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# * Bank Management

1. Entity (Customer)

- Attributes
  - customer_id
  - name
  - address
  - phone
  - email
  - dob
- Behaviors :
  - openAccount ()
  - closeAccount ()
  - updateDetails ()
  - viewBalance ()

2. Account :

- Attributes
  - account_no
  - account_type (Saving / current)
  - balance
  - opening date
  - customer_id
- Behaviors :
  - deposite ()
  - withdraw ()
  - transfer ()
  - checkBalance ()

3. Transaction

- Attributes
  - transaction_id
  - date
  - amount
  - transaction_type (credit/debit)
  - account_no

- Behaviors :
  - recordTransaction()
  - viewTransaction()

4. Loan

- Attributes
  - loan_id
  - loan_type
  - amount
  - interest_rate
  - duration
  - customer_id.

5. Behaviors
  - applyLoan()
  - approveLoan()
  - calculate EMI()

5. Employee

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- Attributes
  - employee_id
  - name
  - salary
  - phone

- Behaviors :
  - verify customer ()
  - approveloan ()
  - manage account ()

* Relationship :

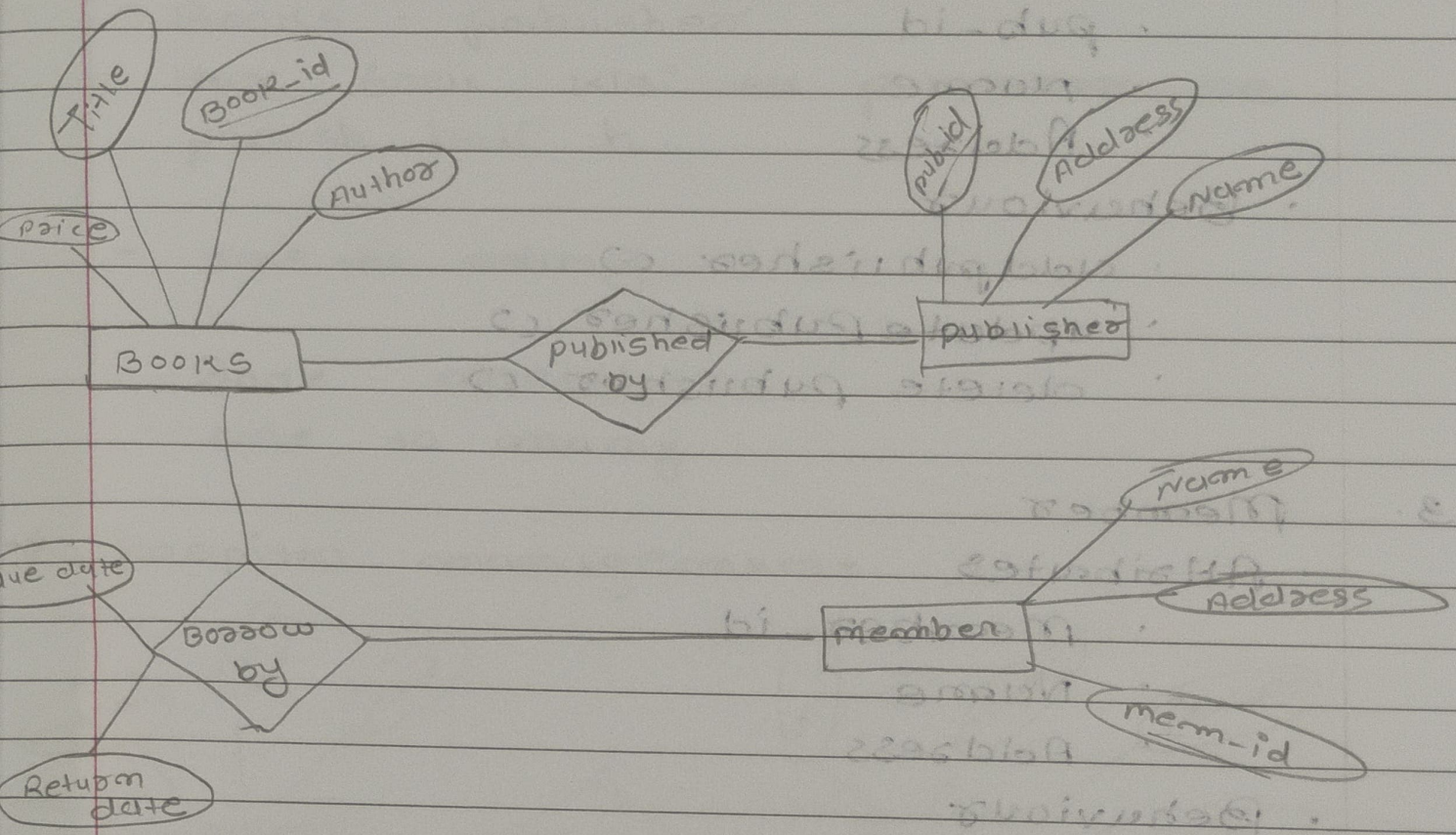
1. Customer - Account
   - One customer can have many accounts
   - one to many.

2. Customer - loan
   - one customer can take multiple loans
   - one to many

3. Account - Transaction
   - one account has many transaction.
   - One to many.

4. Employee - Account
   - One Employee manages many account.
   - one employee to many.

# * Library Management




1. BOOKS
   - Attributes
     - Book_id (— primary key, unique hoti h)
     - Title
     - Author
     - price
     - Available
   - Behaviour
     - addBook ()
     - deleteBook ()
     - viewBookdetails ()
     - CheckAvailibelity ()

2. publisher
- Attributes
  - pub_id
  - Name
  - Address
- Behaviour
  - addpublisher ()
  - updatePubiisher ()
  - delete publisher ()

3. Member
- Attributes
  - Member_id
  - Name
  - Address
- Behaviour
  - register member ()
  - update member ()
  - viewmemberdetail ()

4. Borrowed by
- Attributes
  - issue
  - due_date
  - Return_date
- Behaviours :
  - issueBook ()
  - returnBook ()
  - Calculate fine ()
  - checkOverdue()

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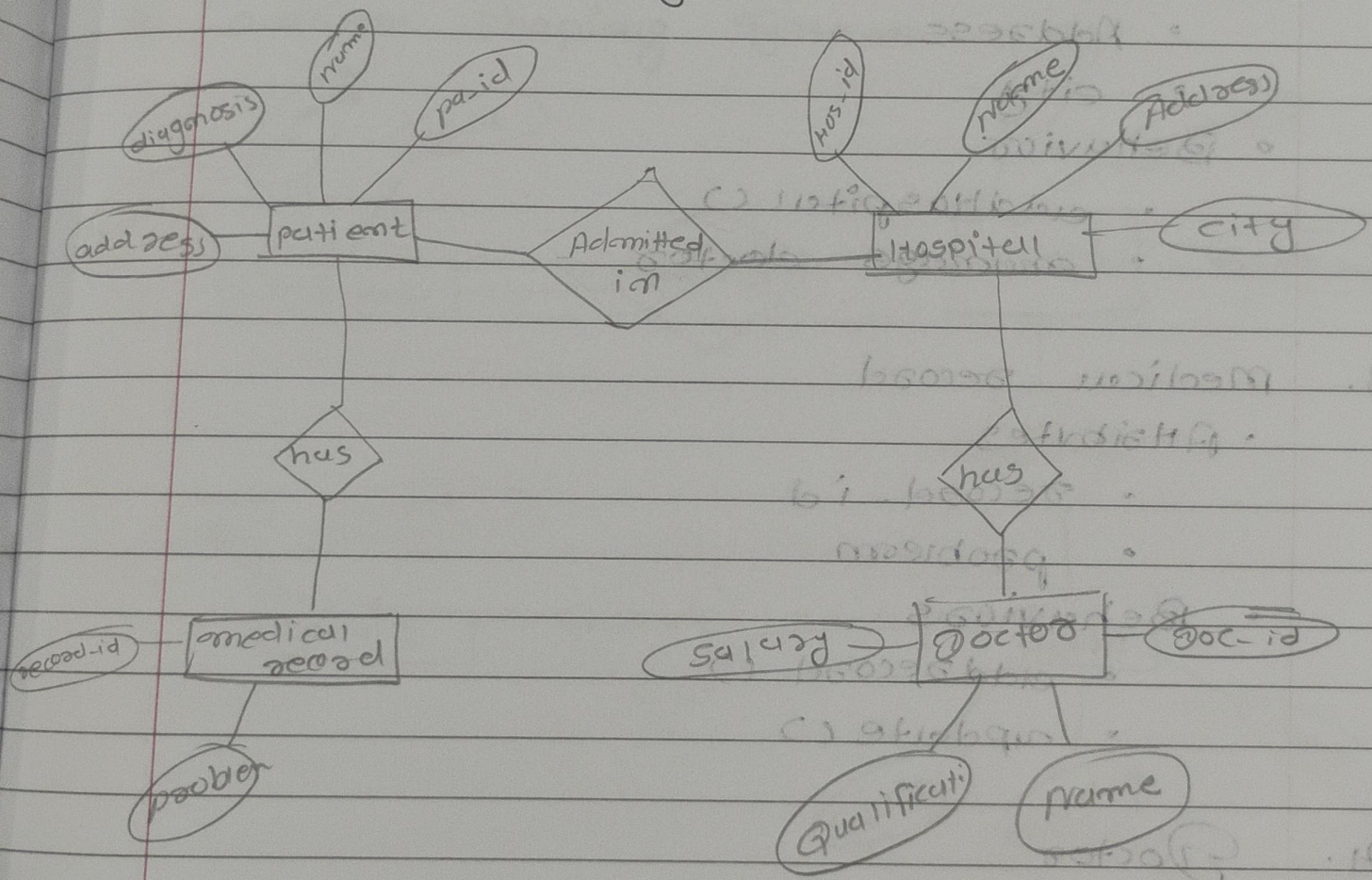
## Relationships

- Books - publisher
  - Har book kisi ek publisher se publish hoti h.
  - one to many
- Book - member
  - one to many.

## Hospital management.



1. patient
   - Attributes :
     - Name
     - diagnosis
     - Address
   - Behaviour
     - registerpatient ()
     - Update details

2. Hospital
   - Attributes :
     - Name
     - Address
     - city
   - Behavior
     - addHospital ()
     - manage doctor

3. Medical record
   - Attributes
     - record_id
     - problem
   - Behaviors
     - addrecord ()
     - update ()

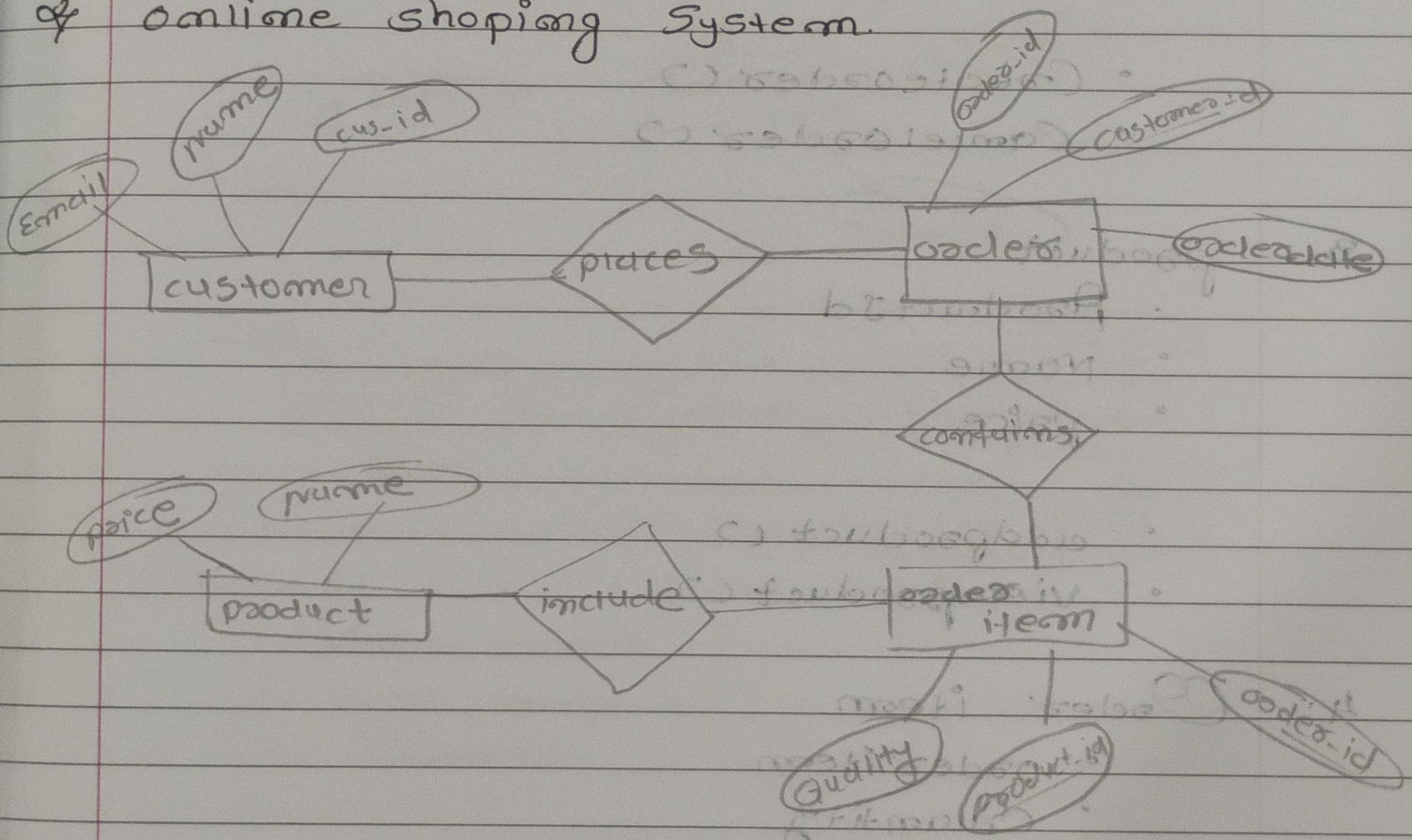
4. Doctor
   Attributes
     - Name
     - Salary
     - Qualification

- Behaviours
  - addDoctor ()
  - updateDoctor ()

## Relationship

1. patient - Admitted in - Hospital
   - many to one
2. patient - has - Medical Record.
   - one to many.

## online shoping System.



1. Customer
   - customer_id
   - Name
   - Email

   - registerCustomer()
   - placeOrder()
   - viewOrder()

2. Order
   - order_id
   - orderdate

   - CreateOrder()
   - CancelOrder()

3. product
   - ProductId
   - Name
   - price

   - addproduct()
   - viewproduct()

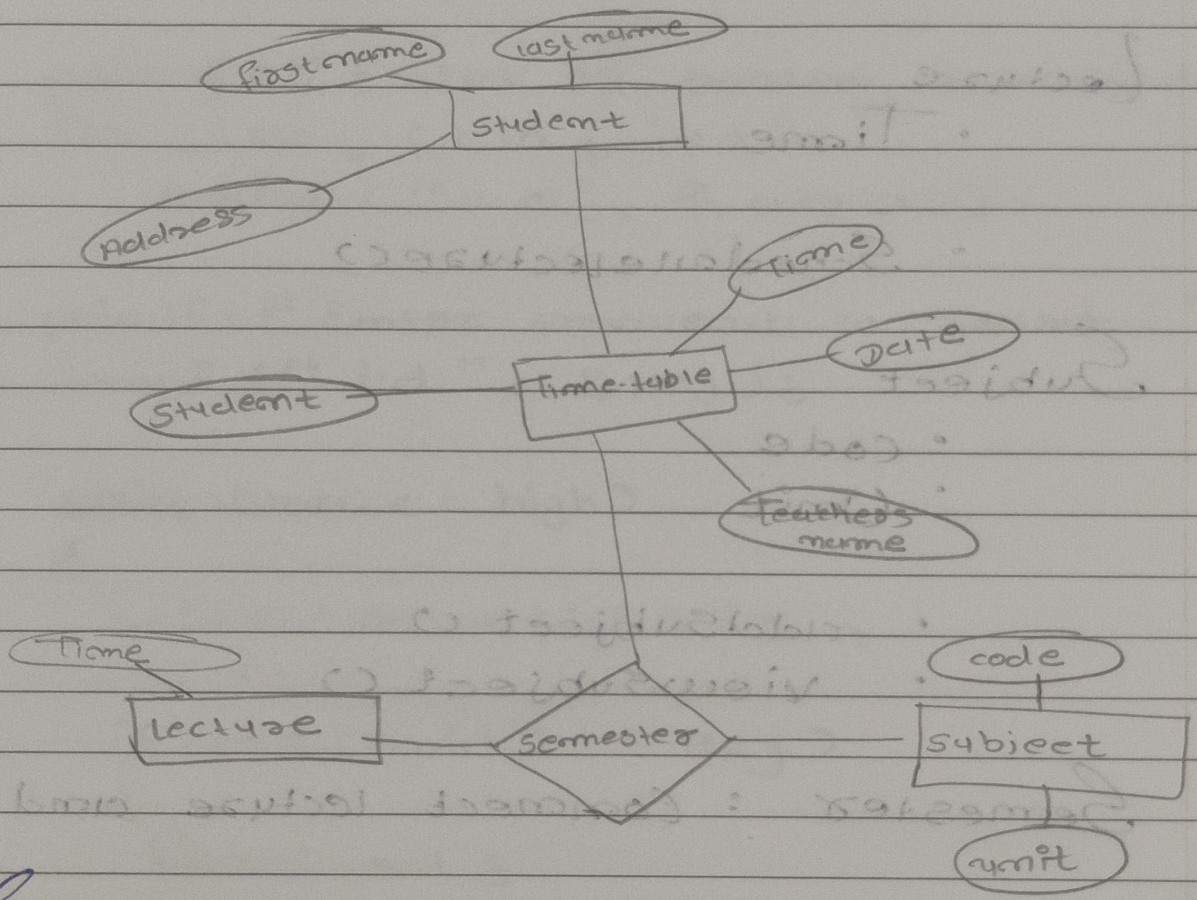
4. Order item
   - orderitem
   - Quantity
   - OrderId

   - addItem()
   - updateQuantity()

1. Customer - Order
   one to many

2. Order - order item
   one to many

* collage management




1. Student
   - first_name
   - last name
   - Address

   - registerStudent ();
   - viewTimetable ()

2. Timetable
   - Time
   - Date
   - Teacher-name
   - Student
   - CreateTimeTable

3. Lecture
   - Time
   - ScheduleLecture()

4. Subject
   - code
   - Unit
   - addSubject()
   - viewSubject()

5. Semester : Connect lecture and Subject
   - assignSubject()
   - manage Semester()

6. Relationship.

1 Student - timetable
one to one