Department of Electrical, Computer, & Biomedical Engineering
Faculty of Engineering
& Architectural Science

Course Number	COE528
Course Title	Object Oriented Analysis Design
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Instructor	Olivia Das
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Lab/Tutorial Report No.	N/A

Report Title	Final Project Report

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Group No.	N/A
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Use-case name:

LoggingIn

Participating actors:

- Customer
- Owner

Entry Conditions:

Customer: The username and password entered by the customer must match the registered user and password in the system for that specific customer.

Owner: The username and password must match the login entry for “admin”.

Flow of Events:

Customer:

- Login screen is displayed
- Customer enters their registered login information

Owner:

- Login screen is displayed
- Owner enters their administrative login information

Exit Conditions:

Customer: For the customer to exit the login screen and access their account, their credentials must match the username and password information in the system. The use-case ends when the customer logs out of the application.

Owner: For an owner to exit the login screen and access their account, their credentials must match the administrator information in the system. The use-case ends when the owner logs out of the application.

Exceptions:

Customer: If the customer has entered the incorrect information or the information does not exist, the customer will be denied access and an error message will be displayed.

Owner: If the owner entered the incorrect username and password to match “admin”, the owner is denied entry following an error message to be displayed.

Special Requirements:

General: It is assumed that only one copy of each book is available in the system. Once a book is purchased by the customer, it is then removed from the database.

Customer: When the customer logs out, the customs and books databases are saved in their allocated text files.

Describe the rationale behind using the state design pattern:

For the purpose of this bookstore application, the state design pattern was used. The state design pattern allows the behavior of a class and/or methods to depend on a state. The pattern would not be in use when the object can be in more than one state. The requirements of the project led to the state design pattern being the most efficient and one that was most logical. The state pattern revolves around the login screen state. It then splits into 2 different states. One of which being the start screen for the customer and admin. From this point the states were designed around the needs of the customer and the admin. This was most effective as the admin state needed the most sub-states.The design allowed us to focus on the extensive states that are required for the admin.