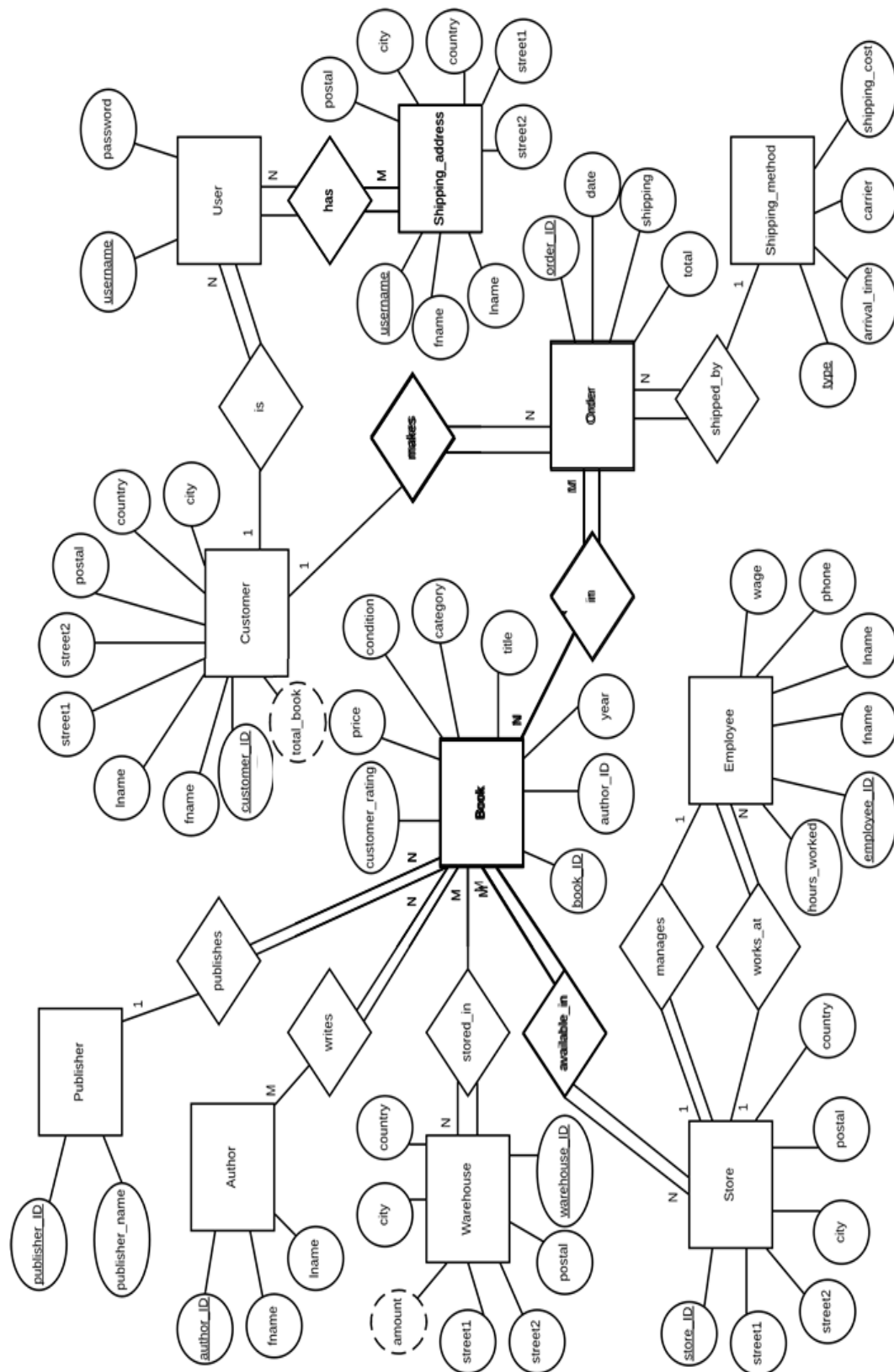


Section 1 – Database Description
a) ER Diagram



b) Relational Schema

publisher(publisher_ID, publisher_name)

author(author_ID, fname, lname)

customer(customer_ID, Fname, Lname, street1, street2, city, country, postal)

user(username, password, customer_ID)

Foreign key **customer_ID** references Customer

warehouse(warehouse_ID, street1, street2, city, country, postal)

Foreign key **book_ID** references Book

book(book_ID, author_ID, publisher_ID, ISBN, customer_rating, price, condition, title)

Foreign key **author_ID** references Author

Foreign key **publisher_ID** references Publisher

store(store_ID, street1, street2, city, country, postal, manager_ID)

Foreign key **manager_ID** references Employee

employee(employee_ID, store_ID, hours_worked, Fname, Lname, email, phone, wage)

Foreign key **store_ID** references Store

order(order_ID, customer_ID, date, shipping, total)

Foreign key **customer_ID** references Customer

shipping_address(username, fname, lname, street1, street2, city, country, postal)

Foreign key **username** references User

shipping_method(type, arrival_time, carrier, shipping_cost)

writes(publisher_ID, book_ID)

Foreign key **publisher_ID** references Publisher

Foreign key **book_ID** references Book

stored_in(warehouse_ID, book_ID)

Foreign key **warehouse_ID** references Warehouse

Foreign key **book_ID** references Book

available_in(store_ID, book_ID)

Foreign key **store_ID** references Store

Foreign key **book_ID** references Book

in(book_ID, order_ID)

Foreign key **book_ID** references Book

Foreign key **order_ID** references Order

has(user_ID, username)

Foreign key **user_ID** references User

Foreign key **username** references Shipping_address