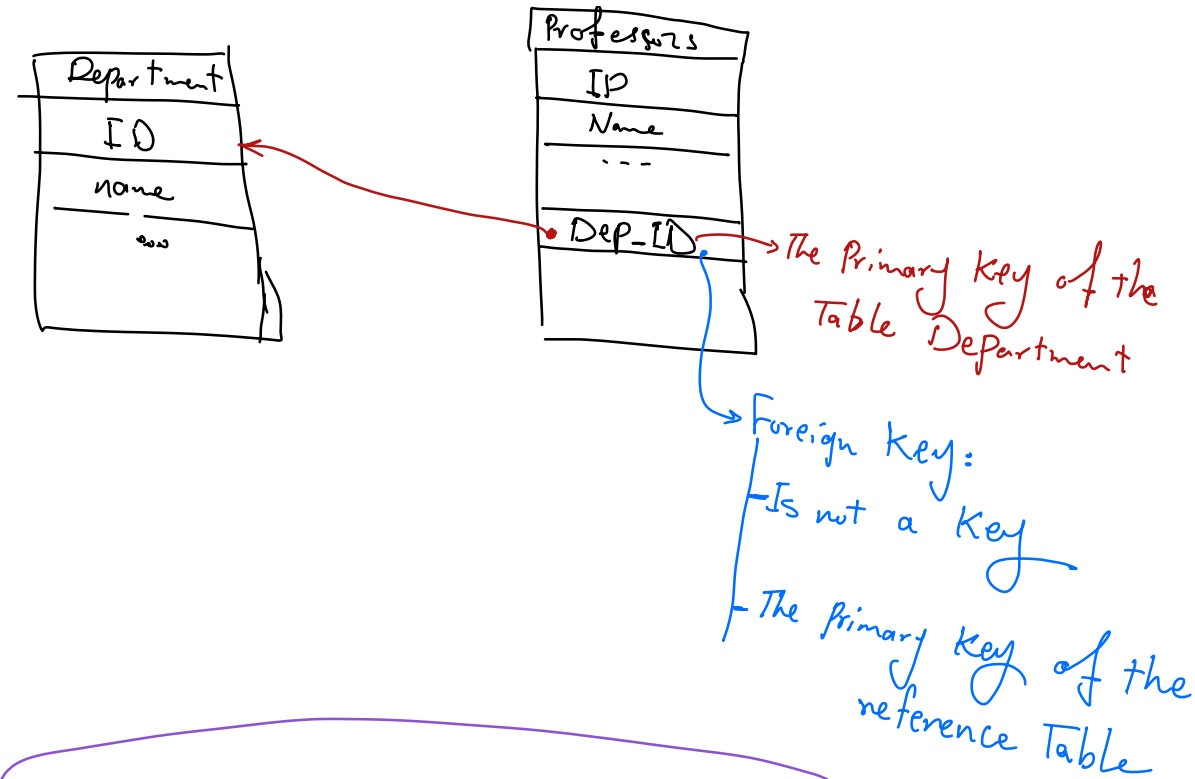


Department

ID	Name	...
1	CS	...
2	MIE	
3	EE	

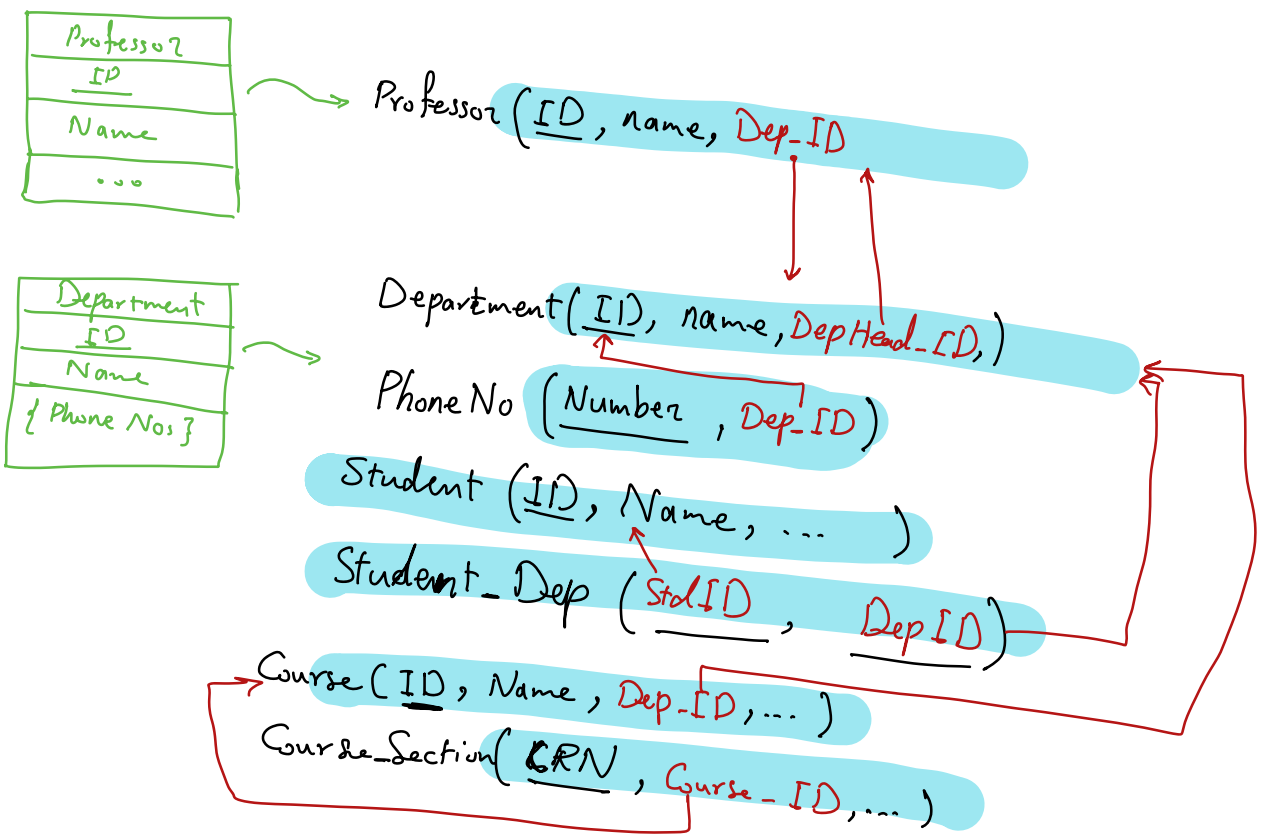
Professors

ID	name	Dep_ID	...
1	X	3	
4	Y	2	
3	Z	3	...
2	A	2	
5	B	1	
6	C	3	

ERD to Database Schema

1. Every Entity Translates to a Table
   - Single attributes → Columns
   - Composite attribute → Flat out to the atomic Sub-attributes
     - Name
       - Fname
       - lastname

     → | Fname | LName |
   - Derived attributes → Ignore (we don't Store them)
   - Multivalued attributes → New Tables

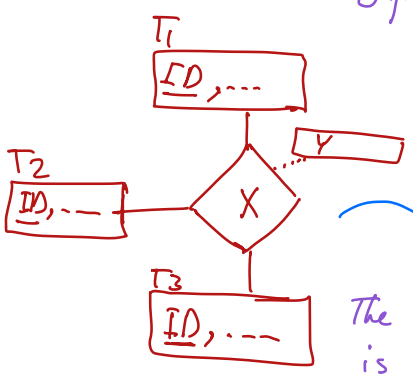


Rule 1: For [1-many / many-1] relationships:
↳ Add the Primary key of the 1-Side as a Foreign key to the many-Side

Rule 2: For 1-1 relationships: Add " " " " the optional Participation as " " " to the other side
↳ e.g.,: Add depHead_ID to the Table Department

Rule 3: For many-many relationships
Add a new Table,
that includes the Primary Key of all Participating Entites

e.g.



→ X (T1ID, T2ID, T3ID, Y)

The Combination of the Foreign keys is the Primary Key of the new Table X

For
Weak Entities, add a new Table