CSE 111 Fall 2024: Project Checkpoint 1

“Bookstore Management”

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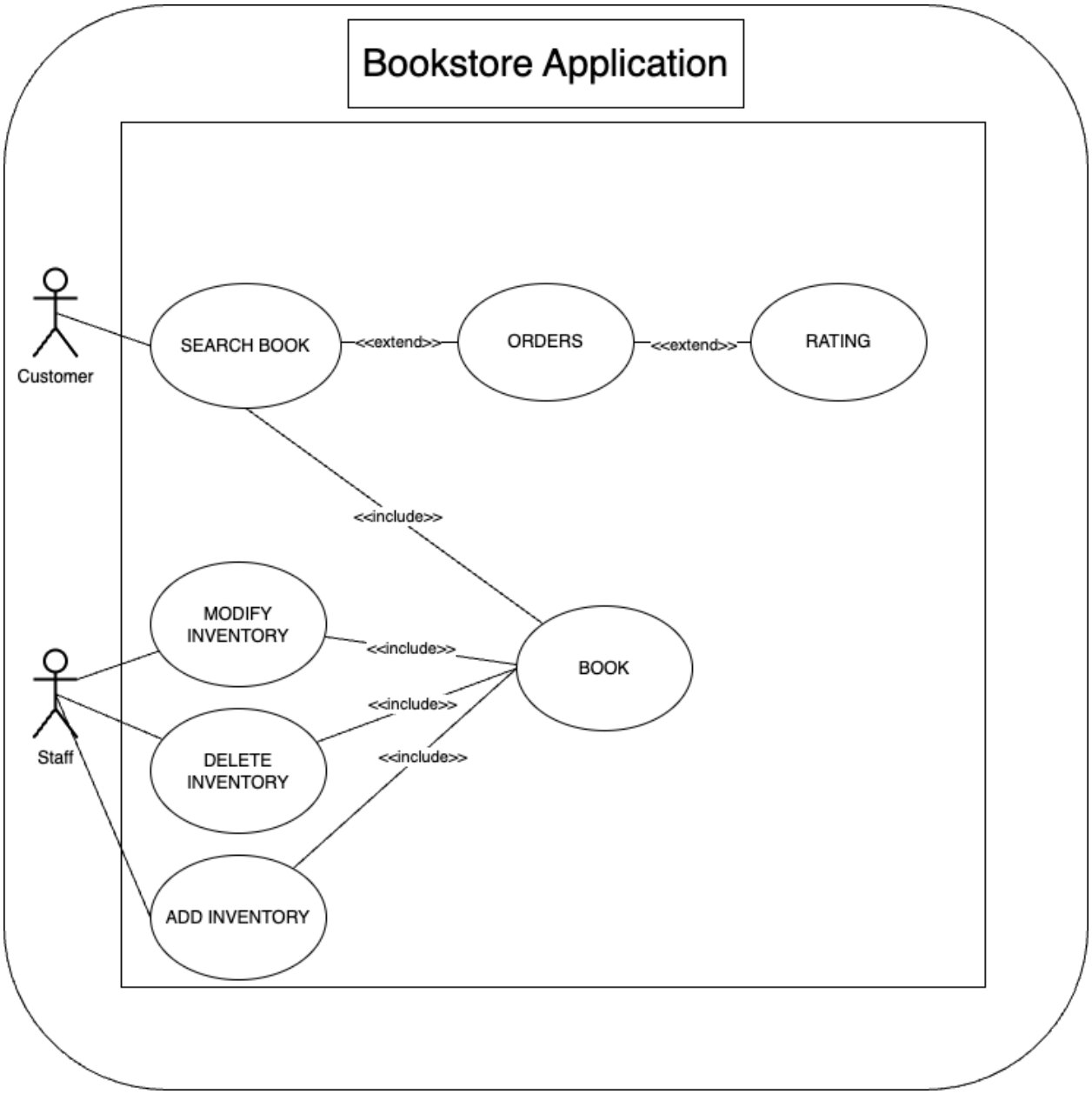
Synopsis

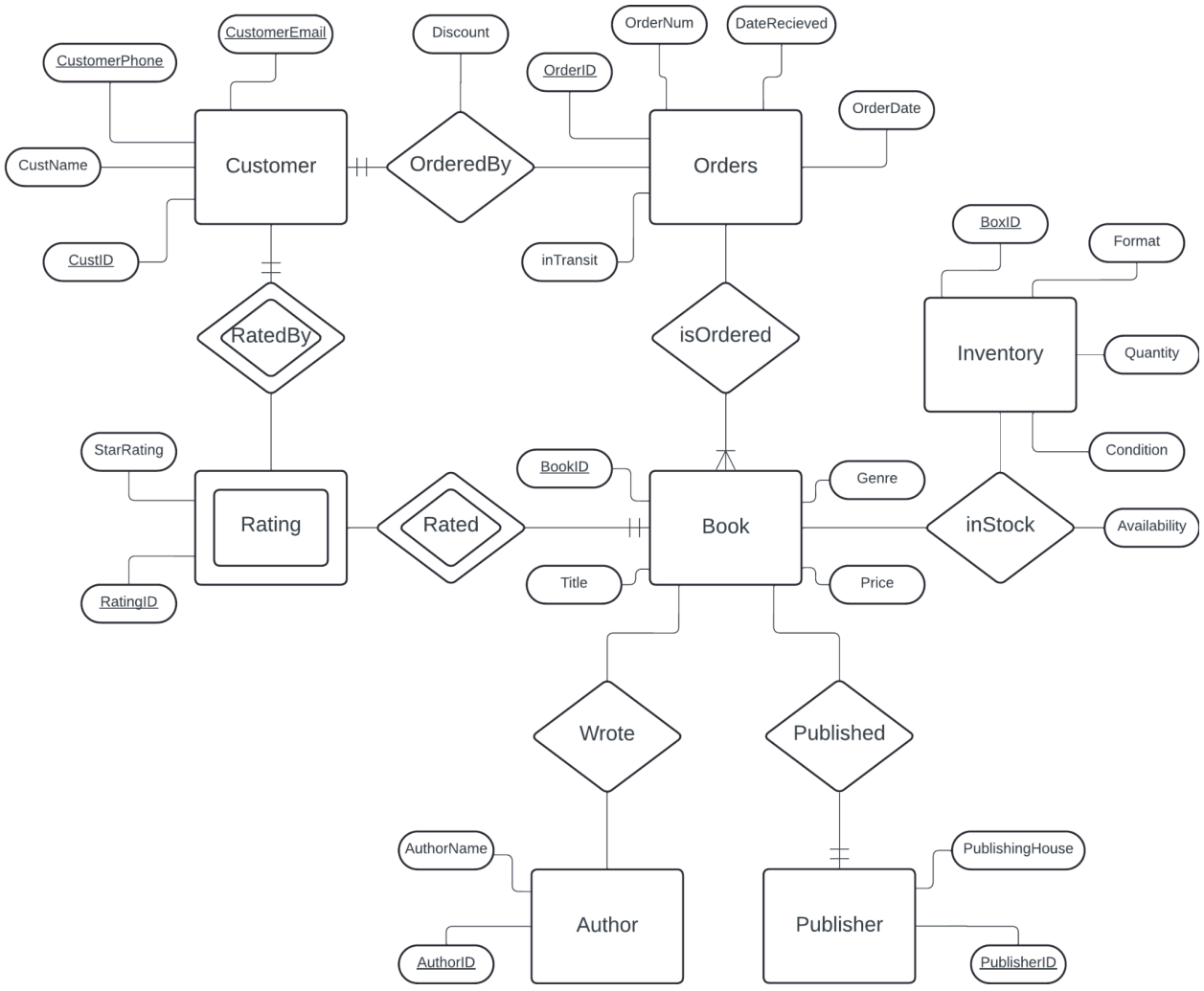
The project will create a database and interface for a bookstore. The intended users for this application will be for workers in bookstores who can easily access their bookstore’s data as well as bookstore customers who want to purchase books they are interested in. For employees, we plan on letting them be able to add new books, search for specific books, search specific authors, search specific genres, delete specific books, update book prices, send restock requests, and check order reports. As for customers, we plan on letting them search for a specific book, search for a specific author, search for a specific genre, “purchase” books and allow them to send book ratings.

UML Case Diagram

The main use cases for this UML is for staff and customers. The paths of the use case show what the customer can do on this online website such as searching a book, ordering, and rating the purchased item(s). For staff they can add, modify, or delete inventory of the books.



E/R Diagram



Relational Schema

Entities:

1. Book(<u>BookID</u>, Title, <u>AuthorID</u>, <u>PublisherID</u>, Genre, Price)
2. Author(<u>AuthorID</u>, AuthorName)
3. Publisher(<u>PublisherID</u>, PublishingHouse)
4. Rating(<u>RatingID</u>, <u>BookID</u>, StarRating, <u>CustomerID</u>)
5. Customer(<u>CustomerID</u>, CustomerName, <u>CustomerPhone</u>, <u>CustomerEmail</u>)
6. Inventory(<u>BoxID</u>, <u>BookID</u>, Quantity, Condition, Format)
7. Orders(<u>OrderID</u>, OrderNum, CustomerID, BookID, OrderDate, RecieveDate, inTransit)

Relationships:

1. Wrote(AuthorID, BookID)
2. Published(BookID, PublisherID)
3. inStock(BookID, BoxID, Availability)
4. Rated(BookID, RatingID)
5. RatedBy(CustomerID, RatingID)
6. isOrdered(OrderID, BookID)
7. OrderedBy(OrderID, CustomerID, Discount)

GitHub Access Link:

https://github.com/UrielMJ7/CSE-111-Database-Project