COMP 3005: Database Management Systems **(Due: Dec. 10th, 2021 (11:59 PM))**

COMP3005 Final Project Report

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Introduction

This is the project report for the COMP3005A Final Project for the Fall 2021 term.
The group for this project consists of the following members...

Group Members

- Aaron Buitenwerf ()
- Hadi Cheaito ()
- Nabeel Warsalee (101103167)

All project files and source code can be found at the following Github repository...

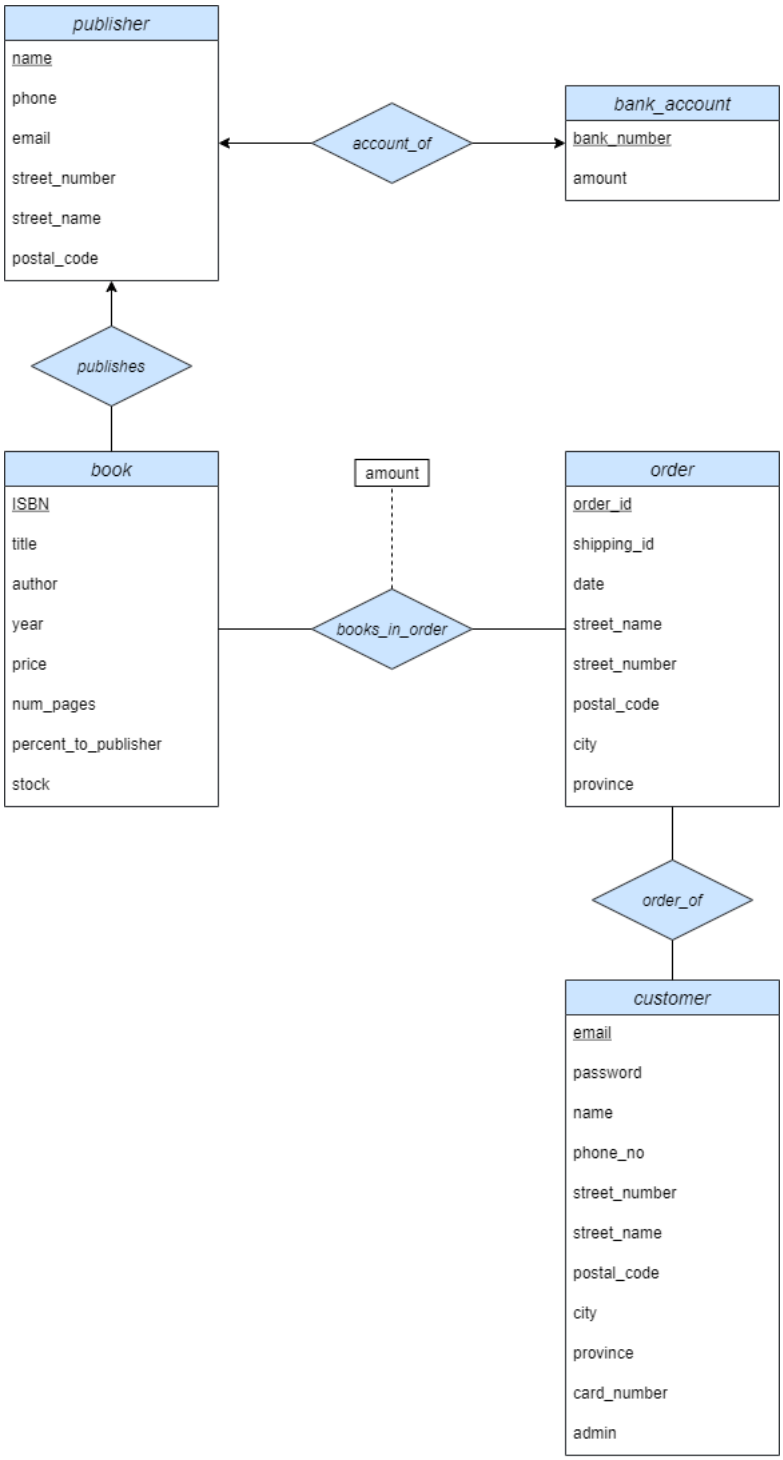
1 Conceptual Design

Insert preamble about design.

Assumptions Made
In this section we list all the assumptions that were made for certain aspects of the problem statement. These assumptions reflect how we designed and organized our database for this project.

- A book can only have one publisher
- All books with same title have the same ISBN
- Assume an order can only have one of the same book (i.e., user cannot buy two copies of the same book)
- Each publisher has only one bank account
- There is only one report made per publisher

ER Diagram
The following is the Entity-Relationship Diagram created to model the entities and relationships from the provided problem statement using the assumptions we have outlined above.



2 Reduction to Relation Schemas

Here are the relation schemas gained from reducing our ER diagram into relations... (Note: Primary keys are underlined)

book(ISBN, publisher_name, stock, title, author, year, price, num_pages, percent_to_publisher)
order(order_id, email, shipping_id, date, street_number, street_name, postal_code, city, province)
books_in_order(order_id, ISBN, amount)
customer(email, password, name, phone, street_number, street_name, postal_code, city, province, card_number)
publisher(name, phone, bank_number, email, street_number, street_name, postal_code)

bank_account(bank_number, amount)

3 Normalization of Relation Schemas

4 Database Schema Diagram

The following is the Schema Diagram created to model schemas gained from our ER diagram and after normalization.