
No Name Software

**Bookstore Management System
For Mouseion
Version 1.0**

Bookstore Management System	Version: 1.0
Software Requirements Specification	Date: 22nd October 2023
BMS RS 1.0	

Revision History

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Software Requirements Specification

1. Introduction

1.1 Purpose

The purpose of this document is to comprehensively outline the software requirements for the bookstore management system that will be developed for Mouseion's Bookstore. These requirements were created in response to a request for proposals from Mouseion's Bookstore and have been developed through further elicitation and negotiations.

The targeted audience of this document includes the prospective developers of the software and the personnel at Mouseion, who are assisting in assessing the completeness and accuracy of the requirements.

1.2 Scope

Mouseion's BMS will consist of replacing the existing "pen and paper" management methods currently used, replacing them electronically and improving them in the following ways:

- By providing the employees and management with a simple, secure, and maintainable backend inventory system to manage orders, stock levels, renting, customer support, accounting, and other business needs.
- By giving the customers a new way to shop at Mouseion's bookstore, providing a new outlet for customers to browse, purchase or rent books and other products.
- By maintaining supply stock information with the ability to add, edit, or remove products whilst tracking precise stock levels that change based on store activity in real-time.
- By giving the customers the freedom to interact and share their opinions with fellow book lovers to assist them in finding their next reading endeavour.

1.3 Definitions, Acronyms and Abbreviations

ISBN	International Standard Book Number, A unique identifier for books.
Point of Sale System	A system used to complete sales transactions and update inventory.
Bookstore Personnel	This term refers to the employees and management team of Mouseion.
BMS	The acronym for this project is "Bookstore Management System". This project will be known as the "BMS" or the "system" from herein.
AWS	Amazon Web Services - A cloud-based computing service.
Return Policy	The set of rules and procedures that govern how and under what conditions Customers can return books or seek refunds.

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CRM	Customer Relationship Management -Includes strategy and a set of software tools used to manage and improve relationships with bookstore customers
SOP	Standard Operating Procedure
PO	Purchase Order
POS (Point of Sale)	Refers to the place in the bookstore where purchases are made
RFP	Request for Proposal
DynamoDB	Amazon Web Service's proprietary cloud storage and database medium
Cloud DB	A database built to run in a public or hybrid cloud environment to help organize, store, and manage data within an organization. It can be self-managed by an in-house IT team

1.4 References

IEEE Std 830-1998. IEEE Recommended Practice for Software Requirements Specifications. Available online at http://segal.cs.uvic.ca/seng321/lectures/IEEE_Standard_1998.pdf.

1.5 Overview

The remainder of this document contains an overall description of the system in section 2, specific requirements in section 3, followed by an exploration of the system architecture in section 4.

2. Overall Description

2.1 Product Perspective

The Mouseion Bookstore Management system is a solution designed to transform a medium-sized bookstore into a modern, customer-centric retail platform. The current system relies on a physical catalogue and Excel spreadsheets. Mouseion requires the development of a system that completely integrates and extends the functionality of its previous analogue systems.

This system aims to provide a shopping experience for customers and efficient inventory management for the bookstore. The customers will be able to purchase, borrow and review the books.

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2.2 Product Functions

The Mouseion Bookstore Management system has the following features:

- A user-friendly system that facilitates online catalog searches
- Inventory management and real-time tracking of book stock
- A user review system for customer interaction
- Customer requests for out-of-stock items
- Online books purchases with multiple payment options
- Maintaining separate inventories for book purchase and book rental systems
- Flexibility to include additional items beyond books, such as board games
- Promoting discounts and events and provide news at the bookstore
- Integration with the existing point of sale system to synchronize inventory updates
- Search system to filter based on book genre, ISBN or price

2.3 User Characteristics

There are three main groups of users who will use the system, each with their own requirements and technical skills level.

2.3.1 Inventory Managers and Store Employees at Mouseion

The inventory managers and store employees expect to use all features of the BMS including inventory management, customer support and sales in an efficient and accurate manner. Inventory managers and store employees have previous experience in the store's main functions and will ensure accuracy.

2.3.2 Customers

The Customers will use the BMS to browse, review, request, purchase, and search items. Customers will interact with the various functionalities of the BMS in a consumer manner. The user interface and experience should be intuitive and user-friendly, allowing the customer to interact with the system much like previous interactions in the store. If the customers have previous experience on other online marketplaces, they will instantly be able to understand the functionalities of BMS.

2.3.3 IT Personnel

The IT personnel will maintain and troubleshoot the BMS system. The IT personnel will ensure optimal performance, security, and functionality. The maintenance of the BMS will be taken care of by the IT team, who will also ensure necessary updates and security assessments are completed.

The IT personnel will also continue to develop the user interface and integrate the previous system into the new BMS.

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2.4 Constraints

Given by Mouseion's request, the developer of the system must follow suit in the following constraints:

2.4.1 Implementation of the old system

The BMS must implement the old system and extend its functionality by adding new features such as book searching, and book reviewing systems.

2.4.2 Accessibility by IT personnel

The BMS must require access by Mouseion's IT personnel to maintain both backend and frontend services for employees and customers.

2.4.3 User and Bookstore Employee Training

Training must be provided by the inventory manager and bookstore manager to familiarize the interface of the website and how to update the inventory online before it goes online.

2.4.4 Real-time information updates and downtime

Mouseion's BMS requires all information to be updated instantaneously with customer and employee interactions, resulting in constant cloud connection with at most 5% downtime for their system.

2.4.5 Budget Constraints

Due to the limited budget given by Mouseion, the costs should not be exceeded (including server/hosting maintenance costs, employee training costs, and system implementation costs)

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2.5 Assumptions and Dependencies

In order for the Mouseion Bookstore to function effectively, the following assumptions and dependencies apply:

2.5.1 System Database

The system assumes the availability of a suitable cloud database systems to store and manage book information and transactions

2.5.2 Network Infrastructure

The system is dependent on the availability of network infrastructure to maintain the cloud database in the backend. The system needs to be connected to the internet via local internet access, to connect users and facilitate access to the system

2.5.3 Security Measures

The system relies on the implementation of security measures such as firewalls and access controls, to protect sensitive data and ensure privacy and security of user information.

2.5.4 Tracking Hardware Integration

The system relies on the successful integration of tracking hardware, such as RFID or barcode scanners to enable real-time inventory tracking and monitoring.

2.5.5 Checkout and Purchasing Methods

For a customer to check out their products online, it is assumed that the same trusted payment vendor used in store will also be providing a similar service on Mouseion's customer website.

2.5.6 Inventory Accuracy During Utilization

During its initial setup, BMS will operate under the assumption that all data input into the system accurately reflects the inventory of Mouseionrent In addition, BMS will assume that all actions done with the inventory are done by a trustworthy employee and in proper utilization.

2.5.7 Account Login Required

BMS prompts any customer to make an account to purchase or rent a book/product but does not require an account to navigate the Mouseion catalog. BMS has a separate system for employee logins.

3. Specific Requirements

3.1 Functionality

3.1.1 The system shall track inventory and user account information

As requested in the RFP and elicitation, this is required to provide bookstore personnel with information for properly maintaining records for the bookstore "Mouseion".

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3.1.1.1 By default, the system shall maintain the following information:

- Digital Product Catalog (adding, editing, and removing products)
- Employee Identifying information (Name, Employee number, Position, Password) in the database
- Customer Identifying information (Name, Date of Birth, Username, Password) in the database
- Quantity of Each Title (books for sale and rent are counted separately)
- Reviews and Ratings
- Preferred Payment Methods
- Purchase History (saved on each account)
- Real-time Notifications (Stock Reminders, Event Advertisements)

3.1.1.2 The customer or employee account details can be updated

Any customer or employee can edit their details/credentials without the help of Mouseion's IT personnel, with an email verification process to resolve forgotten usernames or passwords

3.1.1.3 New customer and employee accounts shall be added to the system

Name, Date of Birth, Username and Password are required for creating a new customer account. Name, Employee Number, Position and password are required for creating a new employee account. This feature is essential for continued use of the system.

3.1.1.4 Any ordered product can be located

Any products ordered by customers can be tracked by the customer and the employees, based on their shipping (any purchased product, rented book, or requested product the store has ordered for a customer)

3.1.1.4.1 The following information will be logged during a purchase/borrow:

- Customer Identifying Information (Name, Username, assuming that username is unique)
- If the transaction was a borrow or a purchase
- Which item was purchased/rented(product code/ISBN)
- The date indicating when the purchase/borrow was made
- Price

3.1.1.4.2 The system provides functionality for managing book information

Book information should include title, author, ISBN, publication date, genre, price and the book's availability for rental or purchase

3.1.1.5 Rental and Purchase Distinction

Books are categorized into two separate inventories. Rent and Purchase inventory. This distinction allows the system to accurately track book availability and help customers choose the appropriate format based on their preferences.

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3.1.1.6 Real-time Inventory Updates the latest status

This feature is essential for providing customers with accurate information on book availability

3.1.2 Book review system is implemented for customer interaction

As requested in the RFP, this is required so customers can interact and this enables informed decision making.

3.1.2.1 The customer review fields shall be only modified by the customer who wrote the review

Any customers can write reviews of books they purchased or rented. Only the customer who wrote the review can modify it. This allows the integrity of the data and fairness of the review system.

3.1.2.2 Customers shall be able to write reviews or rate the item

A customer can freely rate the purchased or rented item or write a review based on the rating system.

3.1.3 Books can be searched with a search filter

As requested in the RFP, books can be searched by title, author, ISBN, publication date, genre and price. In addition, whether a book is classified as a rentable book or a purchasable book.

3.1.4 Book Renting and Account Management

To support book rentals, the system includes customer account management capabilities tailored for book renting. Customer accounts keep track of active and past book renting.

3.1.4.1 Book Renting and Due Dates

For book rentals, customers can browse available books for rental. The system calculates and displays due dates, ensuring customers know when to return the rented books.

3.1.4.2 Overdue Book Management

If the books are overdue, the system calculates applicable charges and automatically processes payments through the customer's registered payment method. This is done with a pre-authorized payment which can charge up to a maximum price (defined by Mouseion) but only charges them the regular price is returned. If a book is not returned, the customer will be charged for the maximum price of the book and the book will be removed from the used inventory.

3.1.5 Book Availability

Using the real-time inventory update status. A book can be identified as either available or unavailable when searched by a customer.

3.1.6 The website should feature prominent books

The books with the greatest amount of interaction should be promoted within the site.

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3.1.7 Inventory manager reviews requests

A customer can submit a request form for a book that is out of stock.

An inventory manager is able to review all customer book request forms to ensure proper evaluation.

3.1.8 Automatic inventory update on purchase

Each purchase within the physical store, or within the BMS automatically updates the real-time inventory.

3.2 Usability**3.2.1 Employees will be able to transfer previous skills into the new system**

As indicated in the RFP, Mouseion's previous system used Excel spreadsheets for tracking sales records and inventory management, BSM will offer an online database that takes some aspects of spreadsheet organization, allowing for skills to be transferable, resulting in less time re-training existing employees.

3.2.2 The employee user interfaces shall be intuitive

In addition to using similar database techniques as previous systems, the user interfaces will be colour coordinated, less strenuous on the eyes, utilize industry-standard design techniques, and self-explanatory symbols/imagery.

3.2.3 The customer user interface will be intuitive

The user interface for the customer side will be streamlined with a neumorphic design, making the user interface not only easy to approach for new or returning customers but appealing to all demographics.

3.2.4 Both customer and employee user interfaces shall be inclusive

Mouseion's BMS will be inclusive to all types of customers and employees with their respective physical capabilities, including:

- Simplistic designs and interaction methods for all age demographics
- Larger texts on important information (names, prices, stock levels)
- Sounds for notifications to assist notifying the users
- Visual assistance for colors (dark mode, more distinguishable colors)

3.3 Reliability**3.3.1 System Down Time**

As requested in the RFP, system down-time will be below 5%.

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3.3.2 System Load Balancing

As requested in the RFP, the system will be able to scale up in order to handle a large spike in users during their peaks in September and January.

3.4 Performance

3.4.1 Responsive User Experience

An important feature within the BMS is an efficient and user-friendly online system that facilitates catalogue searches, book purchases, and book rentals in a timely and seamless experience.

3.4.2 Load Balancing of Peak Traffic

As requested in the RFP, The system must perform in a responsive manner, especially in times of peak traffic. This will be accomplished by using load balances to scale the systems.

3.5 Supportability

3.5.1 Easy to run hardware requirements for customers and employees

The BMS is run natively using AWS and the Mouseion website, resulting in any hardware capable of running modern-day internet browsers to work for both customers and employees.

3.5.2 Existing databases will be migrated to the NEW DB

The existing Excel spreadsheet is used to store all sales records and item inventory is going to be replaced by Dynamo DB on AWS, our new cloud provider.

3.6 Design Constraints

3.6.1 Limited Budget

A limited budget calls for necessary cost-effective solutions for our server and database. Our goal of creating an efficient and seamless user experience coupled with a limited budget greatly limits our options.

3.6.2 Distinct Customer Interface Design

As requested in the RFP the system's customer interface design must be distinctive and must be intuitive, clean and quick.

3.6.3 Scalability

The BMS system should handle increased loads of traffic during certain periods of the school year. Mouseion also requests a maximum amount of downtime to 5%.

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3.7 Online User Help and Support

3.7.1 Customer Support

Employees will assist customers with inquiries and requests. The customer's complaints will be addressed and employees will work to resolve issues or disputes to the customer's satisfaction.

3.8 Purchased Components

3.8.1 Barcode Scanners

Barcode scanners will be used to update the status of books and products in the BMS system.

3.8.2 Server and Database Subscriptions with AWS

BMS will utilize AWS for online hosting and Amazon's DynamoDB for their database which require a pay-as-you-go subscription for the service, allowing cost optimization for the business based on their needs and requirements.

3.9 Interfaces

3.9.1 User Interfaces

There will be two web-based user interfaces for the employees and customers. The employee's user interface allows for management and overseeing inventory, orders, and customer activity. The second interface is for the Mouseion staff accessible from a separate webpage.

3.9.2 Hardware Interfaces

Scanners which will interact with staff to update information about books and products in the online databases

3.9.3 Software Interfaces

3.9.3.1 The system shall interact with a Dynamo Database System

DynamoDB is a budget-friendly DB which works seamlessly with AWS. On top of this, DynamoDB is extremely scalable. We will use this DB to hold all of Mouseion's items and will have a separate DB to hold client account information.

3.9.3.2 AWS Interface

We are using AWS to host the BMS. AWS is very scalable and will be able to handle all levels of traffic while keeping a high standard of performance. AWS is a pay-as-you-go service which allows for a greater manageability of finances. AWS hosts both the website and the Dynamo DB's.

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3.9.3.3 Point of Sale

The Point of Sale system is responsible for validating all the transactions performed by customers and communicating successfully to update the inventory module.

3.10 Licensing Requirements

All software developed by No Name Software is subject to the BSD license.

3.11 Legal, Copyright and Other Notices

This document and all parties discussed in this document are part of a semester project for the York University Software Engineering EECS 4412 course.

3.12 Applicable Standards

3.12.1 Payment Card Industry and Data Security Standard

Mouseion uses a payment system which includes financial information in the form of credit card payments, the PCI DSS must be complied with and followed to secure the handling and storage of credit card information.

3.12.2 User interfaces must adhere to the accessibility standards

As requested in the RFP, all interfaces complying with accessibility standards will provide the best usability for physically challenged parties. WCAG is compiled to ensure accessibility for users with disabilities.

4. System Architecture

4.1 Overall Architecture

The core of the system architecture consists of modules used by customers and Mouseion staff. The Web Interface Module is separate from the BMS core for the separation of concerns, and users and for security reasons. The BMS core contains a module for each of the main functions required by the system.

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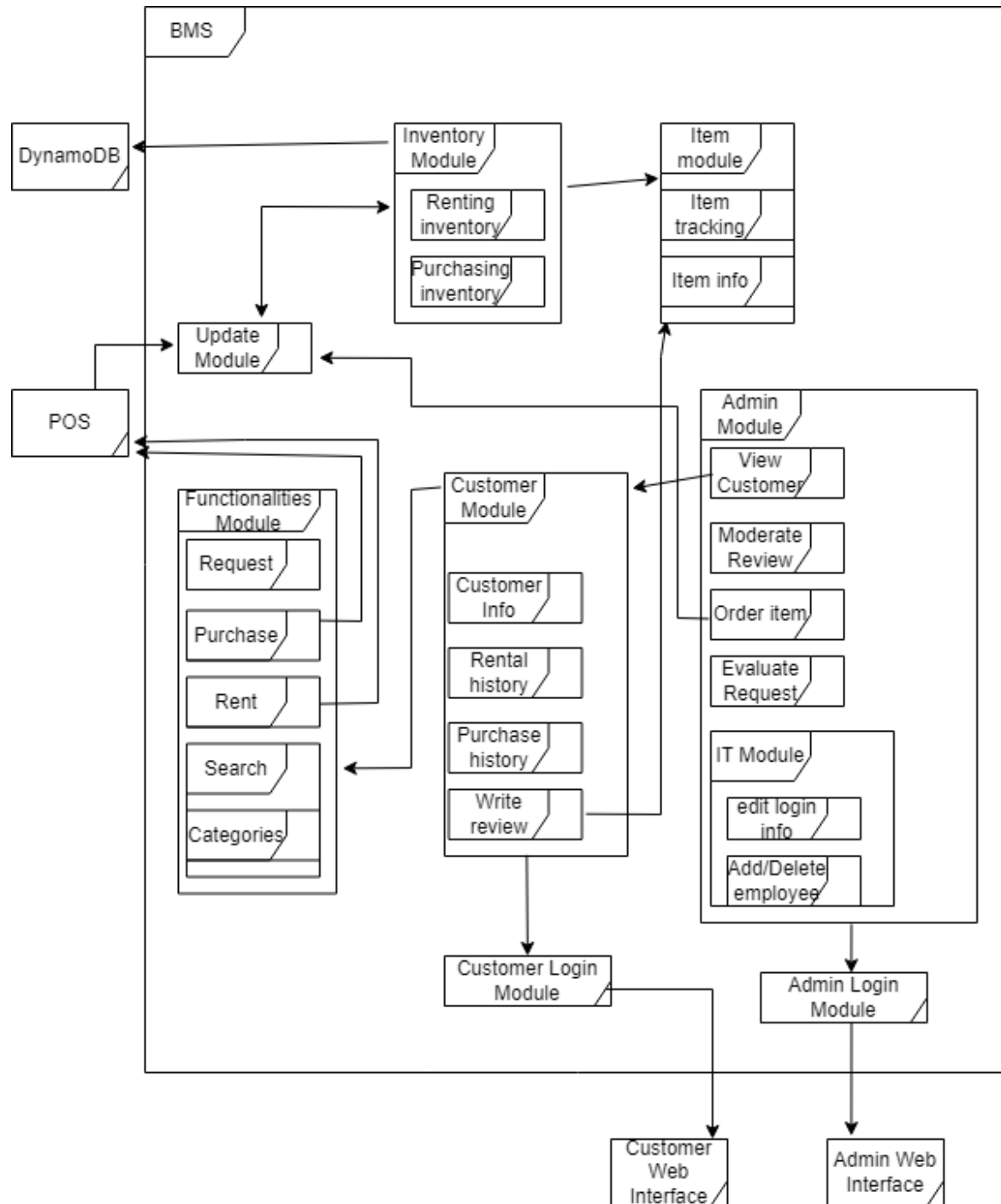


Figure 1: Software System Architecture

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4.2 Software Modules

4.2.1 Admin Module

The admin module can only be accessed by employees, management, and IT personnel, where inventory can be managed, orders can be processed and tracked, respond to customer concerns, moderate customer reviews, and view customers in the system with their respective book info.

4.2.1.1 IT

The IT module is found in the *Admin Module*, where any trusted IT personnel can add, edit, or delete a customer or employee's login information

4.2.2 Customer Module

The Customer Module is accessed by customers and is responsible for handling customer requests for rental/purchases, reviews and customer information.

4.2.3 Inventory Module

The Inventory module is responsible for receiving and updating information on existing inventory and purchases.

4.2.4 Item Module

The item module manages the item info and the tracking of an item. Each and every item uses this module. The inventory module contains items which all use the item module.

4.2.5 Functionalities Module

The functionalities module contains all functions the customer uses when accessing the BMS site. The functionalities module allows a customer to request a book, rent a book, and search books based on there respective category, author, or name.

4.2.6 Update Module

The update module provides the ability to automatically update the item inventory upon a customer purchase or upon a store employee item order.

4.2.7 Customer Login Module

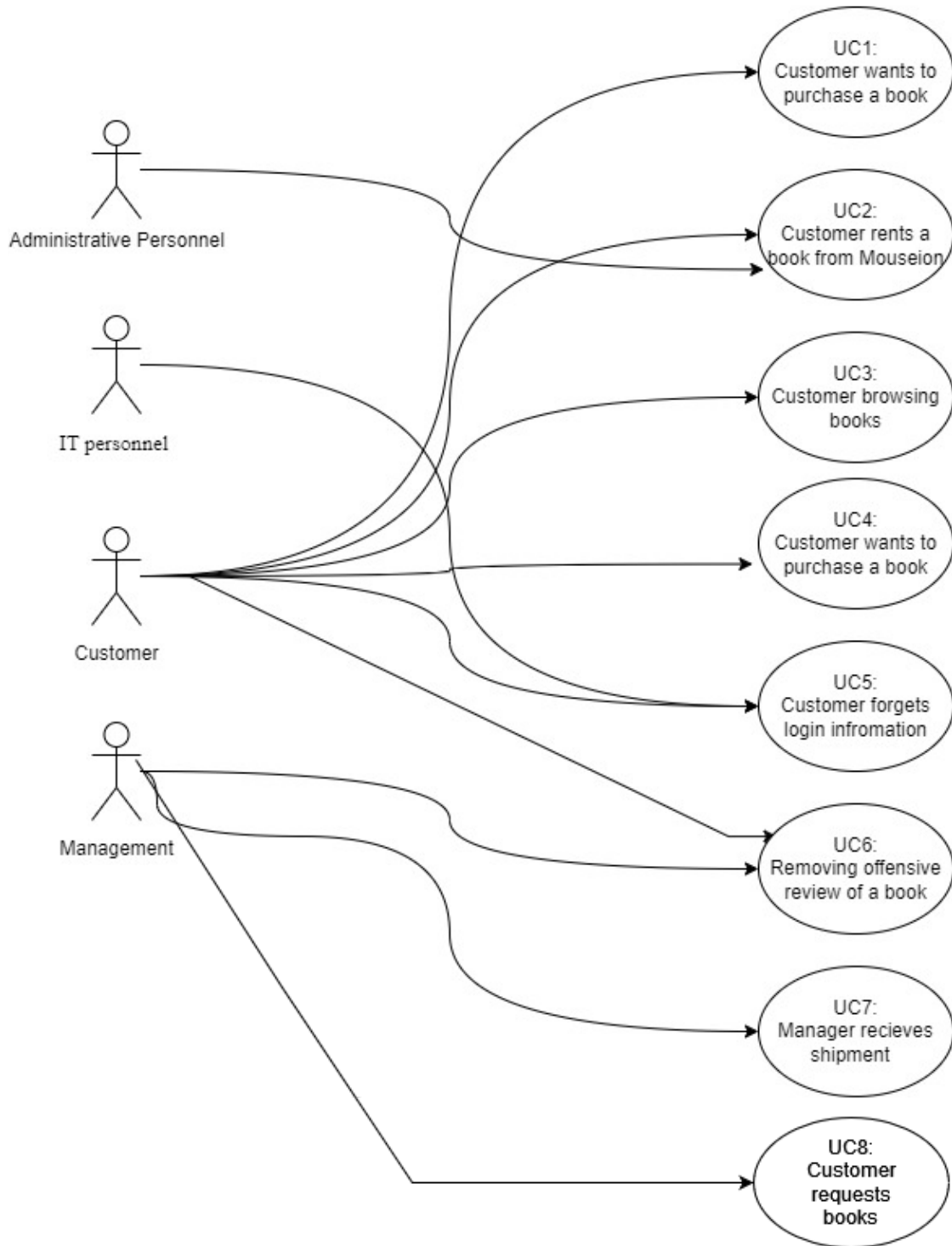
The login module used by customers, identifies the customer.

4.2.8 Admin Login Module

The login module is used by Mouseion staff and IT staff.

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4.3 Use Cases



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4.3.1 Use Case 1: Customer would like to purchase a book

Actors: Customer.

Purpose: To allow a customer to purchase a book.

Description: A customer finds a book they would like to purchase. They would proceed to the point of sale system where they will complete the purchase.

Preconditions: The book has to be available on Mouseion's system in the purchase inventory.

Postconditions: Customer will have successfully purchased a book.

Primary Scenario

Actor Action	System Response
1. The customer uses the search bar to find a known desired book.	
	2. The system presents the user with a web page of the selected book.
3. The customer selects the purchase option.	
	4. The system presents the user with the intermediary page before the Point of Sale webpage.
5. Possible alternatives: 5a, 5b	

Alternative Scenarios and Extensions

5a. The customer purchases a book as a guest	
5a i. The customer selects 'Guest'	
	5a ii. The system presents the user with the Point of Sale webpage.
5a iii. The customer selects the payment type and fills in the required fields.	
	5a iv. The book is found by Mouseion staff and is declared ready to pick up.

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5b i. The customer selects 'login'	
	5b ii. The system presents the user with a login form
5b iii. The customer inputs username and password	
	5b iv. The system logs the customer in and removes the form.
5b v. The customer selects the payment type and fills in the required fields.	
	5b vi. The book is found by Mouseion staff and is declared ready to be picked up.

4.3.2 Use Case 2: Customer rents a book from Mouseion

Actors: Customer, Employee

Purpose: To rent a book from the rent catalog from Mouseion.

Description: A user navigates the web interface, searches for a novel in the romance category, and chooses the novel with the best rating in the category. They proceed to rent the book and create a Mouseion account, where they are directed to the point-of-sale system after account creation. If the payment was a success, they are presented with the date of return for the rental book.

Preconditions: Customer has shopped in-store previously, but is trying the online service for the first time. The customer does not have an account yet.

Postconditions: The customer has successfully made an account and rented their book

Primary Scenario

Actor Action	System Response
1. The customer navigates the web interface and clicks on the category drop-down menu	
	2. The system presents the user with the category options
3. The customer selects the romance category	

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	4. The system presents a webpage of all books categorized by romance, descending by rating by default.
5. The customer selects the highest-rated romance novel.	
	6. The system presents the user with a webpage of the book/novel's description and its availability.
7. The customer selects the 'Rent' option.	
	8. The system presents the user with the intermediary page which lets the user select either login or sign-up before the Point of Sale webpage.
9. The customer selects 'sign-up'.	
	10. The system presents the user with a sign-up form.
Possible alternatives: 11a, 11b	
	12. The system presents the user with the Point of Sale webpage
13. The customer successfully fills in the required fields for the payment.	
	14. The system presents the user with a date of return notice. The book is ready to be picked up at Mouseion.

Alternative Scenarios and Extensions

11a. The customer successfully signs up.	
11a-i. The customer fills in the required fields and successfully signs up.	
	Return to step 12 in the primary scenario.

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11b. The customer unsuccessfully signs up.	
11b-i. The customer fails to fill in the required fields	
	Return to step 10 in the primary scenario.

4.3.3 Use Case 3: Customer browsing books

Actors: Customer.

Purpose: To allow the customer to browse for books without requiring employee interaction.

Description: Customers are able to browse for books using title, category and author.

Preconditions: A customer would like to see if a book is available.

Postconditions: The customer will know the availability status of the book they want.

Primary Scenario

Actor Action	System Response
1. The customer types in the address for the website	
	2. System presents the user with the homepage of the website
See alternatives: 3a, 3b, 3c	
	4. The webpage of the selected book includes a status field. This field is either 'available' or 'unavailable'.
5. The customer takes a look at the 'status' field.	

Alternative Scenarios and Extensions

3a. The customer selects the categories tab	
3a-i. The customer selects categories tab	

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	3a-ii. The system displays all possible categories of books/novels.
3a-iii. The customer roams the list of categories in hopes of finding a desired category. The user selects a category	
	3a-iv. The system displays a list of books/novels descending in order of rating(s).
3a-v. The customer selects a book.	
	3a-vi. The system displays a webpage of the selected book.
Return to Primary Scenario step 4.	

Alternative Scenarios and Extensions

3b. The customer uses the search to search for an exact book title	
3bi. The customer uses the search function and inputs the author's name	
	3b-ii. The system displays a webpage of the selected book.
Return to Primary Scenario step 4.	

Alternative Scenarios and Extensions

3c. The customer uses the searching feature to search for an author	
3c-i. The customer uses the searching feature to search for the author's name.	
	3c-ii. The system displays a list of books/novels the author is included within.
3c- iii. The customer selects one of the books displayed.	

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	3c-iv. The system displays a webpage of the selected book.
Return to Primary Scenario step 4.	

4.3.4 Use Case 4: Customer would like to add a review to a book

Actors: Customer

Purpose: Allow the customer to add a review of the book.

Description: Allows a user who has purchased or rented a book to submit a review.

Preconditions: The customer is a member of Mouseion. The customer has purchased or rented the book.

Postconditions: Customer will have successfully submitted a review on the book.

Primary Scenario

Actor Action	System Response
1. Customer logs into their accounts	
	2. The system verifies customer credentials.
3. Customer searches the book to make a review about.	
	4. System presents search results based on customer's requests.
5. The customer clicks the review button to write a review.	
	6. System verifies that the customer has purchased or rented the book in their history
	Possible Alternatives: See 6a
7. The customer rates the book and writes a review with text	
	8. The system saves the review on the cloud database and displays the review on the website in the review section of the book.

Alternative Scenarios and Extensions

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Actor Action	System Response
6a. The system did not find the book in the customer's history	
6a-i. The customer tries to click the review button to write a review.	
	6a-ii. The system disables the review button to prevent the user from making an unverified review.

4.3.5 Uses Case 5: Customer forgets Login Information

Actors: Customer

Purpose: Recover customer's login information in case the customer forgets their username or password and fails to log in.

Description: Customer forgets the password to their account and needs it to return the rented book.

Preconditions: Customer has an existing account but does not remember their username or password.

Postconditions: The customer's login credentials have been updated successfully.

Primary Scenario

Actor Action	System Response
1. The customer goes to the customer login page and tries to log in with incorrect credentials	
	2. The system rejects the customer's information stating that either username or password is incorrect. It shows the option to recover a username or password.
3. The customer selects the option to recover either username or password.	
Possible Extensions: See 3a, 3b	
4. The customer successfully logs in to the webpage with updated login credentials.	

Alternative Scenarios and Extensions

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3a. The customer selects to reset their username (customer does not remember username)	
3a-i. Customer inputs the email associated with their Mouseion account	
	3a-ii. The system sends the customer an email with steps on how to reset their username
3a-iii. The customer creates a new username	
	Return to Step 4 in the primary scenario.
3b. Customer selects to reset their password (customer does not remember password)	
3b-i. Customer inputs their username to their Mouseion account	
	3b-ii. The system sends the customer an email with steps on how to reset their password
3b-iii. The customer creates a new password	
	Return to Step 4 in the primary scenario.

4.3.6 Use Case 6: Removing Offensive Review of Product

Actors: Customer, Bookstore manager

Purpose: To remove any unwanted or offensive reviews made by a customer on the platform.

Description: A child using the website has presented a review to their parent (a long-time customer of Mouseion) of a book review with offensive language being used in it. The customer then filed a complaint to the manager of Mouseion, asking for the comments to be removed from the website as they are afraid this may influence their child to do similar acts. The manager is notified of the request and removes the review from the book's review page to keep the platform safe.

Preconditions: An offensive review was made and the customer is aware of the review.

Postconditions: The manager addresses the customer's concern, resulting in the customer being happy.

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Primary Scenario

Actor Action	System Response
1. A customer finds an offensive review on the website. The customer files a complaint.	
	2. A bookstore manager receives and reviews the complaint (the offensive review). Based on the evaluation, the review might or might not be removed from the system.
3. Customer is notified of bookstore manager's decision and understands accordingly	

4.3.7 Use Case 7: Manager Receives Shipment

Actors: Management

Purpose: To add newly arrived stock of a shipment to the system

Description: Managers add books and products received in a shipment.

Preconditions: A manager has access to the system, A new shipment of books and products have arrived which are not in the system

Postconditions: All the books and products which have arrived in the shipment have been added to the system.

Primary Scenario

Actor Action	System Response
1. Supply staff selects the in-house order option.	
	2. System presents supply staff with the correct user interface.
3. Supply staff searches for desired items.	
	Possible Alternatives: See 4a, 4b.
	39. The system presents a list of relevant items matching the search criteria.
40. Supply staff selects the appropriate item and enters the needed quantity.	

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	41. The system adds the item to the displayed list of items in the order.
42. Supply staff enters the desired destination	

Actor Action	System Response
location and confirms the order.	
	43. System logs the list, destination, time, supply staff username, and order number as pending completion.
Possible Alternative: See 9a.	
44. Supply staff end session.	

Alternative Scenarios and Extensions

14a. The supply staff has delivered the order and wants to confirm it.	
14a-i. Supply staff selects the order number from the list of pending orders and confirms its completion.	
	14a-ii. The system updates the item's information in the database.
	Return to Step 9 in the primary scenario.

4.3.8 Use Case 8: Customer requests product

Actors: Customer

Purpose: To take a customer request for the specified product that is out of stock or not registered in the inventory.

Description: Customer submits a "request" form to management via the website for a specific book/product.

Preconditions: Customer has all the required information to fill out the request form.

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Postconditions: The requested products are added to the inventory of the system after evaluation.

Primary Scenario

Actor Action	System Response
1. The customer cannot find the item or the item is out of stock. The customer finds the request form from the website.	
	2. The system allows the customer to access the online form.
3. The customer fills out the form with the required information about the product. The form is submitted.	
	4. The system saves the request form and notifies the manager for a review.
	5. The manager reviews the request form.
	Possible Alternatives: See 5a, 5b.

Alternative Scenarios and Extensions

5a. The manager accepts the request from the completed form	
	5a-i. The manager accepts the request and submits an order for the requested product which is added to the website's catalog
5b. The manager denies the request from the completed form	
	5b-i. The manager declines the request

5. Appendix A: Change Log

Section	Change	Source/Reason
4. All parts	More use cases were added	Source: Negotiations meeting. Reason: Allow for specifying the use cases of the system

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3.1.1.4.1	Logging feature for tracking customer's activity history was discussed.	Source: Negotiations meeting. Reason: The client requested an additional feature for logging customer's history within the system.
3.1.1.4	Added info regarding functionality for both book rental and account management	Source: Negotiations meeting. Reason: Requested feature from the client necessary for proper functionality
3.1.4.2	Overdue Book Management: a security issue was raised	Source: Negotiations meeting. Reason: Solve a security issue regarding the IT personnel's access to the database
3.1.1.1	Basic required functionalities of the system	Source: Negotiations meeting. Reason: The client requested for this set of functions to be the main focus of the system
3.1.2.2	Customer reviews and ratings for books	Source: Negotiations meeting Reason: Client requested the ability to review and rate books in the database
3.1.1.2 3.1.1.3	Customer accounts and Employee accounts are saved in the system separately.	Source: Negotiations meeting. Reason: Client requested separate login interfaces for customers and employees
3.1.7	Manager Book request system: allows users to request out-of-stock books and have an inventory manager review requests	Source: Negotiations meeting Reason: Important feature requested by Client for case when required books are not in stock
3.3.1 3.8.2	Database hosting location as well as acceptable downtime	Source: Negotiations meeting. Reason: To minimize downtime and have a basic overview of operating costs
3.4.1	Responsive UX	Source: Negotiations meeting. Reason: Requested by client
3.4.2	Performance: Load balancing and peak traffic hours	Source: Negotiations meeting. Reason: Requirement for worst-case scenario of database traffic.

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3.9	UI, Hardware Requirements, and Software Interfaces	Source: Negotiations meeting. Reason: Important information regarding how the database will be accessed for the client.