



**Faculty of Engineering, Architecture and Science
Department of Electrical and Computer Engineering
Laboratory Report Cover Page**

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Project description

Books serve an important role in society as portals to knowledge and culture. They provide learning opportunities, encourage literacy and education, and assist in the forming of cutting edge ideas and views that are essential to a creative and inventive society through the tools and services they provide.

An E-Bookstore would enable individuals across the globe to be able to view and purchase a much wider variety of books of their choosing at ease, in the comfort of their home, connecting more people to their favourite books, that otherwise may have not been able to do so. Hence, the importance of an online bookstore in today's society is quite understated.

Our objective is to construct an online e-bookstore system that offers various books for purchasing purposes. This system supports distinct services contingent upon the current user of the system. Our e-bookstore system will contain 4 primary actors: Members, Guests, Sellers & the Administrator. Members will be the main customers of the service who will be able to purchase the books. Guests will be able to view catalogues & services. Sellers will be able to upload the books they would like to sell. The Administrators will serve as the brokerage, enabling Members and Buyers to interact and allow fluent transactions to occur amongst one another.

The Members will have functionalities such as searching & selecting books for purchase and said searches can be made through a variety of methods: Title, ISBN, Price Ratings, Author, or Category. Moreover, Members (Guests at the moment) must register within our e-bookstore system prior to purchasing books. The registration process will entail said Member's firstname & lastname, followed by phone number, email address, username and password. In addition, users who sign up to become Members within the e-bookstore system will receive a one time \$50 credit to their accounts and will be applied towards any purchases they decide upon as a reward for registering with the company.

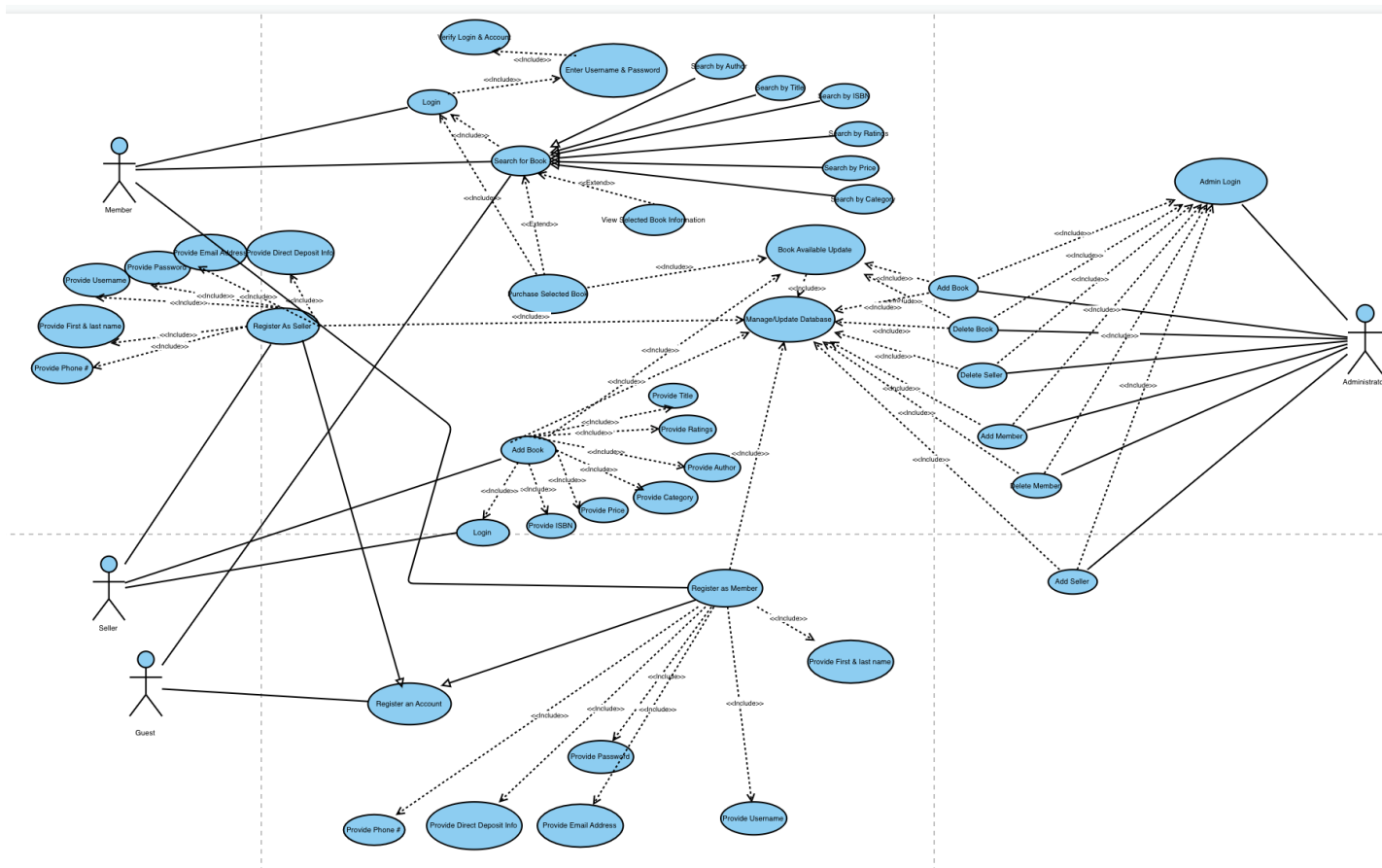
The Administrators are capable of managing books (adding/deleting/modifying/updating) in tandem to the managing (adding/deleting/modifying/updating) of Members within our e-bookstore system. Additionally, Administrators can record within and maintain the database which contains numerous records of Books, Members & Sellers, as well as various details about them.

The Guests shall be able to view and browse all of the books posted by Sellers that are currently being offered by the e-book store. If the Guests desire to purchase any of the

available book(s) they must register as a Member (firstname & lastname, followed by phone number, email address, username and password) and then proceed to finalise the purchase.

The Sellers firstly, must register on the e-bookstore. This can be done by entering their firstname & lastname, followed by phone number, email address, username and password, and their direct deposit. The direct deposit will be utilised to execute the transferall of funds electronically into the stated bank account and will showcase the amount of funds collected from each sale. Sellers are also able to request the publishing/addition of books within our e-bookstore system per specific parameters (Title, ISBN, price, ratings, author, and category). If a purchase is successful, the appropriate funds are deposited into the Sellers listed account on the system.

Use-Case



Use-Case Descriptions:

Guest:

Search for Books: Guests can search and view the available books on the bookstore website. If they wish to view various details about the book, they have the option to do so. If they wish to purchase a book they have selected, they must login (<<Include>> Use Case) into the website by entering username & Password (<<Include>>Use Case), to which the account will be verified (<<include>> Verify Login & Account) to ensure the login details are correct and the account exists.

Register an Account: Guests are also able to register an account. They have the option to register as a Seller, or as a Member. Upon either selection, they must provide valid details, including First & Last Name, a Username & Password, email address, phone number, direct deposit information, & phone number. All these details have a use case with an <<include>> relationship from the register as Member/Seller Use Case. Successful creation, the account is added onto the Database (Manage/Update Database Use Case).

Member:

Registering as a Member: Users will be prompted to provide their personal information in conjunction with a username and password. Specifically, the system shall ask you to provide a First & Last Name, Phone Number, Email Address, Direct Deposit Information, Username, and Password. The system will then confirm the validity of the phone number (must be at least 10 digits long), email address (must be a valid email address), direct deposit information (stated direct deposit must exist), username (between 8 to 16 characters, combination of letters and numbers, and no special characters), and password (between 8 to 16 characters, have at least 1 uppercase, lowercase, and number, and must not have 3 or more consecutive characters from username). Successful creation, the account is added onto the Database (Manage/Update Database Use Case).

Login: To login a valid username and password must be entered which is associated with an existing account. The system will verify validify based upon the credentials (username & password) entered and grant the Member all functionalities a Member should have.

Search for Book(s): A Member must be logged in successfully to be able to search within our system for desired book(s). Members are allowed to search desired books

published by the Sellers and updated within the database via the following parameters: Author, Title, ISBN, Ratings, Price, or Category. If an ISBN is provided the system will confirm that a valid ISBN has been provided and if Author or Title were provided the system will confirm that the Author or Title of the book exists.

Purchase Selected Book(s): A Member must be logged in successfully to be able to purchase a selected book(s) within our system. When attempting to purchase the book(s) the system will confirm if the book is available through the database and if confirmed as available, the transaction will take place. On successful execution of the transaction, the database will be updated regarding the selling of the book(s).

Seller:

Registering as a Seller: Users will be prompted to provide their personal information in conjunction with a username and password. Specifically, the system shall ask you to provide a first & last name, phone number, email address, direct deposit information, username, and password. The system will then confirm the validity of the phone number (must be at least 10 digits long), email address (must be a valid email address), direct deposit information (stated direct deposit must exist), username (between 8 to 16 characters, combination of letters and numbers, and no special characters), and password (between 8 to 16 characters, have at least 1 uppercase, lowercase, and number, and must not have 3 or more consecutive characters from username). Successful creation, the account is added onto the Database (Manage/Update Database Use Case).

Add Book: Sellers can add books they wish to publish. Before so, they must be logged into the website. They must provide various information about the book itself before publishing, including the Title of the book, Author, Category, Price, ISBN, as well as a rating for the book. Once the book has been successfully published, the book will be available on the website, while also being added to the database.

Login: To login a valid username and password must be entered which is associated with an existing account. The system will verify validify based upon the credentials (username & password) entered, and an entry will be granted, where Seller functionalities will be accessible.

Administrators:

Add Book: An administrator must be successfully logged in to the system via valid administrator credentials to be able to add book(s). Once a valid admin login was made and confirmed, the admin adds book(s) and as soon as this action is performed, our

database will be updated with the addition of said book(s). Furthermore, the book(s) will be made available for purchase if a member searches for said book(s).

Delete Book: An administrator must be successfully logged in to the system via valid administrator credentials to be able to delete book(s). Once a valid admin login was made and confirmed, the admin deletes the book(s) and as soon as this action is performed, our database will be updated with the deletion of said book(s). Furthermore, the book(s) will no longer be available for purchase if a member searches for said book(s).

Add Seller: An administrator must be successfully logged in to the system via valid administrator credentials to be able to add seller(s). Once a valid admin login was made and confirmed, the admin adds the seller(s) and as soon as this action is performed, our database will be updated with the addition of said seller(s).

Delete Seller: An administrator must be successfully logged in to the system via valid administrator credentials to be able to delete seller(s). Once a valid admin login was made and confirmed, the admin has the option to delete a seller. This action will cause the database to be updated.

Add Member: An administrator must be successfully logged in to the system via valid administrator credentials to be able to add member(s). Once a valid admin login was made and confirmed, the admin adds the member(s) and as soon as this action is performed, our database will be updated with the addition of said member(s).

Delete Member: An administrator must be successfully logged in to the system via valid administrator credentials to be able to delete seller(s). Once a valid admin login was made and confirmed, the admin can delete a member from the database.