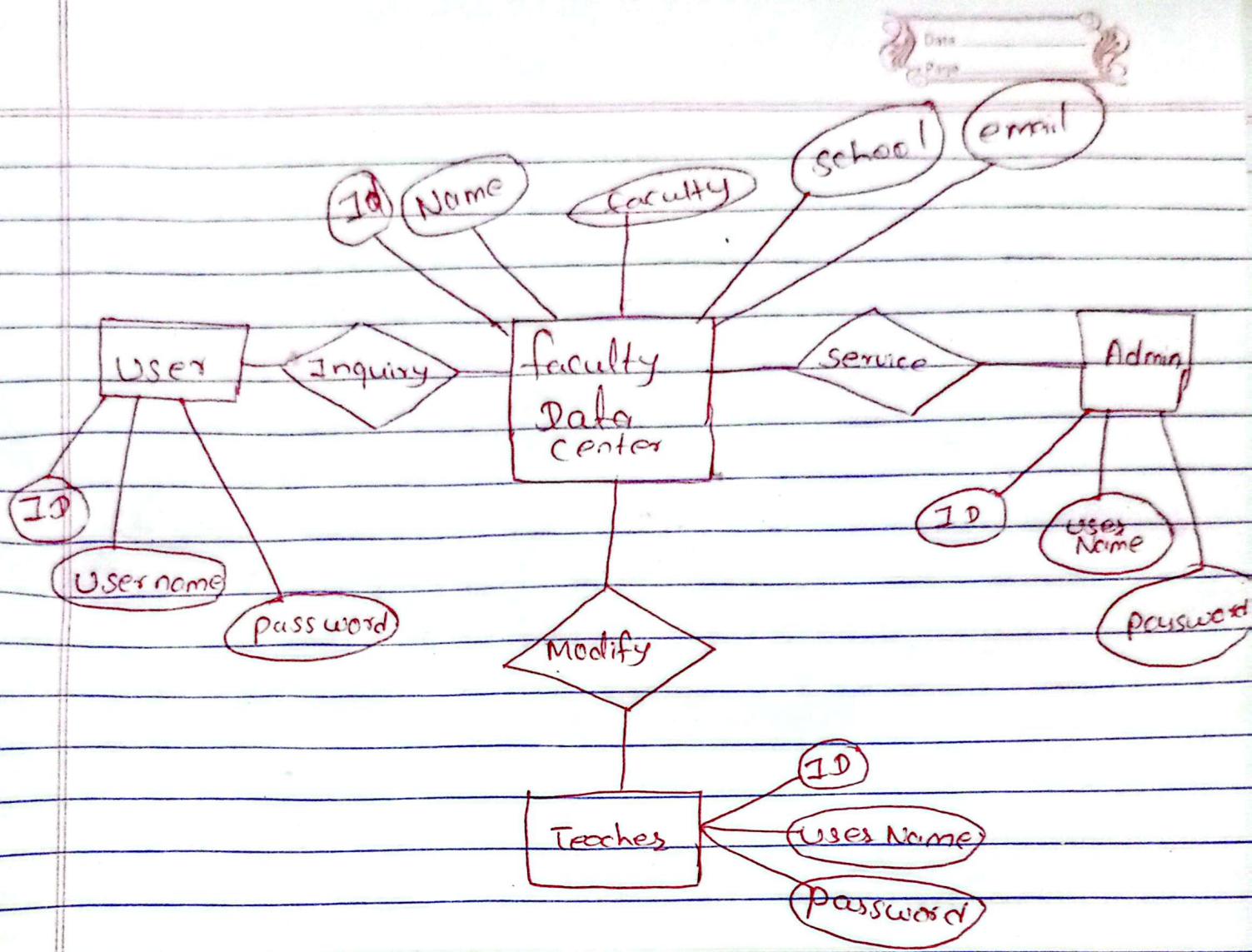


In this figure, we can see contain has one to many relation. One book can have multiple chapters and each chapter belongs to one book. Book ID is key attribute & Chapter ID is weak key attribute. Chapter can have Title and Chapter ID and also book have title & Book ID.

Book and chapter is two entity.



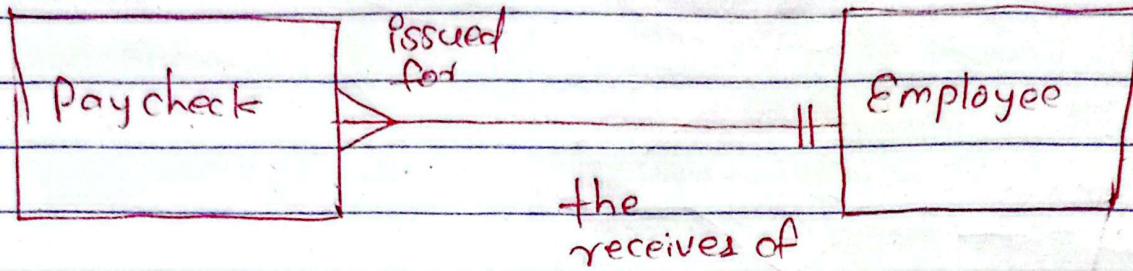
In the above figure, the faculty Data center has 3 ~~different~~^{main} entity User, Admin and Teacher and each entity has 3 different ~~entity~~ attributes. ID, User name and password.

The faculty data center acts as the central entity connected to all others. Relations ~~to~~ explains actions such as:

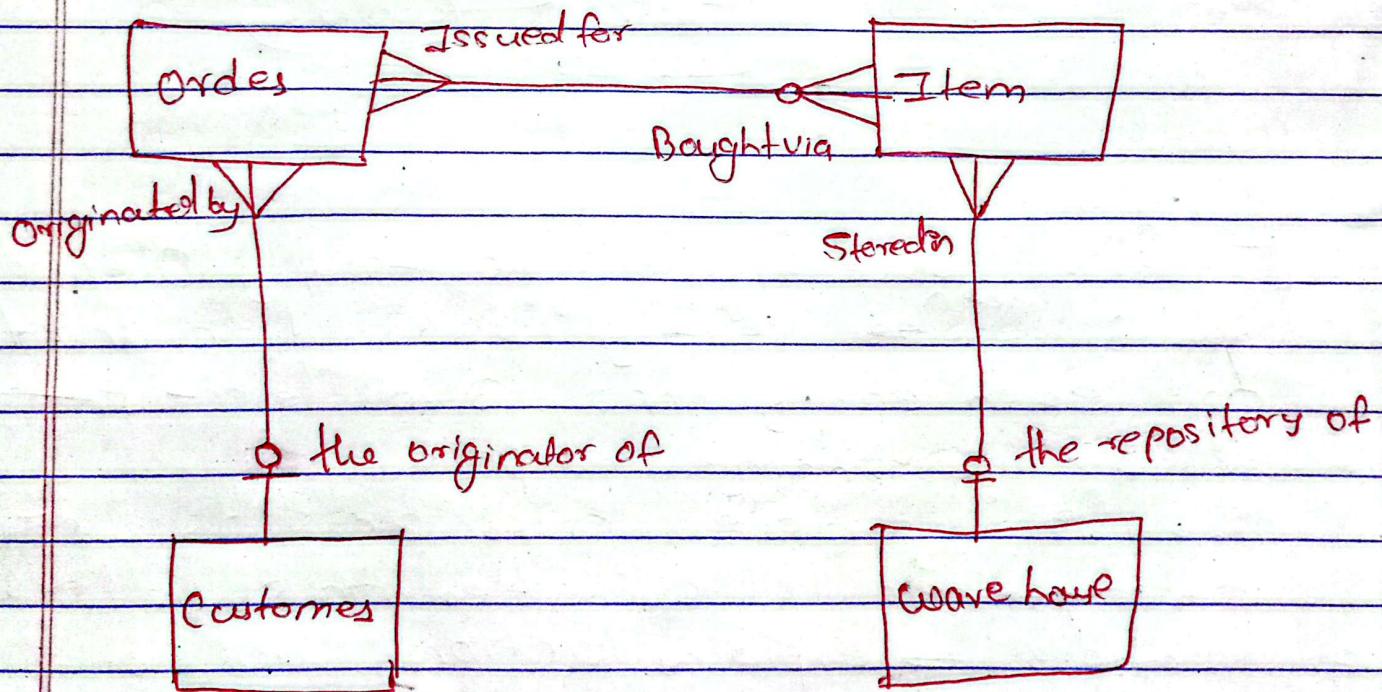
User → Inquiry

Admin → Service

Teacher → Modify.



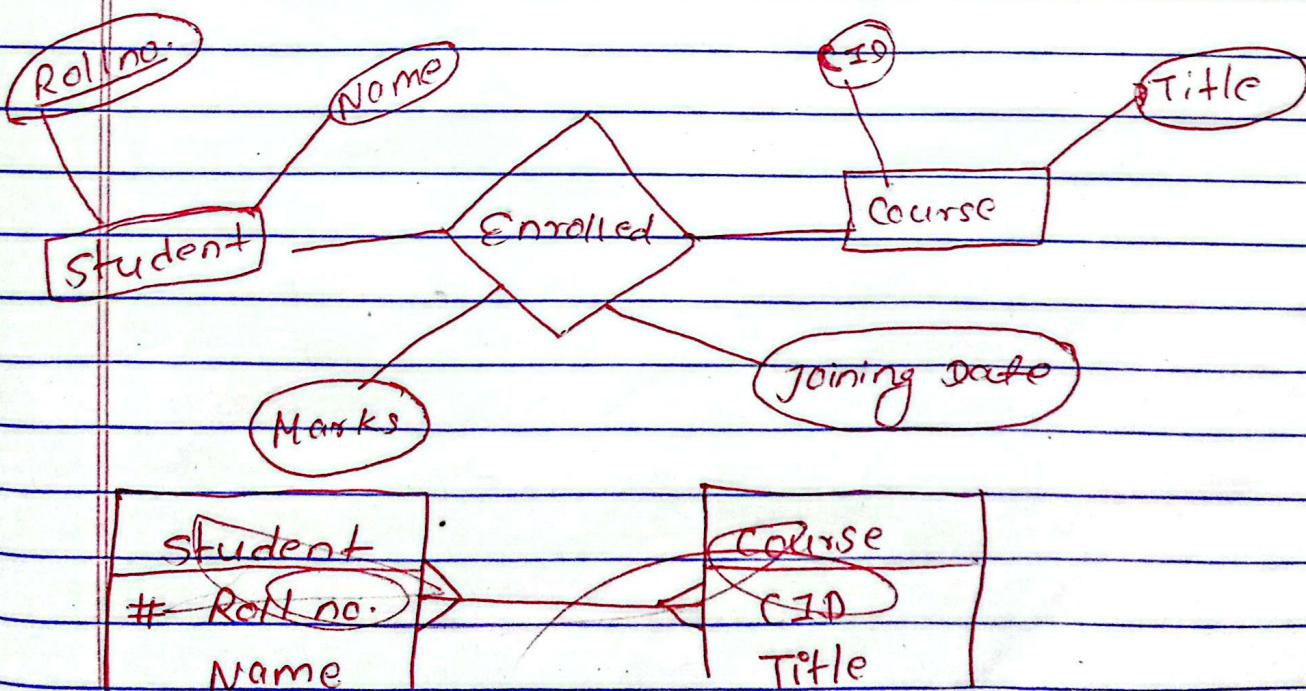
The above diagram explains that each paycheck must be issued for one & only one employee. Each employee may be the receiver of one or many paychecks.



The above diagram explains about the relationship betn ERM Diagram.

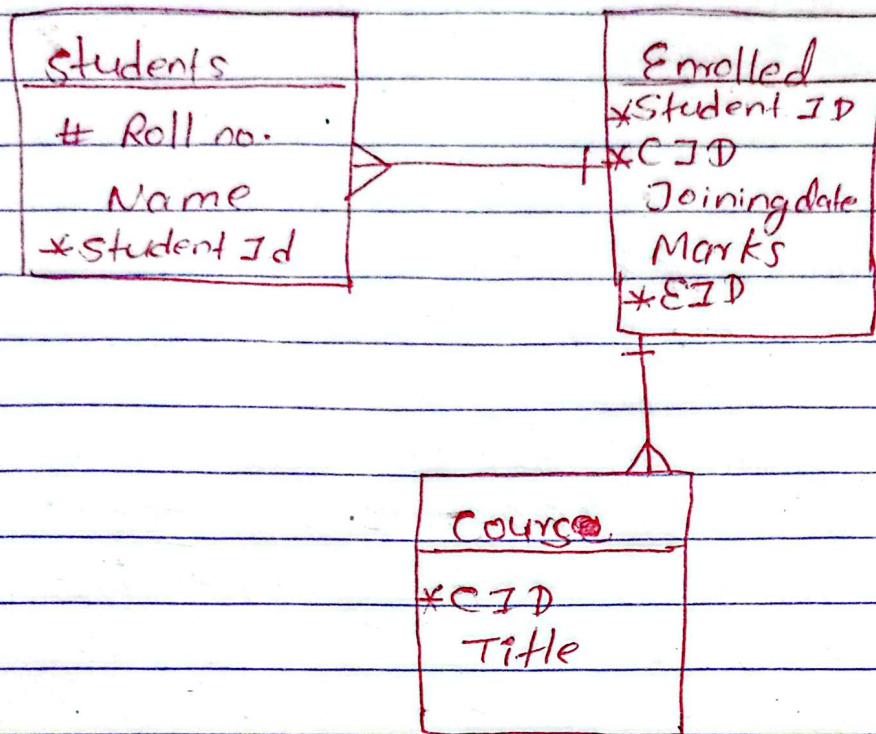
Each orders must be issued for one or more Items. Each item may be bought via one or more ORDERS. Each ORDER must be originated by one and only one CUSTOMER. Each CUSTOMER may be the originator of one or more ORDERS. Each ITEMS must be stored in one and only one warehouse. Each warehouse may be the repository of one or more ITEMS.

Relationship mapping

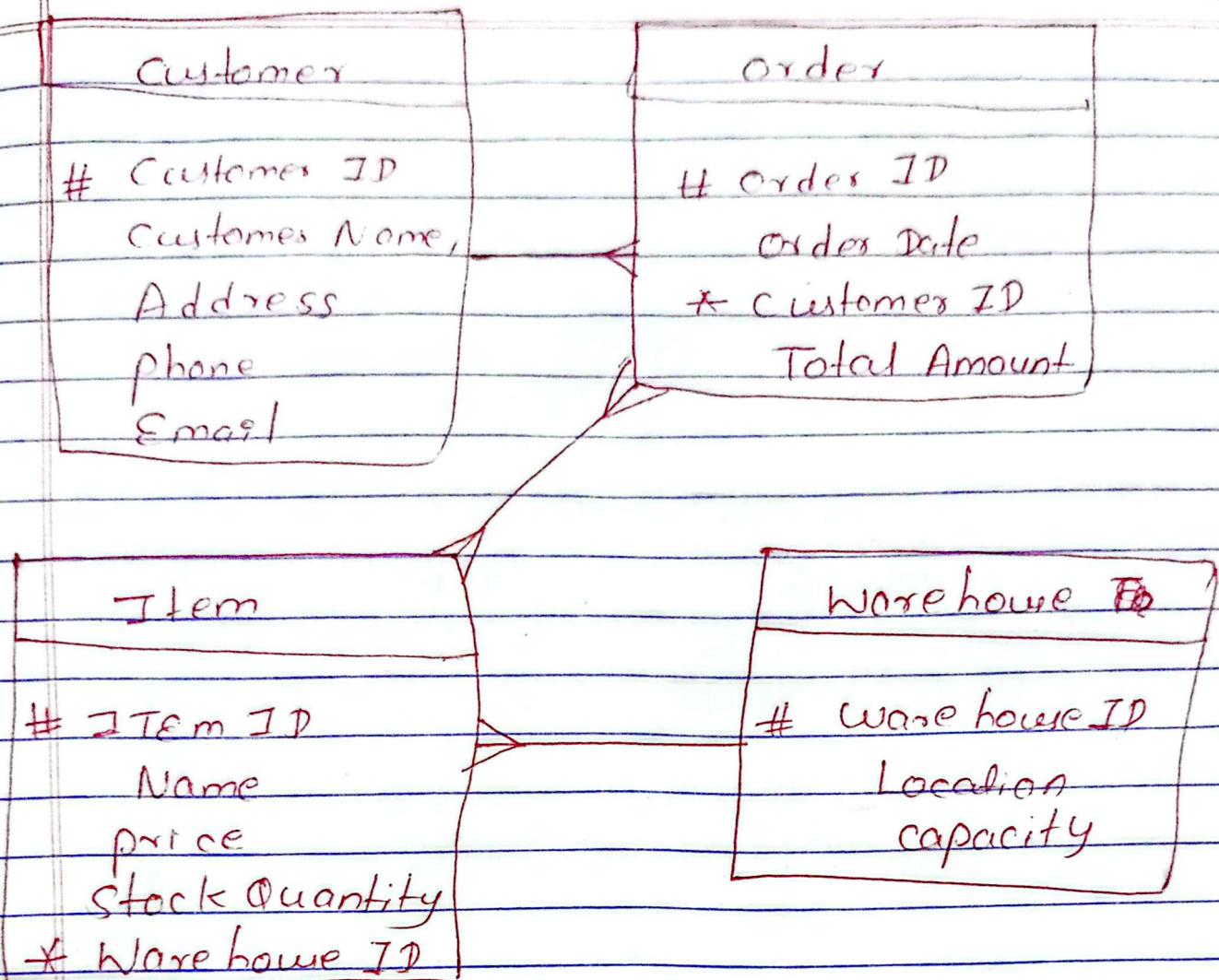


Bridge Table

Date _____
Page _____

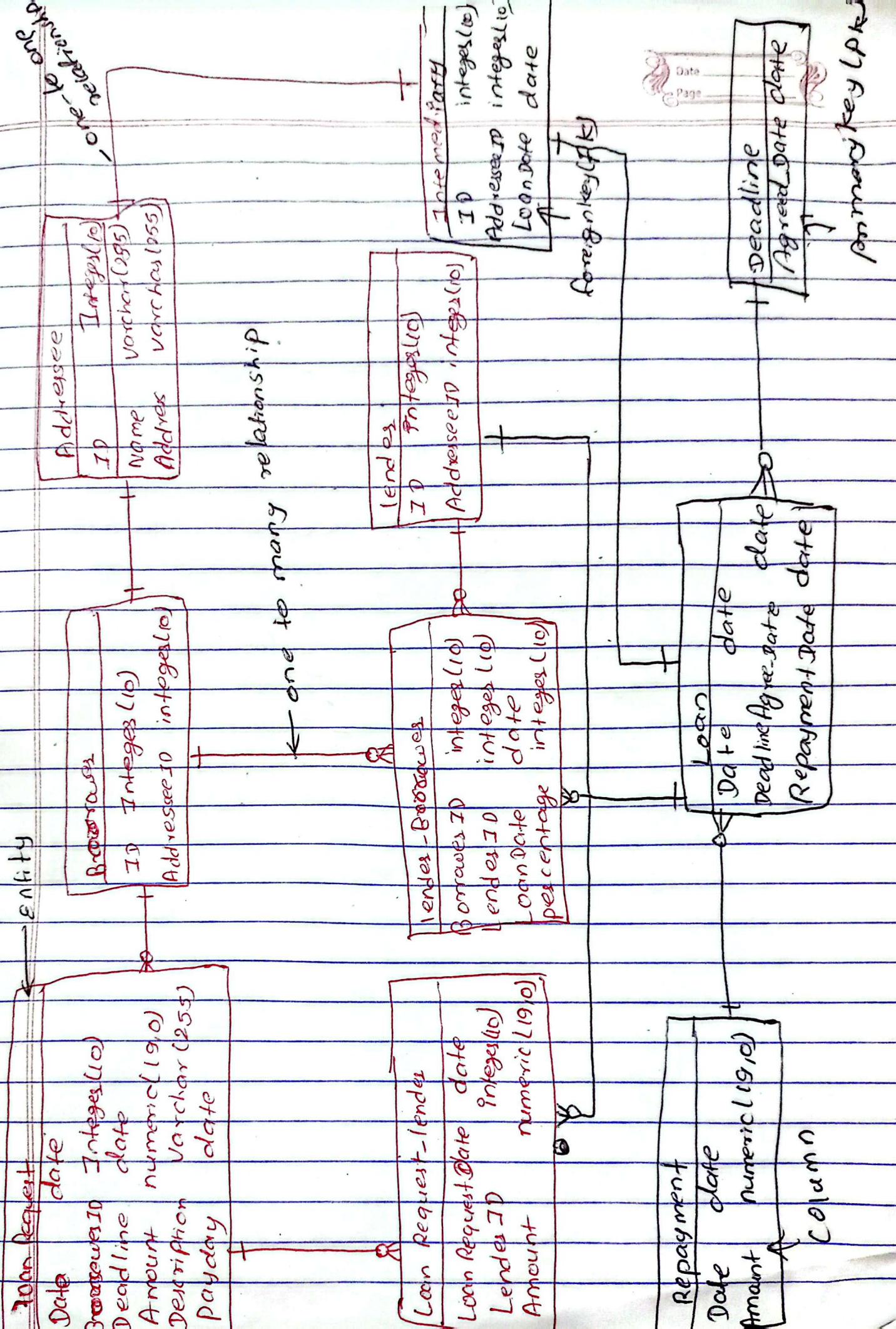


In this ^{above} ERD diagram, There are 3 entity i.e. Students, Enrolled and Course. ^{each} Students can enroll ~~as~~ multiple courses and each course can have multiple students enrolled. In Students, Roll no. is primary key & student ID, CID, EID is foreign key.



In the above RDM diagram, there are 4 Entities i.e. Order, Item, Customer & warehouse. customer places orders (i.e. it has one to many connection), one customer can place multiple orders & each order belongs to only one customer. Orders contains Items (Many-to-Many) ^{one}order can contain multiple items & one item can be part of multiple orders.

Items are stored in a warehouse (one-to-many), one warehouse can store multiple items & each item is stored in only one warehouse.



This ERD represents a loan management system involving Borrower, Lenders, Loan Request, Loans & Repayments. It shows how users request loans, how lenders provide them, & how repayments are tracked.

Entities of the Borrower represents a person who request or takes a loan. Each borrower is linked to one address. Lender represents a person who gives loans. & Each lender also has one address. Address stores address details. Address used by Borrowers, Lenders & Intermediary and helps avoid data redundancy i.e. (normalization). Loan Request represents a loan request made by a borrower. One borrower can make multiple loan requests. Loan Request & Lender acts as a bridge table b/w loan request & Lender. and represents which lender agrees to fund which loan request, & resolves a many to many relationship. Lender-Borrower represents a direct loan agreement b/w borrower & lender, stores interest percentage and loan date. Loan represents an approved & active loan created after loan request approval, connected to Repayment & Deadline. Repayment shows installments for a loan & One loan can have multiple repayments. Deadline stores final agreed repayment deadline for a loan. Intermediary shows a middle entity