Lecture-13
SSA

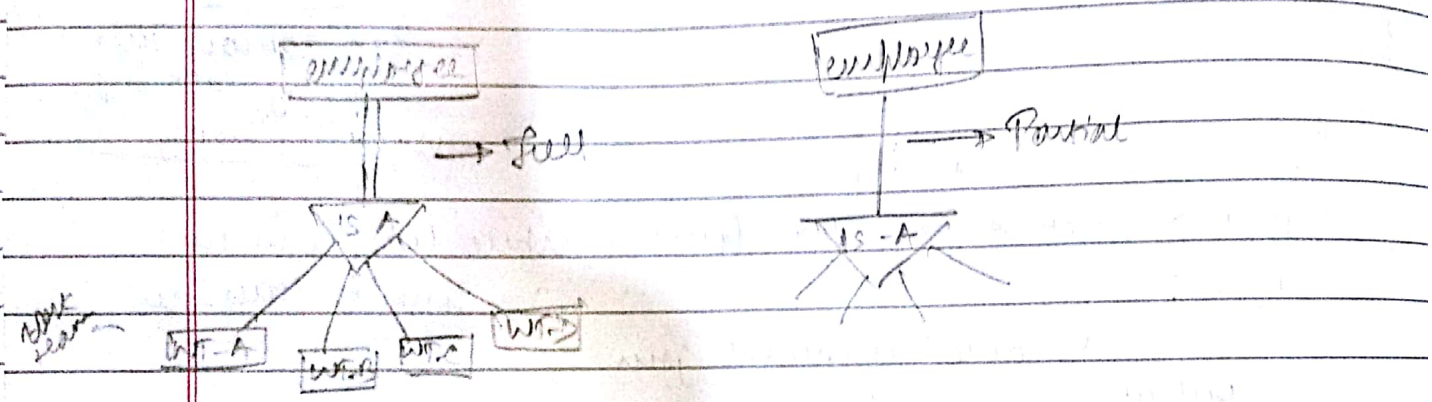
Date 19/02/18
Page

Constraints on generalization

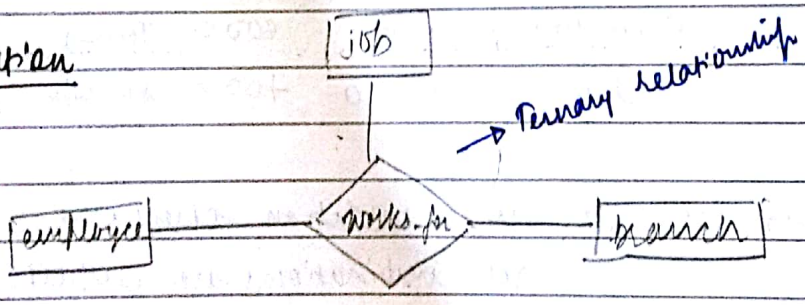
1.) Condition-defined
2.) User-defined
3) Disjoint
4) Overlapping
5) Completeness constraint

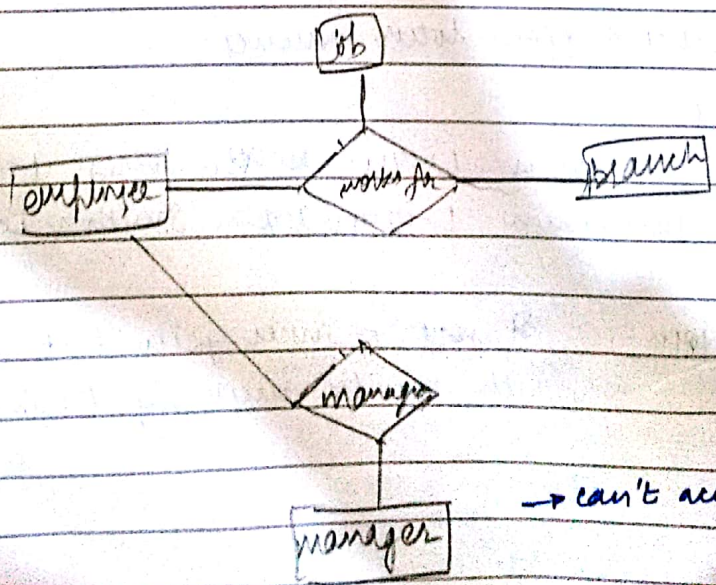
Total - The higher level entity set must belong to some lower level entity set

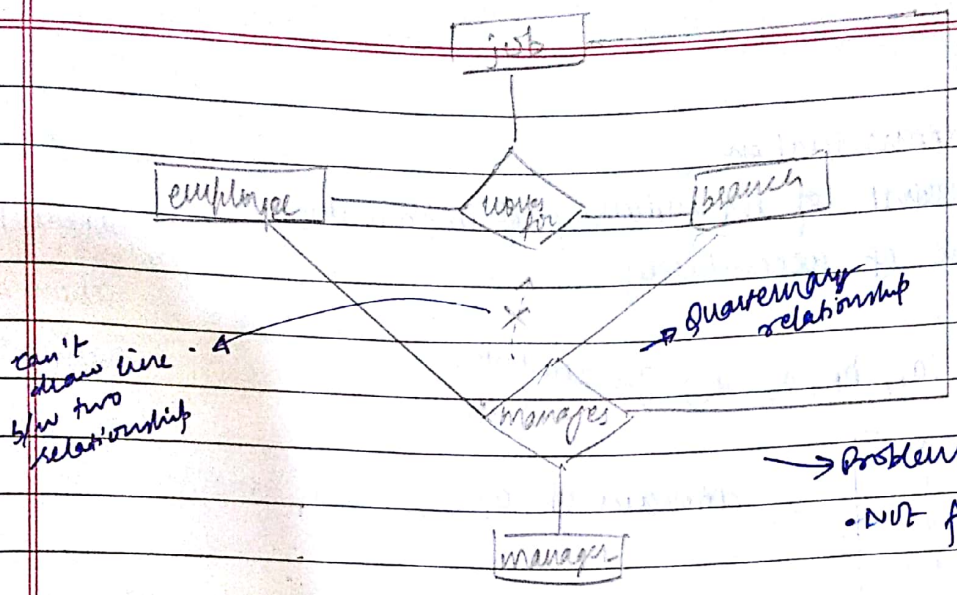
Partial - Not necessarily



Aggregation



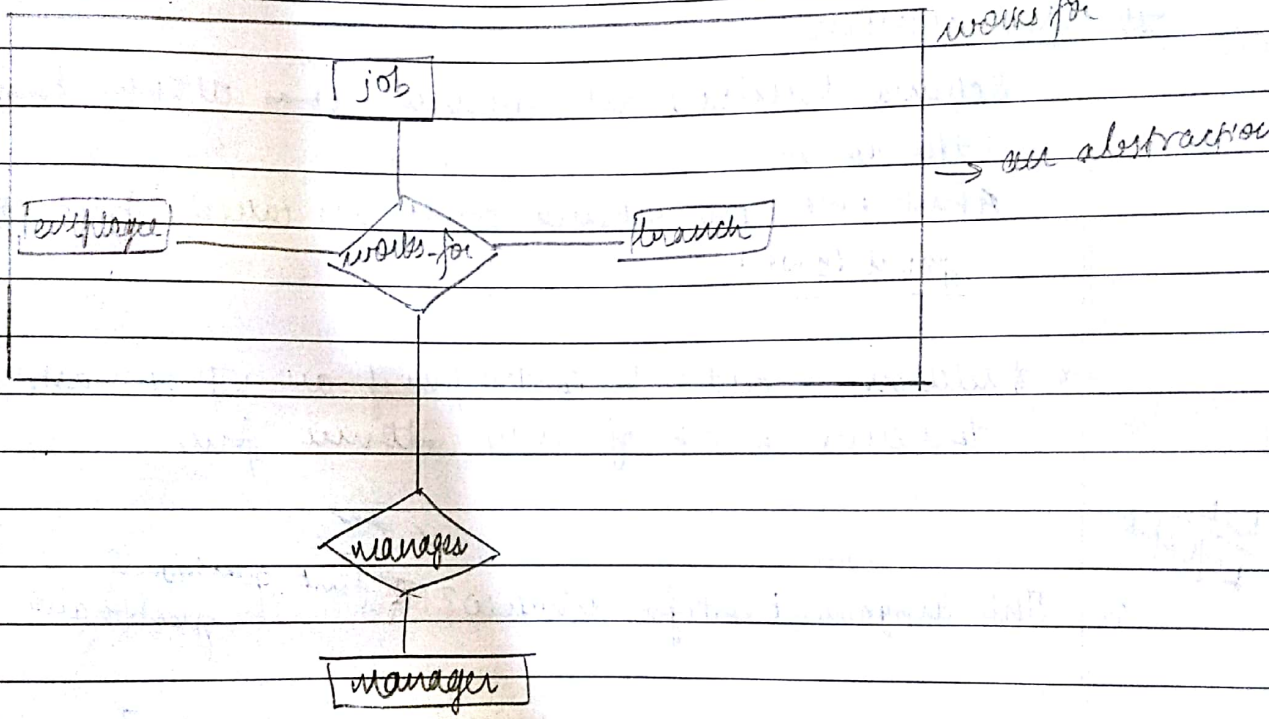




can't draw line between two relationship

→ Quaternary relationship

→ Problems!
- Not free of redundancy



→ use abstraction

Aggregation is a concept of aggregation in which a lower level entity set can be abstracted to a higher level entity set.

Relational database design

relation →

empno	ename	job	sal	dept_no
1001				
1002				
1003				

→ Record based model/structure
- Relation schema
- Relation instance

CLASSMATE
Date
Page

Design consideration

1) Removal of redundancy of information
2) Ease of accessibility

schema 1
↓
schema 2
↓
schema 3

$S_1(a_1, b_1, c_1, d_1)$] → attributes

a_1 [a_{11}, a_{12}, a_{13}, a_{14}] → domain of a_1

↳ each should be atomic (~~compound~~ indivisible)

Normalization

Schema having all attributes ~~in~~ in atomic form in the domain.

* Part time this schema comes, its called First normal form (1NF)

* A relation is said to be in 1NF form if all of it attribute domains consist of only atomic form.