

World's Smallest Bookstore

# Requirements Specification

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# Executive Summary

## Project Overview

The World's Smallest Bookstore provides customers with the ability to browse, review, and purchase books.

## Purpose and Scope of this Specification

The purpose of this document is to document the requirements of the system in the form of a document.

### In scope

* Documentation of things and stuff pertaining to the World's Smallest Bookstore

### Out of scope

* Documentation of things and stuff not pertaining to the World's Smallest Bookstore
* Things and stuff other than documentation of requirements

# Product/Service Description

This section describes general factors that affect the product and its requirements.

## Product Context

The system operates independently of other applications. It is offered as an Internet product that can be accessed using conventional Internet access mechanisms.

## User Characteristics

The intended user of the system is a human who possesses the ability to read and a desire to exercise that ability.

## Assumptions

Users of the system are assumed to have access to the Internet.

## Constraints

This section will describe any design constraints.

## Dependencies

List dependencies that affect the requirements.

## Requirements

### Priority Definitions

The following definitions are intended as a guideline to prioritize requirements.

* MUST – The requirement is a “must have” as outlined by policy/law
* SHOULD – The requirement is needed for improved processing, and the fulfillment of the requirement will create immediate benefits
* MAY – The requirement is a “nice to have” which may include new functionality

A good requirement is:

* Correct
* Unambiguous (all statements have exactly one interpretation)
* Complete (where TBDs are absolutely necessary, document why the information is unknown, who is responsible for resolution, and the deadline)
* Consistent
* Ranked for importance and/or stability
* Verifiable (avoid soft descriptions like “works well”, “is user friendly”; use concrete terms and specify measurable quantities)
* Modifiable (evolve the Requirements Specification only via a formal change process, preserving a complete audit trail of changes)
* Does not specify any particular design
* Traceable (cross-reference with source documents and spawned documents).

## Functional Requirements

In the example below, the requirement numbering has a scheme - BR\_## for Business Requirement.

| Req# | Requirement | Priority | Date Rvwd | SME Reviewed / Approved |
| --- | --- | --- | --- | --- |
| BR\_01 | The system MUST display a list of all books in the database | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_02 | The system MUST allow the user to select a book from the list of available books | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_03 | The system MUST allow the user to select a book to add to their shopping card | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_04 | The system MUST allow the user to remove a book from their shopping cart. | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_05 | The system MUST allow the user to change the quantity of a book in their shopping cart | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_06 | The system SHOULD indicate the remaining stock on hand for each book | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_07 | The system SHOULD calculate sales tax during checkout | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_08 | The system MAY calculate an estimated delivery date for purchases | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_09 | The system MUST display a list of all authors in the system | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_10 | The system MUST allow users to search for books by title | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_11 | The system MUST allow users to search for books by author | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_12 | The system MUST allow users to search for books by genre | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_13 | The system MUST allow administrators to add authors to the database | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_14 | The system MUST allow administrators to add genres to the database | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_15 | The system MUST allow administrators to add books to the database | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_16 | The system MUST allow administrators to associate books with authors | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_17 | The system MUST allow administrators to associate books with genres | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_18 | The system MAY allow administrators to associate authors with genres | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_19 | The system SHOULD allow customers to post reviews | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
| BR\_20 | The system SHOULD allow customers to reply to existing customer reviews | 1 | 10/33/5 | Bob Dylan, Mick Jagger |
|  |  |  |  |  |

## User Interface Requirements

See wireframes.

## Usability

The user interface will adhere to best practices for usability.

The system will support Section 508 requirements for accessibility.

The web interface will adhere to the Web Content Accessibility Guidelines 2.0.

## Performance

When the system is operating under normal load, 95% of transactions shall be processed in less than 3 seconds. Capacity

### Latency

Include explicit latency requirements, e.g., the maximum acceptable time (or average time) for a service request.

## Manageability/Maintainability

### Monitoring

Include any requirements for product or service health monitoring, failure conditions, error detection, logging, and correction.

### Maintenance

Specify attributes of the system that relate to ease of maintenance. These requirements may relate to modularity, complexity, or interface design. Requirements should not be placed here simply because they are thought to be good design practices.

### Operations

Operational characteristics:

* Backup and restore operations will not interrupt service to users
* Software updates will not interrupt service to users
* The system will be architected in a way that minimizes the impact of outages due to equipment failures, bugs, and security events

## System Interface/Integration

* System interfaces will be based on well-supported, mainstream technologies and standards as of the time the system is designed.
* Interfaces will be abstracted to the extent that they can be upgraded as technologies advance with minimal impact to the overall solution architecture.

## Security

### Protection

* Data transferred into and out of the system's control will be encrypted using encryption methods considered to be robust as of the time of design.
* Encryption mechanisms will be designed so that they can be upgraded with minimal impact to operations.
* Activity will be monitored and logged in a manner that facilitates the examination of logs by data analysis tools.
* Production operation will be actively monitored by software to look for patterns indicating fraudulent activity and/or security exploits.
* On an automated basis, erroneous transactions will be initiated as a way to probe the system for its response. Lack of appropriate response will be treated as a security breach and will trigger a high-severity incident report.

### Authorization and Authentication

Authentication will be handled by a third-party package.

Users must be registered and signed in to use system features for which they are authorized.

## Data Management

See the Data Dictionary and Logical Database Design documents for data management requirements.

## Standards Compliance

* The system will comply with regulations and standards pertaining to the protection of personally identifiable information in effect in every jurisdiction where users interact with the system.
* The system will comply with the Web Content Accessibility Guidelines (WCAG) published by the World Wide Web Consortium (for components that operate on the World Wide Web).
* The system will comply with the Section 508 Amendment to the Rehabilitation Act of 1973 (United States).

## Portability

To the extent practical, the system will be based on technologies that do not depend on any particular operating system or hardware.

To the extent practical, the system will make use of frameworks and libraries that comply with vendor-neutral standards for data formats and programmatic interfaces, and that do not themselves depend on any particular operating system or hardware.

The system will not make use of frameworks, libraries, or other underlying facilities that do not comply with the standards enumerated under section 2.15 of this document.

# User Scenarios/Use Cases

See the Massive Use Case Manual for details of use cases.

# Deleted or Deferred Requirements

This section lists any requirements that have been deleted or deferred as a result of requirements review:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Req# | Business Requirement | Status | Comments | Pri | Date Rvwd | SME Reviewed /Approved |
|  |  |  |  |  |  |  |

# Requirements Confirmation/Stakeholder sign-off

Include documentation of the approval or confirmation of the requirements here.

|  |  |  |
| --- | --- | --- |
| Meeting Date | Attendees (name and role) | Comments |
|  |  |  |