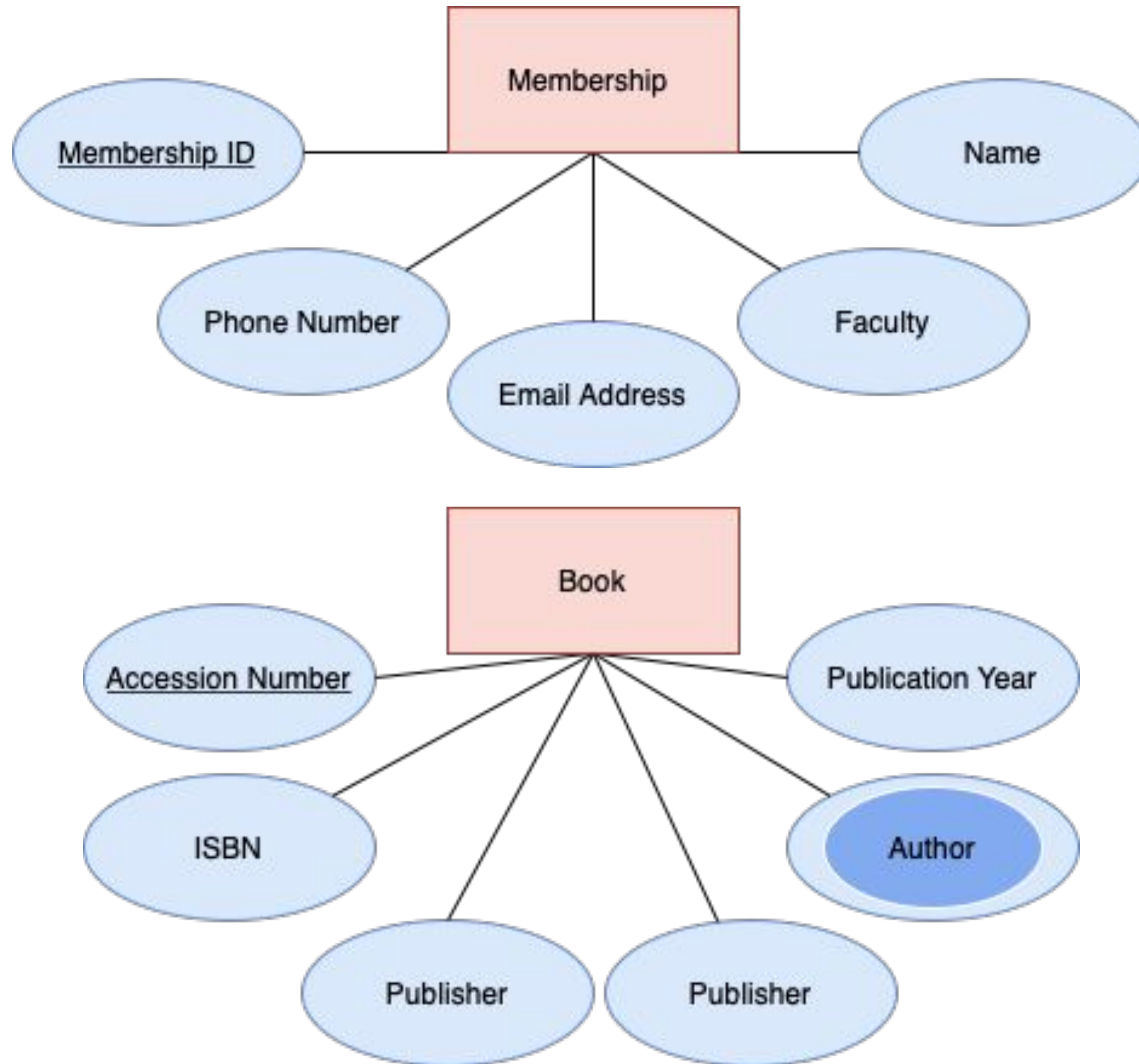


BT2102  
Assignment 1

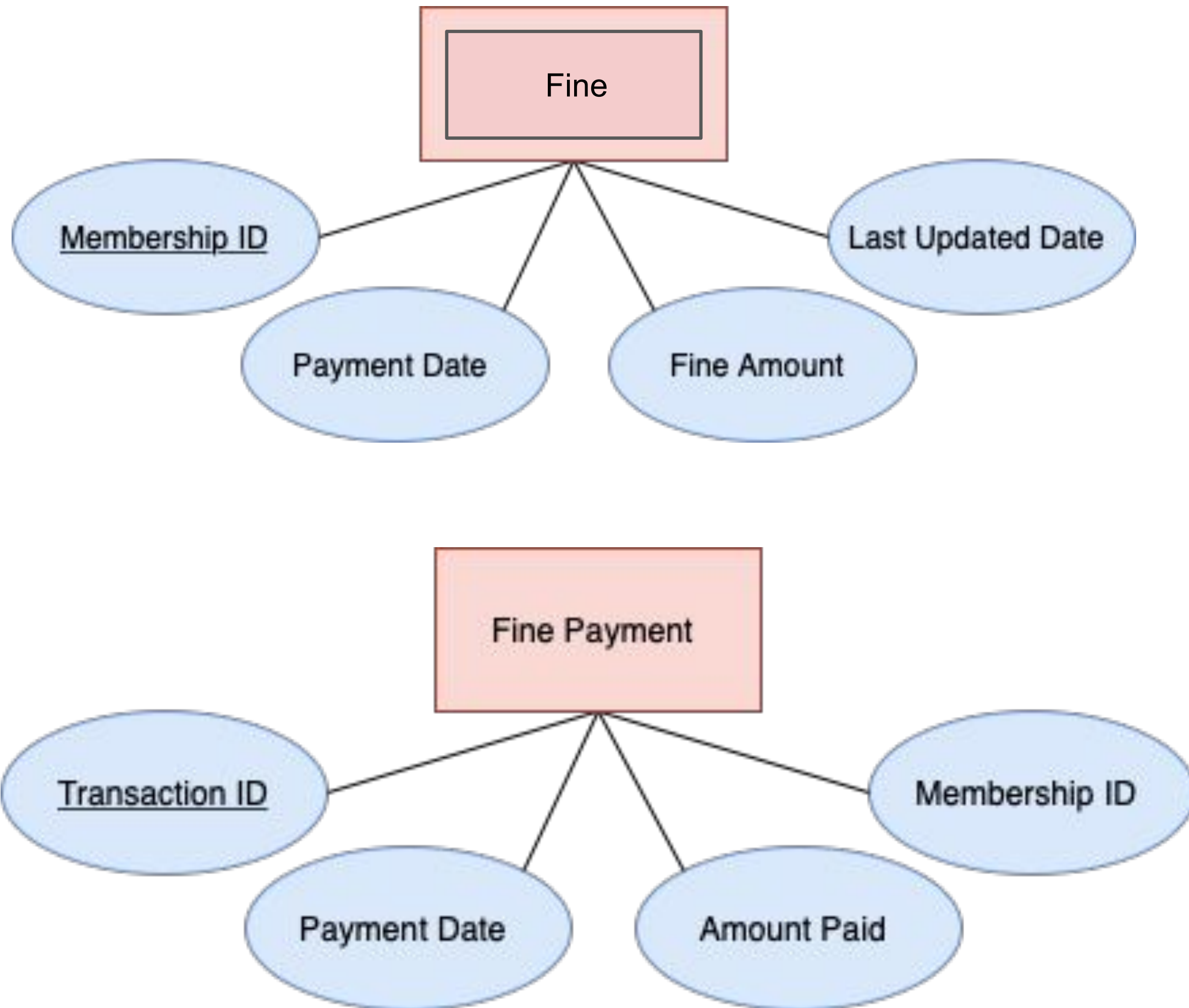
Group 21

Brian Liew  
Joel Leng  
Seah Ding Xuan  
Varsha Ramkumar

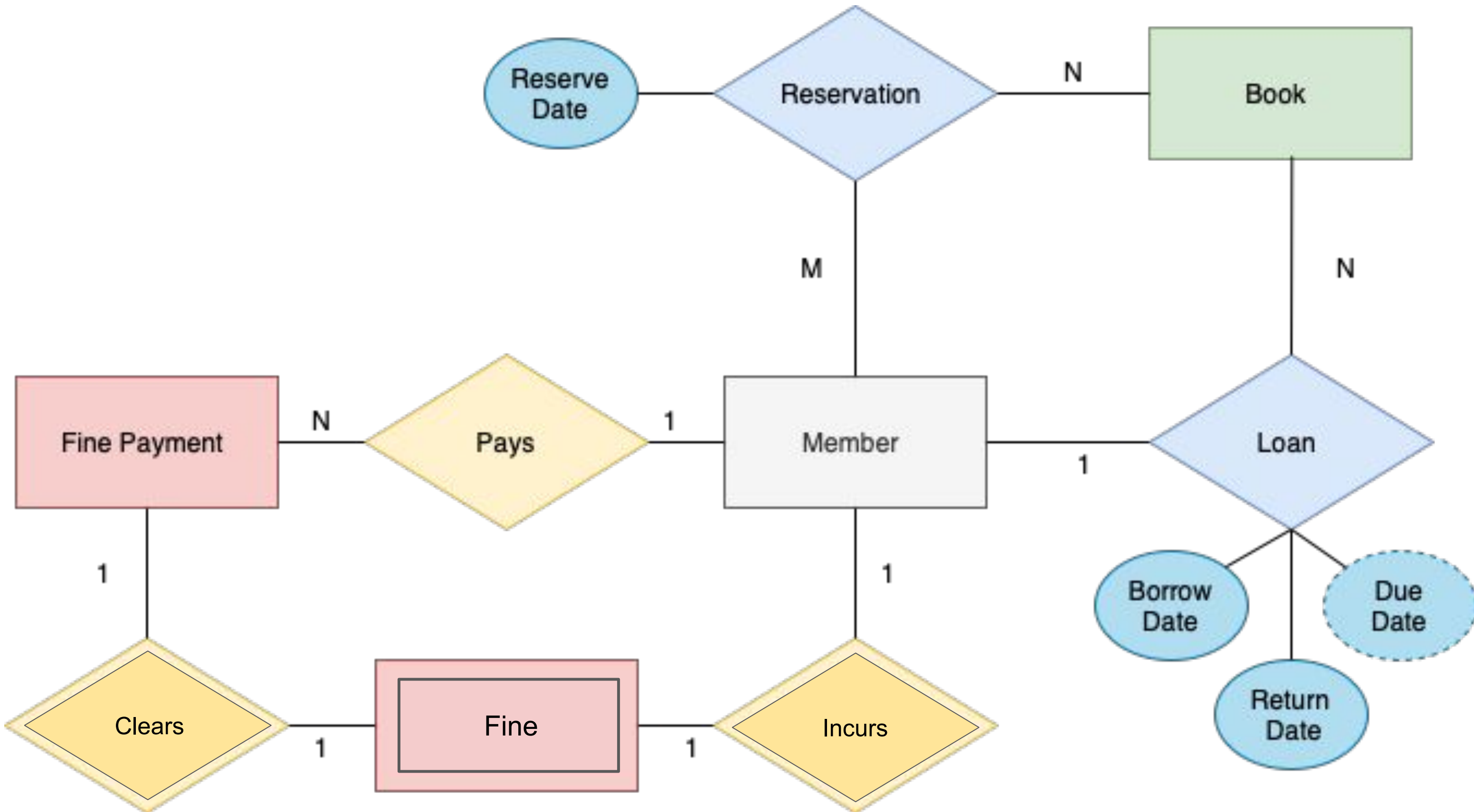
# The Final Entities and Attributes: Membership, Book



# The Final Entities and Attributes: Fine, Fine Payment



# The Final Conceptual Data Model



# The Final Logical Schema

**membership** (membership\_id, phone\_number, email address, faculty, name)

**book** (accession\_number, title, isbn, publisher, pub\_year, borrow\_date, due\_date, return\_date, membership\_id borrowed)

**fine** (membership id fined, last\_updated\_date, amount\_fined, payment\_date, transaction\_id)

**fine payment** (transaction\_id, amount\_paid, pay\_date, membership id paying)

**reservation** (accession\_number, membership id, reserved\_date)

**author** (accession\_number, author\_name)

# The Final Logical Data Model

**membership** (membership\_id, phone\_number, email address, faculty, name)

Primary Key: membership\_id

**book** (accession\_number, title, isbn, publisher, pub\_year, borrow\_date, due\_date, return\_date, membership\_id\_borrowed)

Primary Key: accession\_number

Foreign Key: membership\_id\_borrowed references membership(membership\_id)

**fine** (membership id\_fined, last\_updated\_date, amount\_fined, payment\_date, transaction\_id)

Primary key: membership\_id\_fined

Foreign Key: membership\_id\_fined references membership(membership\_id)

Foreign key: transaction\_id references fine payment(transaction\_id)

**fine payment** (transaction\_id, amount\_paid, pay\_date, membership id\_paying)

Primary key: transaction\_id

Foreign key: membership\_id\_paying references membership(membership\_id)

**reservation** (accession\_number, membership id, reserved\_date)

**author** (accession\_number, author\_name)

Primary key: accession\_number, author\_name

Foreign Key: accession\_number references book(accession\_number)