Bookstore Inventory System

Requirements Specifications

# Introduction

## Purpose

The purpose of this document is to define the requirements for the Book Inventory System (BIS) project. This project will demonstrate the basics of the Software Development Lifecycle in the context of a bookstore inventory management application. It will incorporate a list of functional requirements and a small number of use cases for the first version of the project.

## Intended Audience

The intended audience of this document is the project developer and tester, David Wilson.

## Intended Use

The intended use of this document is to gather specifications for and define use cases of the proposed book inventory system.

## Product Scope

The product will enable management of inventory and sales for a small bookstore with a single location. Its initial version will permit viewing, adding, and removing inventory; searching inventory for specific ISBNs, titles, and authors; setting store prices for inventory; making and tracking sales; and tracking members of the store’s loyalty program. This product supports only physical inventory, as opposed to e-books. It also assumes all sales are made in person at the store’s single, physical location.

## Definitions and Acronyms

The following is a list of acronyms and definitions expected to be used as part of this product, broken down by the type of record they are used to describe within the system. Many of these terms also refer to datapoints that make up a specific type of record.

### Book Records

* **Author**: The writer of a given book. Some books have multiple authors. In these cases, authors will be listed alphabetically, with the first author given as the primary author.
* **Cover Price**: The value established for the book by its publisher, so-called because it is typically listed somewhere on the book’s cover or, in the case of hardcover, inside the book’s dust jacket.
* **Edition**: A single version of a given book with similar typesetting, cover art, and contents, usually generated from the same print run or a reprinting of a specific, prior print run. They are usually identified by number starting at “1” or as “first edition,” “second edition,” etc.
* **Format**: The nature of the book’s physical binding and materials given as either “paperback” or “hardcover.”
* **International Standard Book Number (ISBN)**: A unique identifying number assigned to a specific edition and format of a given book. This is the primary identifier for a book record.
* **Quantity**: The number of copies of books matching a given ISBN that the store has in stock.
* **Store Price**: The value at which the book is sold inside the store.
* **Title**: The name given to a book by its author and shared by all editions of that book. If certain editions include a subtitle exclusive to that edition, it will not be considered part of the book’s title for the purposes of this system.

### Sales Records

* **Contents**: A list of books sold in a given order. The content of an order is organized by ISBN. Each item is also associated with a quantity and a price per item based on the store price at the time of the sale.
* **Employee ID**: The identifying number of the employee who made the sale.
* **Member ID**: The identifying number of the customer purchasing the books in the sale, assuming they are a member of the store’s loyalty program. If the customer is not a member, this value is set to “0.”
* **Sale Number**: A unique identifier assigned to a specific sale.
* **Sale**: Refers to a transaction in which the store sells a book to a customer.
* **Sales Tax**: The total value of sales tax applied to the order based on the subtotal and the sales tax percentage. A default sales tax is supplied, but this value can be adjusted within the program.
* **Subtotal**: The combined pre-tax price of each item listed in the order’s contents.
* **Total**: The final price of the order based on the combination of the subtotal and sales tax.

### Membership Records

* **Address**: The member’s mailing address.
* **Business Name**: The member’s business name, if any. This field is optional.
* **Email**: The member’s email address.
* **First Name**: The member’s first name, assuming the member is an individual.
* **Last Name**: The member’s last name, assuming the member is an individual. Customers may choose to remain Anonymous.
* **Member Lifetime Purchases**: Grand total of all sales associated with this member.
* **Member Number**: A unique identifier assigned to a specific member, starting from 1.
* **Member**: Customers may become members of the store’s loyalty program to receive newsletters and special offers. In exchange, the store is able to obtain more information about individual book sales for the purposes of analytics. An order may contain multiple books, but it can be associated with only one member.
* **Order History**: A list of sales the member has made with their account, arranged by sale number.
* **Order Value**: The dollar value in sales the member has made at the store based on their Order History.
* **Telephone**: The member’s contact telephone number.

### Employee Records

* **Address**: The employee’s mailing address.
* **Email**: The employee’s contact email address.
* **Employee Number**: A unique identifier assigned to a specific employee, starting from 1.
* **First Name**: The employee’s first name.
* **Hire Date**: The date on which the employee began working at this store.
* **Last Name**: The employee’s last name.
* **Overall Sales**: The dollar value in sales the employee has brought in for the store based on their Sales History.
* **Sales History**: A list of sales the employee has made, arranged by sale number.
* **Telephone**: The employee’s contact phone number.
* **Termination Date**: The date on which the employee ceased to work at this store.

### Intake Records

* **Contents**: A list of product obtained in a given Intake, arranged by ISBN. Each ISBN is also associated with a quantity of products with that ISBN and the sale price for each item.
* **Intake Number**: A unique identifier number representing a single purchase of stock for the store.
* **Intake**: This refers to a specific instance of the store purchasing additional stock. A given intake may include multiple ISBNs with different quantities for each.
* **Sales Tax**: The total value of sales tax applied to the Intake based on the subtotal and the sales tax percentage. A default sales tax is supplied, but this value can be adjusted within the program.
* **Subtotal**: The total, pre-tax value of all the contents in a given intake.
* **Total**: The final price of the intake based on the combination of the subtotal and sales tax.

# Overall Description

This project will create a new inventory and sales management program to assist independent, single location bookstores in tracking their stock, sales, and customers. It will enable the store to search for specific stock upon request, purchase additional stock via intake, make and track sales, and track the contributions of individual customers and employees.

## User Needs

## Assumptions and Dependencies