must be possible for the user to return books. The bookstore must be embeddable into associate partners’ websites using minicatalogs, which are derived from an overall master catalog stored in a central database. The mini-catalogs must be defined in XML, as they will be transferred between this and (later to be defined) external systems. The shipping fulfillment system shall be carried out via Amazon Web Services The user must be able to create a customer account, so that the system remembers the user’s details (name, address, credit card details) at login. The system shall maintain a list of accounts in its central database. When a user logs in, his or her password must always be matched against the passwords in the master account list. The user must be able to search for books by various search methods—title, author, keyword, or category—and then view the books’ details. It must be possible for the user to post reviews of favorite books; the review comments should appear on the book details screen. The review should include a customer rating, which is usually shown along with the book title in book lists. Book reviews must be moderated—that is, checked and “OK’d” by a member of staff before they’re published on the website. Longer reviews should be truncated on the book details screen; the customer may click to view the full review on a separate page. It must be possible for staff to post editorial reviews of books. These should also appear on the book details screen. The bookstore shall allow third-party sellers (e.g., second-hand bookstores) to add their own individual book catalogs. These are added into the overall master book catalog so that sellers’ books are included in search results.

The bookstore must be scalable, with the following specific requirements:

* The bookstore must be capable of maintaining user accounts for up to 100,000 customers in its first six months, and then a further 1,000,000 after that.
* The bookstore must be capable of serving up to 1,000 simultaneous users (10,000 after six months).
* The bookstore must be able to accommodate up to 100 search requests per minute (1,000/minute after six months).
* The bookstore must be able to accommodate up to 100 purchases per hour (1,000/hour after six months).