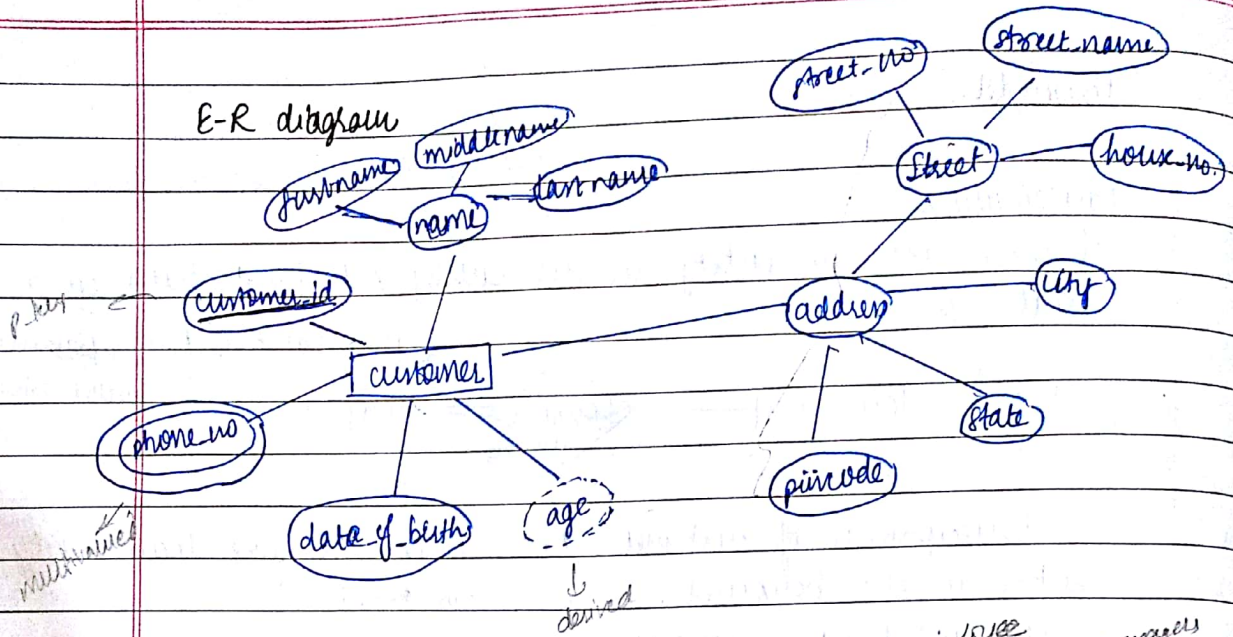
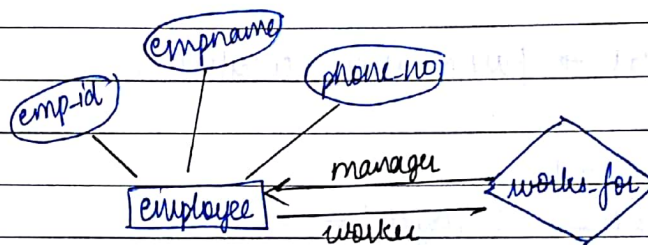


### E-R diagram



### Role indicator



employee	managers
1001	
1002	1001
1003	1001
1004	1002

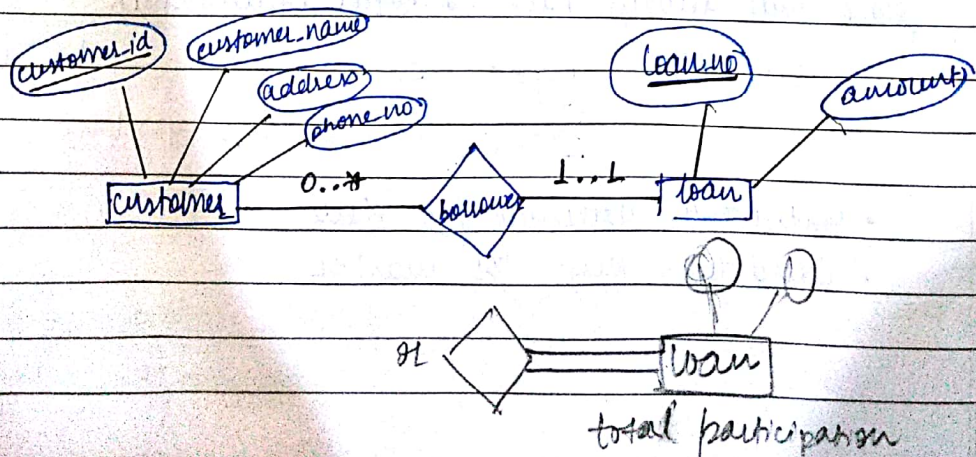
### Cardinality limits



Tells about how many times an entity in an entity set participates in a relationship.

l : lower limit  
h : higher limit

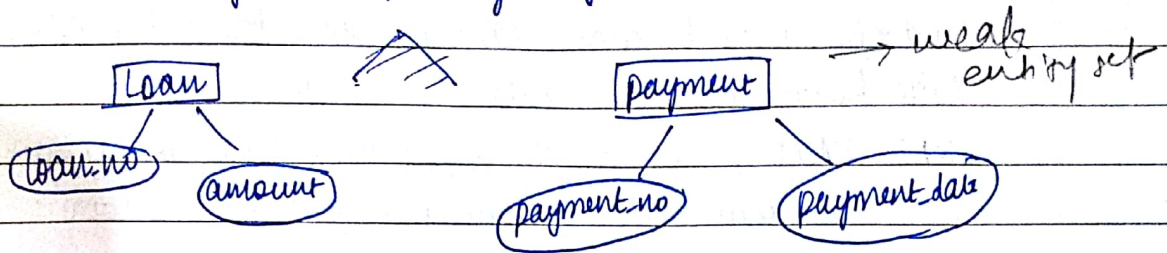
0 to \* : no limit (multiple participations)  
1 to \* : multiple participations





## # Weak entity set

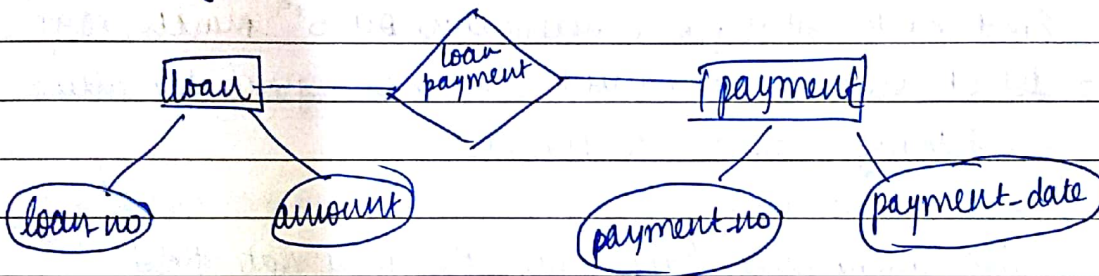
Such an entity set that doesn't have sufficient number of attributes to form a primary key.



what if some payments are done in installments

what if some day multiple repayments are done.

\* A weak entity set must always be associated with a strong entity set



(loan-no, payment-no) → composite primary key.

(composite attribute) → is normalization

\* In the above strong entity set identifies/owns the weak entity set. The relationship b/w them is called an identifying relationship.

